GENEREX BIOTECHNOLOGY CORP

FORM S-1
(Securities Registration Statement)

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Symbol GNBT
SIC Code 2834 - Pharmaceutical Preparations
Industry Biotechnology & Medical Research
Sector Healthcare
Fiscal Year 07/31
Registration No. 333-... with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, using the average of the high and low prices as reported on the OTCQB on February 12, 2020.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.
This prospectus relates to the offer and sale of up to 26,806,714 shares of common stock of Generex Biotechnology Corporation, by the selling stockholders.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholders.

One of the selling stockholders, Oasis Capital, LLC, or “Oasis”, is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended. The selling stockholders, including Oasis, may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. See “Plan of Distribution” for more information about how the selling stockholders may sell the shares of common stock being registered pursuant to this prospectus.

We will pay the expenses incurred in registering the shares, including legal and accounting fees. See “Plan of Distribution.”

Our common stock is quoted on the OTCQB under the symbol “GNBT.” On February 14, 2020, the last reported sale price of our common stock on the OTCQB was $0.64.

Our business and an investment in our securities involve a high degree of risk. See “Risk Factors” beginning on page 9 of this prospectus for a discussion of information that you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is ___, 2020.
You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with any information other than that contained in this prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus may only be used where it is legal to offer and sell our securities. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date. We are not making an offer of these securities in any jurisdiction where the offer is not permitted.

For investors outside the United States: We have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside the United States.
PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including our financial statements and the related notes and the information set forth under the headings “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in each case included elsewhere in this prospectus.

Unless the context otherwise requires, references to “we,” “our,” “us,” “Generex” or the “Company” in this prospectus mean collectively, Generex Biotechnology Corporation and its subsidiaries.

GENEREX BIOTECHNOLOGY CORPORATION

Overview

Historically, we have been a research and development company focused on the commercialization of Oral-lyn buccal insulin spray for diabetes. Since our new management team took over in January 2017, we have been reorganized as a strategic, diversified life science holding company that is actively involved in building a modern organizational platform for the financing, development, commercialization, and distribution of promising devices, biologics, therapeutic, and diagnostic products to improve human health. As the foundation for the reorganization, we are acquiring operating companies that provide multiple revenue streams through delivery of patient-focused healthcare products and services, including specialty pharmacy, orthopedic implants, surgical supplies, biologics, medical devices, and regenerative medicines. These foundational acquisitions service unique market channels that provide end-to-end healthcare solutions in partnerships with patients, physicians, health systems, and payors. We believe the synergistic business model of the combined organization offers cross channel sales opportunities for rapid growth.

Our new management team has embarked upon a complete strategic reorganization and transformation of the entire corporate structure, as further described below.

Recent Developments

On November 22, 2019, we entered into a stock Purchase Agreement for the purchase of 51% of the outstanding capital stock of GH Care, Inc. DBA ALTuCELL, Inc. (“ALTuCELL).

Under the purchase agreement, in exchange for the ALTuCELL stock, Generex agreed to deliver at closing shares of Generex common stock and $2,500,000 in cash, less any cash advanced by Generex prior to closing.

In addition to stock and cash at closing, Generex has agreed to pay up to an aggregate of $3,500,000 to ALTuCell upon ALTuCell’s attainment of certain milestones.

On January 27, 2020, Generex and ALTuCell executed an Amendment Agreement to the purchase agreement. Under the amendment, closing will occur within 30 days of the execution of the amendment, subject to the conditions to closing under the purchase agreement. The parties agreed that Generex will pay the $2.5 million closing payment from certain specifically identified sources.

If the closing is not completed within 30 days of execution of the amendment, the purchase agreement will lapse unless the parties agree in writing to continue the transaction. Under the amendment, Generex agreed to fund the ongoing operations of ALTuCELL during the extension period with a payment of $100,000, to be paid within 2 business days of signing the amendment. If ALTuCELL chooses to cancel the transaction as a result of delays due to forces beyond the control of Generex, including government regulatory delays or extended reviews by regulators that delay approvals of corporate actions, or by natural disasters or other unforeseen events beyond the control of Generex, ALTuCELL agrees to return all payments made by Generex.
Historical Business

Historically, we have been a research and development company focused on the commercialization of Oral-lyn buccal insulin spray for diabetes. Additionally, through our wholly-owned subsidiary Nugenerex Immuno-Oncology (formerly Antigen Express, Inc.) (“NGIO”), we have a deep intellectual property portfolio of immunotherapy assets relating to the “i-Key” technology that activates the immune response for the treatment of cancer and infectious diseases. We have completed a Phase Ib clinical trial of AE37 immunotherapeutic peptide vaccine with the i-Key technology in over 300 women with breast cancer.

In 2017, we acquired Hema Diagnostic Systems, LLC (“HDS”) (now NuGenerex Diagnostics, LLC (“NGDx”)) and their diagnostic product portfolio of rapid point-of-care EXPRESS test kits and cassettes for infectious disease testing.

We believe that these legacy diagnostics, diabetes and cancer assets are currently undervalued due to missteps in the clinical development process by previous management and resulting inability to raise capital necessary to fund further development, yet the products and IP portfolio retain significant value. As part of the reorganization plan, we placed our legacy assets into separate subsidiaries under the NuGenerex family of companies, including NuGenerex Diagnostics, Nugenerex Immuno-Oncology (Antigen Express), and NuGenerex Therapeutics (Oral-Lyn and RapidMist buccal delivery technology). Our strategy is to spin out NGIO as a separately traded public company, to reignite the Oral-Lyn development program with a reformulated buccal insulin spray, and to build out the diagnostics business, as detailed further below under “Business,” however there are no assurances that we will be able to accomplish our strategic objectives.

The “New” Generex & The NuGenerex Family of Subsidiary Companies

Through reorganization and acquisition, we are building the family of NuGenerex subsidiary companies to provide end-to-end solutions for physicians and patients. To that end, our subsidiary NuGenerex Distribution Solutions, LLC (“NDS” or “Nugenerex”) has established a network of physicians, ancillary service providers, and patients through a Management Services Organization (“MSO”). As the MSO network currently consists of orthopedic surgeons and podiatrists, we have acquired and/or have agreements to acquire a number of revenue-generating companies that manufacture, market and distribute surgical and wound healing products. The acquisitions include Olaregen Therapeutix Inc. (“Olaregen”), a regenerative medicine company that has recently launched Excellagen wound conforming gel, which is FDA-cleared for the management of 17 wound healing indications, and Regentys Corporation (“Regentys”), a clinical-stage development company with regenerative medicine technology for the treatment of inflammatory bowel diseases; Pantheon Medical, a manufacturer of patented, FDA-cleared foot & ankle kits with surgical plates, screws, and tools; and MediSource Partners, a licensed distributor of surgical supplies, orthopedic implants, and biologics, including human placental derived tissue products for regenerative medicine applications. Additionally, NDS will be launching a new software as a service (SaaS) business called DME-IQ that enables orthopedic surgeons to manage in-house programs for orthopedic durable medical equipment, including inventory controls, insurance adjudication, and patient billing. Together, under the banner of these subsidiary companies offer a range of products and services to meet the needs of our proprietary distribution channels. Cross selling of products and services will enhance the revenue opportunities for the entire family of NuGenerex subsidiaries.

Our corporate mission is to provide end-to-end solutions for physicians and patients through geographic expansion of our MSO model, diversification of management services offerings, the establishment of an HMO in partnership with Dr. Kiran Patel, and the proposed acquisition of an Accountable Care Organization for complex care.
The NuGenerex family of subsidiary companies offer a broad range of products and services to meet the needs of physicians and patients, including:

- **NuGenerex Distribution Solutions**: MSO, Ancillary Services, DME-IQ, and Surgical Products.
- **NuGenerex Regenerative Medicine**: Olaregen Therapeutix, Regentys.
- **NuGenerex Surgical Products**: Pantheon Medical – Foot & Ankle, LLC and MediSource Partners, LLC.
- **NuGenerex Health**: MSO/HMO with Dr. Kiran Patel; Ancillary health management services for chronic conditions – 65,000 + Patient population with Diabetes; Ophthalmology, Podiatry, Chronic Care Management (CCM).

Corporate Information

We were incorporated in the State of Delaware in 1997. Our principal offices are located at 10102 USA Today Way, Miramar, Florida 33025. Our telephone number is (416) 364-2551 and our Internet address is www.generex.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus. Copies of our current and periodic reports filed with the SEC are available online at www.sec.gov.

The Transactions under which the shares included in this Prospectus may be or were issued

**Oasis**

On November 25, 2019, we entered into a purchase agreement with Oasis, which we refer to in this prospectus as the “Oasis Purchase Agreement”, pursuant to which Oasis has agreed to purchase from us up to $40,000,000 of our common stock at 92% of the market price for the period of five (5) consecutive trading days immediately subject to a put notice on such date on which the purchase price is calculated in accordance with the terms and conditions of the agreement (subject to certain limitations) from time to time over a 36-month period. We also issued to Oasis 1,228,501 shares under the Oasis Purchase Agreement upon execution thereof. Also on December 6, 2019, we entered into a registration rights agreement, or the “Oasis Registration Rights Agreement”, with Oasis, pursuant to which we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act of 1933, as amended, or the Securities Act, 15,542,133 of the shares that have been or may be issued to Oasis under the Oasis Purchase Agreement.

This prospectus covers the 1,228,501 shares (the “Commitment Shares”) of our common stock that we have already issued to Oasis as consideration for Oasis’s commitment to purchase additional shares of our common stock pursuant to the Oasis Purchase Agreement. Oasis will be required to return half of such shares to the Company if the Company determines, in its discretion, to terminate the Oasis Purchase Agreement within 6 months of this registration statement being declared effective. This prospectus also covers an additional 14,313,632 shares of our common stock which may be issued to Oasis in the future pursuant to the Oasis Purchase Agreement.

We do not have the right to commence any further sales to Oasis under the Oasis Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part. Thereafter, we may, from time to time and at our sole discretion, direct Oasis to purchase up to the lesser of (i) 200% of the average daily trading volume of our common stock for the ten prior trading days or (ii) $500,000 of our common stock on any business day, provided the lowest traded price of our common stock in the five prior trading days exceeds $0.01. Except as described in this prospectus, there are no trading volume requirements or restrictions under the Oasis Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Oasis. The purchase price of the shares that may be sold to Oasis pursuant to the Oasis Purchase Agreement will be equal to 92% of the highest traded price of our common stock during the five consecutive trading days immediately following the date Oasis receives the shares being purchased (provided that, such five-day period will begin on the date Oasis receives such shares via DWAC if Oasis receives such shares prior to 11am CST). We may at any time in our sole discretion terminate the Oasis Purchase Agreement, except while Oasis owns any shares purchased thereunder. Oasis may not assign or transfer its rights and obligations under the Oasis Purchase Agreement.

As of December 6, 2019, there were 47,404,831 shares of our common stock outstanding, of which 46,626,398 shares were held by non-affiliates. Although the Oasis Purchase Agreement provides that we may sell up to $40,000,000 of our common stock to Oasis, only 15,542,133 shares of our common stock that may be issued and sold to Oasis under the Oasis Purchase Agreement are being offered under this prospectus, which represents (i) the 1,228,501 Commitment Shares that we issued to Oasis as a commitment fee, and (ii) an additional 14,313,632 shares which may be issued to Oasis in the future under the Oasis Purchase Agreement. If all of the 15,542,133 shares (inclusive of the 1,228,501 Commitment Shares issued to Oasis), offered by Oasis under this prospectus were issued and outstanding as of the date hereof, such shares would represent 24.6% of the total number of shares of our common stock outstanding and 25.0% of the total number of outstanding shares held by non-affiliates, in each case as of the date hereof. If we elect to issue and sell more than the 15,542,133 shares offered under this prospectus to Oasis, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Oasis is dependent upon the number of shares we sell to Oasis under the Oasis Purchase Agreement.

We may not issue shares to Oasis under the Oasis Purchase Agreement to the extent such issuance would result in Oasis beneficially owning more than 4.99% of our outstanding common stock.

Issuances of our common stock in this offering will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of any such issuance. Although the number of shares of common stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuance to Oasis.
Discover

On December 9, 2019, we entered into a purchase agreement with Discover Growth Fund LLC (“Discover”), pursuant to which we issued and sold to Discover an original issue discount convertible note (the “Discover Note”) in the principal amount of $2,200,000, for a purchase price of $2,000,000. We also issued to Discover 100,000 shares of common stock. The Discover Note bears interest at the initial rate of 12% per year (subject to adjustment under certain conditions), payable upon repayment, maturity or conversion. The Company may prepay the Discover Note upon 30 trading days’ prior written notice, by paying 120% of the then-outstanding face value of the Discover Note. The Discover Note is convertible into common stock at the option of the holder commencing on the earlier of six months after the issuance date or the effective date of the registration statement which register the resale of the shares issuable upon conversion of the Discover Note.

The number of shares issuable upon such conversion will be equal to the face value being converted divided by the conversion price. The conversion price was initially equal to 95% of the average of the 5 lowest individual daily weighted daily volume weighted average prices of the common stock during the period beginning on the issuance date and ending on the maturity date), less $0.05 per share, subject to adjustment. As a result of the trigger event that occurred under the Discover Note, as discussed below, this 95% amount has been reduced to 80%.

Because the conversion price, as defined under the Discover Note, cannot be determined prior to the maturity date, such conversion price may not be determinable at the time of a conversion by the holder. The number of conversion shares initially issued upon such a conversion will thus be based on an estimated conversion price. In the event the market price of our common stock subsequently falls, resulting in a lower actual conversion price than such estimated conversion price, the holder will be entitled (upon notice to the Company) to additional shares of common stock for any conversion effected under such lower estimated conversion price. This may result in substantial dilution to our stockholders.

The Discover Note is also subject to conversion at the option of the Company, subject to certain conditions.

We may not issue shares upon conversion of the Discover Note to the extent such issuance would result in the holder beneficially owning more than 4.99% of our outstanding common stock.

The Company will have the option, within one trading day of the effectiveness of the registration statement for the resale of the shares issuable upon conversion of the Discover Note being declared effective, to sell to Discover an additional original issue discount note in the principal amount of $275,000, for a purchase price of $250,000.

The Company was required to file a registration statement for the shares issuable upon conversion of the Discover Note within 30 days of execution of the Discover Note and the Company failed to comply with this requirement in a timely fashion. This failure constitutes a “trigger event” under the Discover Note, as a result of which the conversion price has been reduced, as discussed above, and the interest rate has increased to 22%.

This prospectus includes the resale of 11,100,000 shares of common stock issued or issuable to Discover, including 100,000 shares upon execution of the purchase agreement with Discover, and 11,000,000 shares of common stock issuable upon conversion of the Discover Note. Such 11,000,000 shares represent our estimate of the amount of the amount of shares we may issue under conversion of the Discover Note, based upon the conversion terms of the Discover Note and recent trading prices of our common stock.

Auctus

On August 14, 2019, we entered into a securities purchase agreement (the “Auctus Purchase Agreement”) with Auctus Fund, LLC (“Auctus”), pursuant to which we issued and sold to Auctus a convertible note (the “Convertible Note”) in the principal amount of $1,100,000. The Auctus Note is due August 14, 2020, bears at interest at the rate of 10%, due at maturity, acceleration, or prepayment, and is convertible to common stock at a conversion price equal to 80% of the lowest trading price for the common stock for the 10 trading day period prior to the conversion date.
In connection with the Auctus Purchase Agreement, we also issued to Auctus warrants (the “Auctus Warrants”) to purchase up to 62,857 shares of common stock at an exercise price of $3.50, subject to adjustment. The Auctus Warrants have a term of five years and may be exercised cashlessly if the SEC has not permitted the Company to include shares underlying the Auctus Warrants on an effective registration statement for resale at prevailing market prices. We also had issued to Auctus, as a commitment fee, 1,000,000 shares of common stock of Antigen.

In connection with the Auctus Purchase Agreement, we entered into a registration rights agreement with Auctus, pursuant to which we agreed to register for resale the shares underlying the Auctus Warrants. We were required to file such registration statement within 60 days of the date of such registration rights agreement. We failed to comply with this obligation on a timely basis, resulting in a default under the Auctus Note.

The Auctus Note and Auctus Warrant may not converted or exercised, as applicable, to the extent such conversion or exercise would result in the holder beneficially owning more than 4.99% of our outstanding common stock.

The prospectus includes the resale of 62,857 shares of common stock underlying the Auctus Warrant.

**MDT**

This prospectus also includes the resale of the 23,293 shares of common stock by MDT Plano, Inc. (“MDT”) We issued such shares to MDT in December 2019 pursuant to a satisfaction and release agreement between us and MDT.

**H2 Consulting**

This prospectus also includes the resale of 78,431 shares of common stock issued in February 2020 to Harmon-Herring Consulting, LLC (“H2 Consulting”) pursuant to an engagement agreement with H2 Consulting.
Any investment in our securities involves a high degree of risk. Investors should carefully consider the risks described below and all of the information contained in this prospectus before deciding whether to purchase our securities. Our business, financial condition and results of operations could be materially adversely affected by these risks. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks we face as described below and elsewhere in this prospectus.

Risks Related to Our Financial Condition

We will be required to raise additional funds to finance our operations and remain a going concern; we may not be able to do so when necessary, and/or the terms of any financings may not be advantageous to us.

Our operations to date have consumed substantial amounts of cash and we have sustained negative cash flows from our operations for the last several years. We will require future additional capital infusions including public or private financing, strategic partnerships or other arrangements with organizations that have capabilities and/or products that are complementary to our own capabilities and/or products, in order to continue the development of our product candidates. However, there can be no assurances that we will complete any financings, strategic alliances or collaborative development agreements, and the terms of such arrangements may not be advantageous to us. Any additional equity financing will be dilutive to our current stockholders and debt financing, if available, may involve restrictive covenants. If we raise funds through collaborative or licensing arrangements, we may be required to relinquish, on terms that are not favorable to us, rights to some of our technologies or product candidates that we would otherwise seek to develop or commercialize. Our failure to raise capital when needed could materially harm our business, financial condition and results of operations.

We have a history of losses and will incur additional losses.

Historically, we have been a clinical development company with a limited line of commercial products in international markets. In 2018, we began to realize revenues resulting from the acquisition of the Veneto assets and operations. In 2019, we launched our first commercial product Excellagen, which we expect to generate ongoing revenues going forward. While we have begun to generate revenues, we are still operating at a loss, and there is no guarantee that we will be able to grow the revenues enough to offset our costs to realize profitability.

To date, we have not been profitable and our accumulated net loss available to shareholders was $428 million at October 31, 2019. Our losses have resulted principally from costs incurred in research and development, including clinical trials, and from general and administrative costs associated with our operations. In order to commercialize our historical assets and our recently acquired product pipeline, we will need to conduct substantial additional research, development and clinical trials. We will also need to receive necessary regulatory clearances both in the United States and foreign countries and obtain meaningful patent protection for and establish freedom to commercialize each of our product candidates. We must also complete further clinical trials and seek regulatory approvals for any new product candidates we discover, in-license, or acquire. We cannot be sure that we will obtain required regulatory approvals, or successfully research, develop, commercialize, manufacture and market any other product candidates. We expect that these activities, together with future general and administrative activities, will result in significant expenses for the foreseeable future. We may never achieve profitability.

Our disclosure controls and procedures and internal controls over financial reporting may not be effective in future periods as a result of existing or newly identified material weaknesses in internal controls.

Effective internal controls are necessary for us to provide reasonable assurance with respect to our financial reports and to effectively prevent fraud. If we cannot provide reasonable assurance with respect to our financial reports and effectively prevent fraud, our reputation and operating results could be harmed. Pursuant to the Sarbanes-Oxley Act of 2002, we are required to furnish a report by management on internal control over financial reporting, including management’s assessment of the effectiveness of such control. If we fail to maintain the adequacy of our internal controls, including any failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business and operating results could be adversely impacted, we could fail to meet our reporting obligations, and our business and stock price could be adversely affected.
As of October 31, 2019, our Chief Executive Officer and Chief Financial Officer evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) and concluded that, subject to the inherent limitations, our disclosure controls and procedures were not effective due to the existence of several significant deficiencies culminating in material weaknesses in our internal control over financial reporting because of inadequate segregation of duties over authorization, review and recording of transactions, as well as the financial reporting of such transactions.

We have been working and are currently working to remediate the material weaknesses described above, including assessing the need for additional remediation steps and implementing additional measures to remediate the underlying causes that gave rise to the material weaknesses. We believe we have taken appropriate and reasonable steps to make the necessary improvements to remediate these deficiencies, however we cannot be certain that our remediation efforts will ensure that our management designs, implements and maintains adequate controls over our financial processes and reporting in the future or that the changes made will be sufficient to address and eliminate the material weaknesses previously identified. Our inability to remedy any additional deficiencies or material weaknesses that may be identified in the future could, among other things, have a material adverse effect on our business, results of operations and financial condition, as well as impair our ability to meet our quarterly, annual and other reporting requirements under the Securities Exchange Act of 1934 in a timely manner, and require us to incur additional costs or to divert management resources.

Our research and development and commercialization efforts may depend on entering into agreements with corporate collaborators.

Because we have limited resources, we have sought to enter into collaboration agreements with other pharmaceutical companies that will assist us in developing, testing, obtaining governmental approval for and commercializing products. We may be unable to achieve commercialization of any of our products until we obtain a large pharmaceutical partner to assist us in such commercialization efforts. To date, we have entered into a collaborative development program with Merck to evaluate our immunotherapeutic peptide vaccine AE37 in combination with Merck’s Keytruda for the treatment of triple negative breast cancer in a phase II clinical trial, however, this collaboration only involves the donation of Keytruda for the clinical trial, and any future financial commitment from Merck for a co-development deal is dependent on the successful completion of the trial. There is no guarantee that the results of the trial will be positive, or that Merck will continue the collaboration with financial support.

Additionally, we have out-licensed AE37 for the immunotherapeutic treatment of prostate cancer to Shenzhen Bioscien (“Shenzhen”), a Chinese biopharmaceutical company that has agreed to fund the development of AE37 for prostate cancer through a clinical development program conducted under ICH guidelines that would allow global registration of the AE37 product in the prostate cancer indication. The development deal includes upfront and milestone payments to Generex, together with a double-digit royalty on sales of AE37 in China in exchange for the rights to AE37 for prostate cancer treatment in China, with the ex-China global rights remaining with us. Though Shenzhen has made an upfront payment of $700,000 to us, there is no guarantee that they will continue to fulfill their contractual obligations to advance the clinical development of AE37 for prostate cancer. Further, there is no guarantee that AE37 will prove to be safe and efficacious for the treatment of prostate cancer, or that the product will be approved by regulatory authorities.

Moving forward, we will need to expand current collaborations and develop new collaborations to advance new products that Generex and its subsidiaries may wish to commercialize. We will continue to seek research collaborations, co-development and marketing agreements, and licensing deals for its products in development, however, there is no guarantee that we will be successful in our efforts.
Risks Related to Our Business

We have reorganized our business model to transform us from a research & development biotechnology company to an integrated life science and healthcare holding company that generates revenues through its subsidiary companies. There is no guarantee that this business transformation will be successful.

Since our new management team took control in January 2017, we have focused our efforts on making strategic acquisitions that will form the foundation for building an end-to-end business model for the delivery of products and services through proprietary market channels to physicians and patients. The initial step in the process was the acquisition of the Veneto group of assets that provided an operating MSO with revenues, a network of physician partners (primarily orthopedic surgeons and podiatrists), contracts with ancillary health services companies, including pharmacies and laboratories, and infrastructure, personnel, and IT systems that are scalable to meet the demands of growth. With the goal of adding new products and services that can be utilized by the MSO physicians in our proprietary network, we have acquired, and are in the process of acquiring revenue-generating companies in the fields of wound care, surgical supplies, orthopedic implants, artificial joints, biologics, medical devices, and regenerative medicine products. There are a number of risks associated with this end-to-end healthcare model, and there is no guarantee that the model will deliver the expected revenues and profits going forward.

As we evolve from being a company that was primarily involved in clinical development to a company that is also involved in commercialization of novel products, including manufacturing, distribution, and utilization, we may encounter difficulties in expanding our operations successfully.

We have been reorganized as a life science and healthcare holding company, with wholly-owned and majority-owned subsidiaries that operate independently. Our operating subsidiaries are led by management teams who are responsible for operating the businesses and achieving corporate revenue and profit targets. Our corporate strategy is to unite the subsidiary companies, together with the NuGenerex family of companies, through shared client access, cross-selling opportunities, share services, and joint development programs. If the subsidiary companies do not work together to build the organization as envisioned, we may not realize the revenue and profit expectations that are based on the synergies among our subsidiaries to drive intra-company sales.

As we pursue our plans to reorganize the historical Generex clinical stage assets into separate operating subsidiaries that can more effectively advance the clinical development and commercial value of our product pipeline, we may encounter difficulties in obtaining the financing necessary to support our clinical development programs.

Through the corporate restructuring, we have formed three subsidiaries to house the historical Generex assets, including NuGenerex Immuno-Oncology, NuGenerex Diagnostics (NGDx), and NuGenerex Therapeutics (housing the Oral-Lyn oral insulin product and the RapidMist buccal delivery technology). Each of these subsidiaries require significant funds and commercialization partners to advance their products and technologies through the clinical development and regulatory processes necessary to achieve product commercialization. We may not be able to obtain the necessary funds or find corporate partners to commercialize our historical assets, which will negatively affect the value of these assets.

We may not be able to unlock the intrinsic value of our historical development pipeline, because we may encounter difficulties in financing and operating our commercial development programs successfully.

As we advance our product candidates through clinical trials, we will need to expand our development, regulatory, manufacturing, marketing and sales capabilities, and may need to further contract with third parties to provide these capabilities. As our operations expand, we likely will need to manage additional relationships with such third parties, as well as additional collaborators, distributors, marketers, and suppliers.
Maintaining third party relationships for these purposes will impose significant added responsibilities on members of our management and other personnel. We must be able to manage our development efforts effectively; recruit and train sales and marketing personnel; manage our participation in the clinical trials in which our product candidates are involved effectively; and improve our managerial, development, operational and finance systems, all of which may impose a strain on our administrative and operational infrastructure.

If we enter into arrangements with third parties to perform sales, marketing, or distribution services, any product revenues that we receive, or the profitability of these product revenues to us, are likely to be lower than if we were to market and sell any products that we develop without the involvement of these third parties. In addition, we may not be successful in entering into arrangements with third parties to sell and market our products or in doing so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our products.

*Future business combinations or acquisitions may be difficult to integrate, which could cause us to shift our attention away from our primary business and its operations.*

We may pursue future business combinations with other companies or strategic acquisitions of complementary businesses, product lines, or technologies. There can be no assurance that such acquisitions will be available at all, nor on terms acceptable to us. These transactions may require additional capital, which may increase our indebtedness or outstanding shares, resulting in a dilution to our stockholders or a reduction in working capital. The inability to obtain such future capital may inhibit our growth and operating results. Integration of acquisitions or additional products can be costly, time-consuming, and complicated which could significantly impact operating results. Furthermore, the integration of any acquisition may disproportionally divert our executive team’s time and resources from our primary business and its operations. We may sell some or all of our product lines to other companies or we may agree to merge with another company. There can be no assurance that future transactions will ultimately benefit us. If we face difficulty integrating future acquisitions or if our executive team’s attention is diverted, our future results of operations may negatively impact our business, results of operations, and financial condition.

*The MSO acquired in the Veneto transaction may not continue to participate in the business following the acquisition.*

The MSO acquired from Veneto is named Rapport Services, LLC (“Rapport”), which is a physician-owned limited liability company (or LLC) requiring an at-risk equity investment from physicians or physician groups that wish to participate in the network. The Rapport physician investors own 99% of Rapport, and Generex (through its wholly-owned subsidiary NuGenerex Distribution Solutions II) owns 1% and serves as the managing director of the LLC. The MSO was built through relationships between physicians and the previous Veneto administration. There is no guarantee that the current network of physician partners will remain with Rapport. There is no guarantee that the physicians will continue to utilize the ancillary healthcare services that Rapport provides the MSO through contractual relationships with pharmacies, labs, or other providers of ancillary services.

*Regulatory actions may affect our ability to operate.*

Our MSO and pharmaceutical distribution businesses operate in fields that are very highly regulated by both the federal government and state pharmacy licensing agencies. Adverse decisions by the DEA or state pharmacy regulators could materially and adversely affect our ability to maintain and grow our distributions business. The MSOs we manage are primarily owned by physicians and serve pharmacy and other healthcare organizations. We believe that our MSO business is structured to comply with laws and regulations governing economic relationships between physicians and other health care providers, such as fraud and abuse laws. If regulators or courts determine our activities did not comply, we may be required to restructure our business in a manner that would reduce or eliminate its profitability.
The MSO model may not be profitable without the right product mix and reimbursements from payors.

The Rapport MSO operates as a limited liability company, and therefore distributes profits to the members based upon their equity interest. Profitability is determined based the revenues generated by reimbursements, the cost of goods sold, and the cost of services. The success of the MSO model is predicated on several factors, including: 1) the ability to obtain competitive and specialty pricing from ancillary providers of pharmaceuticals, medical devices, surgical supplies, and biologics used by the physicians in the MSO for the optimal care of their patients; 2) the reimbursements for pharmaceuticals, medical devices, surgical supplies, and biologics that are established and paid by third-party payors, including insurance companies, pharmacy benefits managers (or PBMs), distributors, and employers; 3) the cost for delivering ancillary services, including personnel, facilities, licenses, insurances, and administrative expenses, among others, and 4) the ability to grow the business with new partners, clients, products and services that provide new and increased revenue streams. We may not obtain pricing for goods and services that provide enough margin to maintain profitability. Reimbursements from third-party payors for pharmaceuticals, medical devices, surgical supplies, and biologics are under cost pressure, and subject to change on a quarterly basis, with the threat of reduced reimbursements an ongoing concern. We may not be able to maintain the flexibility required or have the financing to support the appropriate level of personnel, lease the correct number and type of facilities, secure the requisite licenses, and grow the business as projected due to the variability of business cycles, the uncertainty in cost of goods and services, and the ongoing threat of declining reimbursements.

Based on the opinion of counsel, we believe that the Rapport MSO model is currently legal in 22 states, however, state laws and regulations often change.

To our knowledge, Rapport, a physician-owned limited liability company is operated in full compliance with all state and federal regulations. Although we have obtained third-party legal guidance, there is no guarantee that the legal guidance is correct, nor that the Rapport model is in full compliance with all regulations, nor that regulations will change rendering the model noncompliant.

The regulations pertaining to the physician-owned MSO model may change such that the Rapport model is no longer compliant with state laws, requiring changes to the MSO model.

Changes to federal and state regulations may have significant adverse effect on the business. If the regulations change such that the Rapport MSO model is no longer allowed, we will need to change our business model to maintain compliance. Despite the fact that we are currently planning to institute additional service models under the NuGenerex subsidiary, there is no guarantee that we will be able to maintain a profitable business that is in compliance with laws and regulations.

If the statutes and regulations in our industry change, our business could be adversely affected.

The U.S. healthcare industry has undergone significant changes designed to improve patient safety, improve clinical outcomes, and increase access to medical care. These changes include enactments and repeals of various healthcare related laws and regulation. Our operations and economic viability may be adversely affected by the changes in such regulations, including: (i) federal and state fraud and abuse laws; (ii) federal and state anti-kickback statutes; (iii) federal and state false claims laws; (iv) federal and state self-referral laws; (v) state restrictions on fee splitting; (vi) laws regarding the privacy and confidentiality of patient information; and (vii) other laws and government regulations.

If there are changes in laws, regulations, or administrative or judicial interpretations, we may have to change our business practices, or our existing business practices could be challenged as unlawful, which could have a material adverse effect on our business, financial condition, and results of operations.

We are expanding our product and service offerings to offset risk associated with the cost of goods and regulatory concerns, however, there is no guarantee that the new products and services will be successful in the marketplace.

We launched DMEiq, LLC ("DME-IQ"), a tablet-based software and service business designed to help orthopedic practices manage and operate an in-house program for orthopedic durable medical equipment (or DME). While we are beginning to generate revenues with the first implementation of DME-IQ, the return on investment for us is still to be proven. The sales cycle for contracting with new orthopedic practices to implement the DME-IQ program is long, and requires multiple meetings, financial and practice analysis, and legal/regulatory review. There is no guarantee that we will be able to achieve our sales goals.
We are in the process of acquiring manufacturers and suppliers of orthopedic implants, surgical supplies and tools, and biologics that can be utilized by the MSO network. There is no guarantee that these acquisitions will be completed, or if completed, that the products will be chosen by the MSO physicians in the surgical and medical practices.

Our subsidiary Olaregen is offering our newly launched product for wound management, Excellagen to the MSO network of orthopedic surgeons and podiatrists. There is no guarantee that we will get Excellagen on hospital and insurance formularies for reimbursement. Therefore, there is a risk that the product may not be utilized as expected.

We may encounter difficulties in managing our growth, and the nature of our business and rapid changes in the healthcare industry makes it difficult to reliably predict future growth and operating results.

We may not be able to successfully grow and expand. Successful implementation of our business plan will require management of growth, including potentially rapid and substantial growth, which could result in an increase in the level of responsibility for management personnel and strain on our human and capital resources. To manage growth effectively, we will be required, among other things, to continue to implement and improve our operating and financial systems, procedures and controls and to expand, train and manage our employee base. If we are unable to implement and scale improvements to our existing systems and controls in an efficient and timely manner or if we encounter deficiencies, we will not be able to successfully execute our business plans.

Failure to attract and retain sufficient numbers of qualified personnel could also impede our growth.

If we are unable to manage our growth effectively, it will have a material adverse effect on our business, results of operations and financial condition. The evolving nature of our business and rapid changes in the healthcare industry make it difficult to anticipate the nature and amount of medical reimbursements, third-party private payments, and participation in certain government programs and thus to reliably predict our future growth and operating results. Our growth strategy may incur significant costs, which could adversely affect our financial condition. Our growth by strategic transactions strategy involves significant costs, including financial advisory, legal and accounting fees, and may include additional costs for items such as fairness opinions and severance payments. These costs could put a strain on our cash flows, which in turn could adversely affect our overall financial condition.

We are regulated by federal Anti-Kickback Statutes

The federal Anti-Kickback Statute is a provision of the Social Security Act of 1972 that prohibits as a felony the knowing and willful offer, payment, solicitation or receipt of any form of remuneration in return for, or to induce, (1) the referral of a patient for items or services for which payment may be made in whole or part under Medicare, Medicaid, or other federal healthcare programs, (2) the furnishing or arranging for the furnishing of items or services reimbursable under Medicare, Medicaid, or other federal healthcare programs or (3) the purchase, lease, or order or arranging or recommending the purchasing, leasing or ordering of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The Patient Protection and Affordable Care Act (“ACA”) amended section 1128B of the Social Security Act to make it clear that a person need not have actual knowledge of the statute, or specific intent to violate the statute, as a predicate for a violation. The OIG, which has the authority to impose administrative sanctions for violation of the statute, has adopted as its standard for review a judicial interpretation which concludes that the statute prohibits any arrangement where even one purpose of the remuneration is to induce or reward referrals. A violation of the Anti-Kickback Statute is a felony punishable by imprisonment, criminal fines of up to $25,000, civil fines of up to $50,000 per violation, and three times the amount of the unlawful remuneration. A violation also can result in exclusion from Medicare, Medicaid or other federal healthcare programs. In addition, pursuant to the changes of the Affordable Care Act (“ACA”), a claim that includes items or services resulting from a violation of the Anti-Kickback Statute is a false claim for purposes of the False Claims Act.

We cannot assure that the applicable regulatory authorities will not determine that some of our arrangements with physicians violate the federal Anti-Kickback Statute or other applicable laws. An adverse determination could subject us to different liabilities, including criminal penalties, civil monetary penalties and exclusion from participation in Medicare, Medicaid or other health care programs, any of which could have a material adverse effect on our business, financial condition or results of operations.
We are regulated by federal Stark Laws

The federal Stark Law, 42 U.S.C. 1395nn, also known as the physician self-referral law, generally prohibits a physician from referring Medicare and Medicaid patients to an entity (including hospitals) providing “designated health services,” if the physician or a member of the physician’s immediate family has a “financial relationship” with the entity, unless a specific exception applies. Designated health services include, among other services, inpatient hospital services, outpatient prescription drug services, clinical laboratory services, certain imaging services (e.g., MRI, CT, ultrasound), and other services that our affiliated physicians may order for their patients. The prohibition applies regardless of the reasons for the financial relationship and the referral; and therefore, unlike the federal Anti-Kickback Statute, intent to violate the law is not required. Like the Anti-Kickback Statute, the Stark Law contains statutory and regulatory exceptions intended to protect certain types of transactions and arrangements. Unlike safe harbors under the Anti-Kickback Statute with which compliance is voluntary, an arrangement must comply with every requirement of a Stark Law exception or the arrangement is in violation of the Stark Law.

Because the Stark Law and implementing regulations continue to evolve and are detailed and complex, while we attempt to structure its relationships to meet an exception to the Stark Law, there can be no assurance that the arrangements entered into by us with affiliated physicians and facilities will be found to be in compliance with the Stark Law, as it ultimately may be implemented or interpreted. The penalties for violating the Stark Law can include the denial of payment for services ordered in violation of the statute, mandatory refunds of any sums paid for such services, and civil penalties of up to $15,000 for each violation, double damages, and possible exclusion from future participation in the governmental healthcare programs. A person who engages in a scheme to circumvent the Stark Law’s prohibitions may be fined up to $100,000 for each applicable arrangement or scheme.

Some states have enacted statutes and regulations against self-referral arrangements similar to the federal Stark Law, but which may be applicable to the referral of patients regardless of their payor source and which may apply to different types of services. These state laws may contain statutory and regulatory exceptions that are different from those of the federal law and that may vary from state to state. An adverse determination under these state laws and/or the federal Stark Law could subject us to different liabilities, including criminal penalties, civil monetary penalties and exclusion from participation in Medicare, Medicaid or other health care programs, any of which could have a material adverse effect on our business, financial condition or results of operations.

We must comply with Health Information Privacy and Security Standards

The privacy regulations Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), as amended, contain detailed requirements concerning the use and disclosure of individually identifiable patient health information (“PHI”) by entities like our MSOs and affiliated IPAs and medical groups. HIPAA covered entities must implement certain administrative, physical, and technical security standards to protect the integrity, confidentiality and availability of certain electronic health information received, maintained, or transmitted. HIPAA also implemented standard transaction code sets and standard identifiers that covered entities must use when submitting or receiving certain electronic healthcare transactions, including billing and claim collection activities. Violations of the HIPAA privacy and security rules may result in civil and criminal penalties, including a tiered system of civil money penalties that range from $100 to $50,000 per violation, with a cap of $1.5 million per year for identical violations. A HIPAA covered entity must also promptly notify affected individuals where a breach affects more than 500 individuals and report breaches affecting fewer than 500 individuals annually. State attorneys general may bring civil actions on behalf of state residents for violations of the HIPAA privacy and security rules, obtain damages on behalf of state residents, and enjoin further violations.

Many states also have laws that protect the privacy and security of confidential, personal information, which may be similar to or even more stringent than HIPAA. Some of these state laws may impose fines and penalties on violators and may afford private rights of action to individuals who believe their personal information has been misused. We expect increased federal and state privacy and security enforcement efforts.
A cyber security incident could cause a violation of HIPAA, breach of customer and patient privacy, or other negative impacts.

We rely extensively on our information technology (or IT) systems to manage scheduling and financial data, communicate with customers and their patients, vendors, and other third parties, and summarize and analyze operating results. In addition, we have made significant investments in technology, including the engagement of a third-party IT provider. A cyber-attack that bypasses our IT security systems could cause an IT security breach, a loss of protected health information, or other data subject to privacy laws, a loss of proprietary business information, or a material disruption of our IT business systems. This in turn could have a material adverse impact on our business and result of operations. In addition, our future results of operations, as well as our reputation, could be adversely impacted by theft, destruction, loss, or misappropriation of public health information, other confidential data, or proprietary business information.

Computer malware, viruses, and hacking and phishing attacks by third parties have become more prevalent in our industry, have occurred on our systems in the past, and may occur on our systems in the future. Because techniques used to obtain unauthorized access to or sabotage systems change frequently and generally are not recognized until successfully launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. As cyber-security threats develop and grow, it may be necessary to make significant further investments to protect data and infrastructure. If an actual or perceived breach of our security occurs, (i) we could suffer severe reputational damage adversely affecting customer or investor confidence, (ii) the market perception of the effectiveness of our security measures could be harmed, (iii) we could lose potential sales and existing customers, our ability to deliver our services or operate our business may be impaired, (iv) we may be subject to litigation or regulatory investigations or orders, and (v) we may incur significant liabilities. Our insurance coverage may not be adequate to cover the potentially significant losses that may result from security breaches. We are currently reviewing our needs for cybersecurity policy as we fund and plan to commercialize our products and relaunch our MSO.

We must comply with Environmental and Occupational Safety and Health Administration Regulations

We are subject to federal, state and local regulations governing the storage, use and disposal of waste materials and products. Although we believe that our safety procedures for storing, handling and disposing of these materials and products comply with the standards prescribed by law and regulation, we cannot eliminate the risk of accidental contamination or injury from those hazardous materials. In the event of an accident, we could be held liable for any damages that result and any liability could exceed the limits or fall outside the coverage of our insurance coverage, which we may not be able to maintain on acceptable terms, or at all. We could incur significant costs and attention of our management could be diverted to comply with current or future environmental laws and regulations. Federal regulations promulgated by the Occupational Safety and Health Administration impose additional requirements on us, including those protecting employees from exposure to elements such as blood-borne pathogens. We cannot predict the frequency of compliance, monitoring, or enforcement actions to which we may be subject as those regulations are being implemented, which could adversely affect our operations.

We must comply with a range of other Federal and State Healthcare Laws.

We are also subject to other federal and state healthcare laws that could have a material adverse effect on our business, financial condition or results of operations. The Health Care Fraud Statute prohibits any person from knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, which can be either a government or private payor plan. Violation of this statute, even in the absence of actual knowledge of or specific intent to violate the statute, may be charged as a felony offense and may result in fines, imprisonment, or both. The Health Care False Statement Statute prohibits, in any matter involving a federal health care program, anyone from knowingly and willfully falsifying, concealing or covering up, by any trick, scheme or device, a material fact, or making any materially false, fictitious or fraudulent statement or representation, or making or using any materially false writing or document knowing that it contains a materially false or fraudulent statement. A violation of this statute may be charged as a felony offense and may result in fines, imprisonment or both. Under the Civil Monetary Penalties Law of the Social Security Act, a person (including an organization) is prohibited from knowingly presenting or causing to be presented to any United States officer, employee, agent, or department, or any state agency, a claim for payment for medical or other items or services where the person knows or should know (a) the items or services were not provided as described in the coding of the claim, (b) the claim is a false or fraudulent claim, (c) the claim is for a service furnished by an unlicensed physician, (d) the claim is for medical or other items or service furnished by a person or an entity that is in a period of exclusion from the program, or (e) the items or services are medically unnecessary items or services. Violations of the law may result in penalties of up to $10,000 per claim, treble damages, and exclusion from federal healthcare programs.
In addition, the office of inspector general (“OIG”) may impose civil monetary penalties against any physician who knowingly accepts payment from a hospital (as well as against the hospital making the payment) as an inducement to reduce or limit medically necessary services provided to Medicare or Medicaid program beneficiaries. Further, except as permitted under the Civil Monetary Penalties Law, a person who offers or transfers to a Medicare or Medicaid beneficiary any remuneration that the person knows or should know is likely to influence the beneficiary’s selection of a particular provider of Medicare or Medicaid payable items or services may be liable for civil money penalties of up to $10,000 for each wrongful act.

In addition to the state laws previously described, we may also be subject to other state fraud and abuse statutes and regulations if we expand our operations nationally. Many states have adopted a form of anti-kickback law, self-referral prohibition, and false claims and insurance fraud prohibition. The scope of these laws and the interpretations of them vary from state to state and are enforced by state courts and regulatory authorities, each with broad discretion. Generally, state laws reach to all healthcare services and not just those covered under a governmental healthcare program. A determination of liability under any of these laws could result in fines and penalties and restrictions on our ability to operate in these states. We cannot assure that our arrangements or business practices will not be subject to government scrutiny or be found to violate applicable fraud and abuse laws.

Changes in healthcare laws could create an uncertain environment and materially impact us.

We cannot predict the effect that the ACA (also known as Obamacare) and its implementation, amendment, or repeal and replacement, may have on our business, results of operations or financial condition. Any changes in healthcare laws or regulations that reduce, curtail or eliminate payments, government-subsidized programs, government-sponsored programs, and/or the expansion of Medicare or Medicaid, among other actions, could have a material adverse effect on our business, results of operations and financial condition. For example, the ACA dramatically changed how healthcare services are covered, delivered, and reimbursed. The ACA requires insurers to accept all applicants, regardless of pre-existing conditions, cover an extensive list of conditions and treatments, and charge the same rates, regardless of pre-existing condition or gender.

The ACA and the Health Care and Education Reconciliation Act of 2010 (collectively, the “Health Care Reform Acts”) also mandated changes specific to home health and hospice benefits under Medicare. In 2012, the U.S. Supreme Court upheld the constitutionality of the ACA, including the “individual mandate” provisions of the ACA that generally require all individuals to obtain healthcare insurance or pay a penalty. However, the U.S. Supreme Court also held that the provision of the ACA that authorized the Secretary of the U.S. Department of Health and Human Services ("HHS") to penalize states that choose not to participate in the expansion of the Medicaid program by removing all of its existing Medicaid funding was unconstitutional. In response to the ruling, a number of state governors opposed its state’s participation in the expanded Medicaid program, which resulted in the ACA not providing coverage to some low-income persons in those states. In addition, several bills have been, and are continuing to be, introduced in U.S. Congress to amend all or significant provisions of the ACA, or repeal and replace the ACA with another law. In December 2017, the individual mandate was repealed via the Tax Cuts and Jobs Act of 2017. Afterwards, legal and political challenges as to the constitutionality of the remaining provisions of the ACA resumed.

Our operations are subject to the nation’s healthcare laws, as amended, repealed, or replaced from time to time.

The net effect of the ACA on our business is subject to numerous variables, including the law’s complexity, lack of complete implementing regulations and interpretive guidance, gradual and potentially delayed implementation or possible amendment, as well as the uncertainty as to the extent to which states will choose to participate in the expanded Medicaid program. The continued implementation of provisions of the ACA, the adoption of new regulations thereunder and ongoing challenges thereto, also added uncertainty about the current state of U.S. healthcare laws and could negatively impact our business, results of operations and financial condition. Healthcare providers could be subject to federal and state investigations and payor audits.
Due to our and our affiliates’ participation in government and private healthcare programs, we are from time to time involved in inquiries, reviews, audits, and investigations by governmental agencies and private payors of our business practices, including assessments of our compliance with coding, billing and documentation requirements. Federal and state government agencies have active civil and criminal enforcement efforts against healthcare companies, and their executives and managers. The Deficit Reduction Act, which provides a financial incentive to states to enact their own false claims acts, and similar laws encourage investigations against healthcare companies by different agencies. These investigations could also be initiated by private whistleblowers.

Responding to audit and investigative activities are costly and disruptive to our business operations, even when the allegations are without merit. If we are subject to an audit or investigation, a finding could be made that we or our affiliates erroneously billed or were incorrectly reimbursed, and we may be required to repay such agencies or payors, may be subjected to pre-payment reviews, which can be time-consuming and result in non-payment or delayed payments for the services we or our affiliates provide, and may be subject to financial sanctions or required to modify our operations.

**Product pricing is subject to regulatory control.**

Routinely, the pricing and profitability of the products we sell are subject to control by third-party payors. The continuing efforts of governmental and other third-party payors to contain or reduce the cost of healthcare through various means may adversely affect our ability to successfully commercialize our products. We anticipate that there will continue to be federal and state proposals to implement similar governmental control, although it is unclear which proposals will ultimately become law, if any. Direct or indirect changes in prices, including any mandated pricing, could impact our revenues, profitability, and financial performance.

**Our revenues will depend on our customers’ continued receipt of adequate reimbursement from private insurers and government sponsored healthcare programs.**

Political, economic, and regulatory influences continue to change the healthcare industry in the United States. The ability of hospitals to pay fees for our products partially depends on the extent to which reimbursement for the costs of such materials and related treatments will continue to be available from private health coverage insurers and other similar organizations. We may have difficulty gaining market acceptance for the products we sell if third-party payors do not provide adequate coverage and reimbursement to hospitals.

Major third-party payors of hospitals, such as private healthcare insurers, periodically revise their payment methodologies based, in part, upon changes in government sponsored healthcare programs. We cannot predict these periodic revisions with certainty, and such revisions may result in stricter standards for reimbursement of hospital charges for certain specified products, potentially adversely impacting our business, results of operations, and financial conditions.

**The FDA regulates the manufacturers and suppliers of the products that we sell, market, manufacture, and distribute, and regulatory compliance is costly and could contribute to delays in the availability of our products.**

Under FDA regulations, we are subject to the same FDA regulation as the manufacturers and suppliers to whom we distribute. These regulations govern (i) the manufacturing and processing of cellular and tissue products; (ii) the introduction of new medical devices; (iii) the observance of certain standards with respect to the design, manufacturing, testing, labeling, promotion, and sales of the devices; (iv) the maintenance of certain records; (v) the ability to track devices; (vi) the reporting of potential product defects; (vii) the importing and exporting of devices; and (viii) various other matters. Furthermore, manufacturers that create the products we market face an increasing amount of scrutiny and compliance costs as more states implement regulations governing medical devices and Biologics. In addition, we are subject to ongoing compliance concerning our 510(k) Approvals, as well as potential on-site inspections by the FDA. Being found in violation and failing to correct an FDA compliance issue could potentially result in product recall, product seizure, or the de-listing of our products with 510(k) Approval. These types of FDA regulations could affect many of the products we market, impacting our revenues and profitability, results of operations, and working capital.
Future regulatory action remains uncertain.

We operate in a highly-regulated and evolving environment with rigorous regulatory enforcement. Any legal or regulatory action could be time-consuming and costly. If we or the manufacturers or distributors that supply our products fail to comply with all applicable laws, standards, and regulations, action by the FDA or other regulatory agencies could result in significant restrictions, including restrictions on the marketing or use of the products we sell or the withdrawal of the products we sell from the market. Any such restrictions or withdrawals could materially affect our reputation, business and operations.

U.S. federal and state governmental regulation could restrict our ability to sell our products.

Our business is subject to highly complex and evolving regulatory and licensing requirements that are subject to uncertainty, rapid change, differing interpretations, and rigorous regulatory enforcement. Failure to comply with such regulatory requirements may result in civil or criminal penalties, including the loss of licenses or the exclusion from future participation in government healthcare programs. There can be no assurance that federal or state regulatory or enforcement authorities will not investigate or challenge our current or future activities under these laws. Any state or federal regulatory or enforcement review of us, regardless of the outcome, would be costly and time consuming. Additionally, we cannot predict the impact of any changes in these laws, whether these changes are retroactive or will affect our Company on a going-forward basis only. Any investigation or challenge could have a material adverse effect on our reputation, business, financial condition, and results of operations.

The FDA and similar state authorities require us to list and register certain products, because we are a distributor, marketer, specification developer and repackager/relabeler and manufacturer for FDA-regulated products.

If we are successful in executing our business plan, we will be a distributor, marketer, and specification developer and repackager/relabeler of FDA-regulated products, and as such we may be subject to independent requirements to register and list certain products. We may be required to obtain state licensure or certifications and may be subject to inspections, in addition to complying with derivative requirements applicable to the manufacturers of the products we market. Failure to comply with such applicable requirements could result in a wide variety of enforcement actions, ranging from warning letters to more severe sanctions, such as significant costly fines and civil penalties, operating restrictions, injunctions, and criminal prosecutions, all of which could adversely impact our business.

Our product candidates will remain subject to ongoing regulatory review even after they receive marketing approval, and if we fail to comply with continuing regulations, we could lose these approvals and the sale of any of our approved commercial products could be suspended.

Even as we receive regulatory approval to market a particular product candidate, the manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion, and record keeping related to the product will remain subject to extensive regulatory requirements. If we fail to comply with the regulatory requirements of the FDA and other applicable domestic and foreign regulatory authorities or discover any previously unknown problems with any approved product, manufacturer, or manufacturing process, we could be subject to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers, or manufacturing processes;
- warning letters;
- civil or criminal penalties;
- fines;
- injunctions;
- product seizures or detentions;
- pressure to initiate voluntary product recalls;
- suspension or withdrawal of regulatory approvals; and
- refusal to approve pending applications for marketing approval of new products or supplements to approved applications.
If physicians and patients do not accept our current and future products or if the market for indications for which any product candidate is approved is smaller than expected, we may be unable to generate significant revenue, if any.

Even when any of our product candidates obtain regulatory approval, they may not gain market acceptance among physicians, patients, and third-party payers. Physicians may decide not to recommend our treatments for a variety of reasons including:

- timing of market introduction of competitive products;
- demonstration of clinical safety and efficacy compared to other products;
- cost-effectiveness;
- limited or no coverage by third-party payers;
- convenience and ease of administration;
- prevalence and severity of adverse side effects;
- restrictions in the label of the drug;
- other potential advantages of alternative treatment methods; and
- ineffective marketing and distribution support of its products.

If any of our product candidates are approved, but fail to achieve market acceptance or such market is smaller than anticipated, we may not be able to generate significant revenue and our business would suffer.

Intellectual property litigation and infringement claims could cause us to incur significant expenses or prevent us from selling certain of our products.

The medical device and pharmaceutical industries are characterized by extensive intellectual property litigation and, from time to time, we may become the subject of claims of infringement or misappropriation. Regardless of outcome, such claims are expensive to defend and divert management and operating personnel from other business issues. A successful claim or claims of patent or other intellectual property infringement against us could result in payment of significant monetary damages and/or royalty payments or negatively impact our ability to sell current or future products in the affected category.

We depend extensively on our patents and proprietary technology and the patents and proprietary technology we license from others, and we must protect those assets in order to preserve our business.

Although we expect to seek patent protection for any compounds, devices, biologics, systems, and processes we discover and/or for any specific use we discover for new or previously known compounds, devices, biologics, systems, or processes, any or all of which may not be subject to effective patent protection. In addition, our issued patents may be declared invalid or our competitors may find ways to avoid the claims in the patents.
Our success will depend, in part, on our ability to obtain patents, protect our trade secrets and operate without infringing on the proprietary rights of others. We are the exclusive licensee, sole assignee or co-assignee of numerous granted United States patents, pending United States patent applications and international patents. The patent position of pharmaceutical and biotechnology firms like us are generally highly uncertain and involves complex legal and factual questions, resulting in both an apparent inconsistency regarding the breadth of claims allowed in United States patents and general uncertainty as to their legal interpretation and enforceability. Accordingly, patent applications assigned or exclusively licensed to us may not result in patents being issued, any issued patents assigned or exclusively licensed to us may not provide us with competitive protection or may be challenged by others, and the current or future granted patents of others may have an adverse effect on our ability to do business and achieve profitability.

Moreover, because some of the basic research relating to one or more of our patent applications and/or patents were performed at various universities and/or funded by grants, one or more universities, employees of such universities and/or grantors could assert that they have certain rights in such research and any resulting products. Further, others may independently develop similar products, may duplicate our products, or may design around our patent rights. In addition, as a result of the assertion of rights by a third-party or otherwise, we may be required to obtain licenses to patents or other proprietary rights of others in or outside of the United States. Any licenses required under any such patents or proprietary rights may not be made available on terms acceptable to us, if at all. If we do not obtain such licenses, we could encounter delays in product market introductions during our attempts to design around such patents or could find that the development, manufacture or sale of products requiring such licenses is foreclosed. In addition, we could incur substantial costs in defending suits brought against us or in connection with patents to which we hold licenses or in bringing suit to protect our own patents against infringement.

We depend on license agreements with third-parties for certain intellectual property rights relating to our products and product candidates. In general, our license agreements require us to make payments and satisfy performance obligations in order to keep these agreements in effect and retain our rights under them. These payment obligations can include upfront fees, maintenance fees, milestones, royalties, patent prosecution expenses, and other fees. These performance obligations typically include diligence obligations. If we fail to pay, be diligent or otherwise perform as required under our license agreements, we could lose the rights under the patents and other intellectual property rights covered by these agreements. If disputes arise under any of our in-licenses, we could lose our rights under these agreements. Any such dispute may not be resolvable on favorable terms, or at all. Whether or not any disputes of this kind are favorably resolved, our management’s time and attention and our other resources could be consumed by the need to attend to these disputes and our business could be harmed by the emergence of such a dispute.

If we lose our rights under these agreements, we might not be able to develop any related product candidates further, or following regulatory approval, if any, we might be prohibited from marketing or commercializing these product candidates. In particular, patents previously licensed to us might, after termination of an agreement, be used to stop us from conducting these activities.

Due to legal and factual uncertainties regarding the scope and protection afforded by patents and other proprietary rights, we may not have meaningful protection from competition.

Our long-term success will substantially depend upon our ability to protect our proprietary technologies from infringement, misappropriation, discovery and duplication, and avoid infringing the proprietary rights of others. Our patent rights and the patent rights of biotechnology and pharmaceutical companies in general, are highly uncertain and include complex legal and factual issues. Because of this, our pending patent applications may not be granted. These uncertainties also mean that any patents that we own or will obtain in the future could be subject to challenge, and even if not challenged, may not provide us with meaningful protection from competition. Due to our financial uncertainties, we may not possess the financial resources necessary to enforce our patents. Patents already issued to us or our pending applications may become subject to dispute, and any dispute could be resolved against us.

Because a substantial number of patents have been issued in the field of alternative drug delivery and because patent positions can be highly uncertain and frequently involve complex legal and factual questions, the breadth of claims obtained in any application or the enforceability of our patents cannot be predicted. Consequently, we do not know whether any of our pending or future patent applications will result in the issuance of patents or, to the extent patents have been issued or will be issued, whether these patents will be subject to further proceedings limiting their scope, will provide significant proprietary protection or competitive advantage, or will be circumvented or invalidated. Several of our currently issued patents have expired or will expire in the next twelve months.
Also, because of these legal and factual uncertainties, and because pending patent applications are held in secrecy for varying periods in the United States and other countries, even after reasonable investigation, we may not know with certainty whether any products that we (or a licensee) may develop will infringe upon any patent or other intellectual property right of a third party. For example, we are aware of certain patents owned by third parties that such parties could attempt to use in the future in efforts to affect our freedom to practice some of the patents that we own or have applied for. Based upon the science and scope of these third-party patents, we believe that the patents that we own or have applied for do not infringe any such third-party patents; however, we cannot know for certain whether we could successfully defend our position, if challenged. We may incur substantial costs if we are required to defend our intellectual property in patent suits brought by third parties. These legal actions could seek damages and seek to enjoin testing, manufacturing and marketing of the accused product or process. In addition to potential liability for significant damages, we could be required to obtain a license to continue to manufacture or market the accused product or process.

We may not be able to compete with treatments now being marketed and developed, or which may be developed and marketed in the future by other companies.

Our products will compete with existing and new therapies and treatments. We are aware of a number of companies currently seeking to develop alternative means of delivering insulin, as well as new drugs intended to replace insulin therapy at least in part. We are also aware of a number of companies currently seeking to develop alternative means of enhancing and suppressing peptides. In the longer term, we also face competition from companies that seek to develop cures for diabetes and other malignant, infectious, autoimmune and allergic diseases through techniques for correcting the genetic deficiencies that underlie some of these diseases.

Numerous pharmaceutical, biotechnology and drug delivery companies, hospitals, research organizations, individual scientists, and nonprofit organizations are engaged in the development of alternatives to our technologies. Some of these companies have greater research and development capabilities, experience, manufacturing, marketing, financial, and managerial resources than we do. Collaborations or mergers between large pharmaceutical or biotechnology companies with competing drug delivery technologies could enhance our competitors’ financial, marketing, and other resources. Developments by other drug delivery companies could make our products or technologies uncompetitive or obsolete. Accordingly, our competitors may succeed in developing competing technologies, obtaining FDA approval for products or gaining market acceptance more rapidly than we can.

Some of our most significant competitors, Pfizer, Eli Lilly, and Novo Nordisk, have discontinued development and/or sale of their inhalable forms of insulin. Unlike inhaled insulin formulations, Generex Oral-lyn™ is a buccally absorbed formulation with no residual pulmonary deposition.

Our industry is highly competitive, and our product candidates may become obsolete.

The healthcare industry is highly competitive and fragmented. We compete with other health care management companies for customers across all of our services, including MSOs and healthcare providers, such as local, regional, and national networks of physicians, medical groups and hospitals, many of which are substantially larger than us and have significantly greater financial and other resources, including personnel, than what we have.

We are engaged in a rapidly evolving field. Competition from other pharmaceutical companies, biotechnology companies, and research and academic institutions is intense and likely to increase. Many of those companies and institutions have substantially greater financial, technical, and human resources than we do. Those companies and institutions also have substantially greater experience in developing products, conducting clinical trials, obtaining regulatory approval and in manufacturing and marketing pharmaceutical products. Our competitors may succeed in obtaining regulatory approval for their products more rapidly than we do. Competitors have developed or are in the process of developing technologies that are, or in the future may be, the basis for competitive products. We are aware of potential competitors developing products similar to our sarcoma vaccine, ovarian cancer vaccine and pancreatic cancer antibodies product candidates. Our competitors may succeed in developing products that are more effective and/or cost competitive than those we are developing, or that would render our product candidates less competitive or even obsolete. In addition, one or more of our competitors may achieve product commercialization or patent protection earlier than we do, which could materially adversely affect our business.
Due in part to our limited financial resources, we may fail to select or capitalize on the most scientifically, clinically or commercially promising or profitable indications or therapeutic areas for our product candidates or those that are in-licensed, and/or we may be unable to pursue the clinical trials that we would like to pursue.

We have limited technical, managerial, and financial resources to determine the indications on which we should focus the development efforts related to our product candidates. Due to our limited available financial resources, we may have curtailed clinical development programs and activities that might otherwise have led to more rapid progress of our product candidates through the regulatory and development processes.

We may make incorrect determinations with regard to the indications and clinical trials on which to focus the available resources that we do have. Furthermore, we cannot assure you that we will be able to retain adequate staffing levels to run our operations and/or to accomplish all of the objectives that we otherwise would seek to accomplish. Our decisions to allocate our research, management, and financial resources toward particular indications or therapeutic areas for our product candidates may not lead to the development of viable commercial products and may divert resources from better opportunities. Similarly, our decisions to delay or terminate drug development programs may also cause us to miss valuable opportunities.

If the third parties on which we rely for the conduct of our clinical trials and results do not perform our clinical trial activities in accordance with good clinical practices and related regulatory requirements, we may be unable to obtain regulatory approval for or commercialize our product candidates.

We use independent clinical investigators and other third-party service providers to conduct and/or oversee the clinical trials of our product candidates, and expect to continue to do so for the foreseeable future. We rely heavily on these parties for successful execution of our clinical trials. Nonetheless, we are responsible for confirming that each of our clinical trials is conducted in accordance with the FDA’s requirements and our general investigational plan and protocol.

The FDA requires us and our clinical investigators to comply with regulations and standards, commonly referred to as good clinical practices, for conducting, recording, and reporting the results of clinical trials to assure that data and reported results are credible and accurate, and that the trial participants are adequately protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. Third parties may not complete activities on schedule or may not conduct our clinical trials in accordance with regulatory requirements or the respective trial plans and protocols. The failure of these third parties to carry out their obligations could delay or prevent the development, approval, and commercialization of our product candidates or result in enforcement action against us.

Risks Related to Manufacturing & Distribution

We have limited manufacturing capacity and have relied on, and expect to continue to rely on, third-party contract manufacturers to produce our products and clinical development candidates.

We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our products and candidates, and we currently lack the resources and the capabilities to build our own manufacturing facilities. As a result, we currently rely, and expect to rely for the foreseeable future, on third-party contract manufacturers to supply our products and clinical trial supplies. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured our product candidates or products ourselves, including:

- reliance on third-parties for manufacturing process development, regulatory compliance and quality assurance;
- limitations on supply availability resulting from capacity and scheduling constraints of third-parties;
- the possible breach of manufacturing agreements by third-parties because of factors beyond our control; and
- the possible termination or non-renewal of the manufacturing agreements by the third-party, at a time that is costly or inconvenient to us.
If we do not maintain our key manufacturing relationships, we may fail to find replacement manufacturers or develop our own manufacturing capabilities, which could delay or impair our ability to obtain regulatory approval for our products and substantially increases our costs or deplete profit margins, if any. If we do find replacement manufacturers, we may not be able to enter into agreements with them on terms and conditions favorable to us, and there could be a substantial delay before new facilities could be qualified and registered with the FDA and other foreign regulatory authorities.

The FDA and other foreign regulatory authorities require manufacturers to register manufacturing facilities. The FDA and corresponding foreign regulators also inspect these facilities to confirm compliance with current FDA Good Manufacturing Procedures (“cGMP”). Contract manufacturers may face manufacturing or quality control problems, leading to drug substance production and shipment delays or a situation where the contractor may not be able to maintain compliance with the applicable cGMP requirements. Any failure to comply with cGMP requirements or other FDA, EMA, and comparable foreign regulatory requirements could adversely affect our clinical research activities and our ability to develop our product candidates and market our products following approval.

Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability to develop our product candidates and commercialize any products that receive regulatory approval on a timely basis.

**Interruption of manufacturing operations could adversely affect our business.**

Our suppliers have manufacturing facilities for certain product lines that may be concentrated in one (1) or more plants. Damage to these facilities or issues in our manufacturing arising from a failure to follow specific internal protocols and procedures, compliance concerns relating to quality systems regulations, equipment breakdown or malfunction, among other factors, could adversely affect the availability of our products. In the event of an interruption in manufacturing of certain products, we may be unable to quickly shift to alternate means of production to meet customer demand. In the event of a significant interruption, we may experience lengthy delays in resuming production of affected products due to the need for regulatory approvals. We may experience loss of market share, additional expense, or harm to our reputation.

Additionally, we contract with a limited number of suppliers for the raw materials that we use to produce certain products. While we have not experienced a shortage of raw materials in the past and believe that it is unlikely that there will be one in the future, if there were a shortage of raw materials, it could either increase the cost of production or prevent us from being able to produce some of our products, which could adversely affect future results of our operations and financial condition.

**We may be adversely affected by product liability claims, unfavorable court decisions or legal settlements.**

We are exposed to potential product liability risks inherent in the design, manufacturing, and marketing of pharmaceuticals and medical devices, many of which are administered to or implanted in the human body for long periods of time or indefinitely. These matters are subject to many uncertainties and outcomes are not predictable. In addition, we may incur significant legal expenses regardless of whether we are found to be liable.

While we maintain product liability insurance, there can be no assurance that such coverage is sufficient to cover all product liabilities that we may incur. We are not currently subject to any product liability proceedings, and we have no reserves for product liability disbursements. However, we may incur material liabilities relating to product liability claims in the future, including product liability claims arising out of the usage and delivery of our products. Should we incur product-related liabilities exceeding our insurance coverage, we would be required to use available cash or raise additional cash to cover such liabilities.
If government programs and insurance companies do not agree to pay for or reimburse patients for our pharmaceutical products, our success will be impacted.

Sales of our oral insulin formulation in Ecuador, Lebanon, Algeria and India and our other potential pharmaceutical products in other markets will depend in part on the availability of reimbursement by third-party payers, such as government health administration authorities, private health insurers and other organizations. Third-party payers often challenge the price and cost-effectiveness of medical products and services. Governmental approval of health care products does not guarantee that these third-party payers will pay for the products. Even if third-party payers do accept our product, the amounts they pay may not be adequate to enable us to realize a profit. Legislation and regulations affecting the pricing of pharmaceuticals may change before our products are approved for marketing, and any such changes could further limit reimbursement.

Because we may not be able to obtain or maintain the necessary regulatory approvals for some of our products, we may not generate revenues in the amounts we expect, or in the amounts necessary to continue our business. Our existing products as well as our manufacturing facility must meet quality standards and are subject to inspection by a number of domestic regulatory and other governmental and non-governmental agencies.

All of our proposed and existing products are subject to regulation in the U.S. by the FDA, the U.S. Department of Agriculture (“USDA”) and/or other domestic and international governmental, public health agencies, regulatory bodies or non-governmental organizations. In particular, we are subject to strict governmental controls on the development, manufacturing, labeling, distribution, and marketing of our products. The process of obtaining required approvals or clearances varies according to the nature of, and uses for, a specific product. These processes can involve lengthy and detailed laboratory testing, human or animal clinical trials, sampling activities, and other costly, time-consuming procedures. The submission of an application to a regulatory authority does not guarantee that the authority will grant an approval or clearance for that product. Each authority may impose its own requirements and can delay or refuse to grant approval or clearance, even though a product has been approved in another country.

The time required to obtain approval or clearance varies depending on the nature of the application and may result in the passage of a significant period of time from the date of submission of the application. Delays in the approval or clearance processes increase the risk that we will not succeed in introducing or selling the subject products, and we may determine to devote our resources to different products.

Changes in government regulations could increase our costs and could require us to undergo additional trials or procedures, or could make it impractical or impossible for us to market our products for certain uses, in certain markets, or at all.

Changes in government regulations may adversely affect our financial condition and results of operations because we may have to incur additional expenses if we are required to change or implement new testing, manufacturing and control procedures. If we are required to devote resources to develop such new procedures, we may not have sufficient resources to devote to research and development, marketing, or other activities that are critical to our business.

We can manufacture and sell our products only if we comply with regulations and quality standards established by government agencies such as the FDA and the USDA, as well as non-governmental organizations such as the International Organization for Standardization (“ISO”) and WHO. We have implemented a quality control system that is intended to comply with applicable regulations. Although FDA approval is not required for the export of our products, there are export regulations promulgated by the FDA that specifically relate to the export of our products that require compliance with FDA quality system regulation and that also require meeting certain documentary requirements regarding the approval of the product in export markets. Although we believe that we meet the regulatory standards required for the export of our products, these regulations could change in a manner that could adversely impact our ability to export our products.

We may not have sufficient resources to effectively introduce and market our products, which could materially harm our operating results.

Introducing and achieving market acceptance for our products will require substantial marketing efforts and will require us and/or our contract partners, sales agents, and/or distributors to make significant expenditures of time and money. In some instances, we will be significantly or totally reliant on the marketing efforts and expenditures of our contract partners, sales agents, and/or distributors. If they do not have or commit the expertise and resources to effectively market the products that we manufacture, our operating results will be materially harmed.
In addition to the market success of our products, the success of our business depends on our ability to raise additional capital through the sale of debt or equity or through borrowing, and we may not be able to raise capital or borrow funds on attractive terms and/or in amounts necessary to continue our business, or at all.

General Risks

General economic conditions may adversely affect demand for our products and services.

Poor or deteriorating economic conditions in the U.S. could adversely affect the demand for healthcare services and consequently, the demand for our products and services. Poor economic conditions also could lead our suppliers to offer less favorable terms of purchase, which would negatively affect our cash flows and profitability. These and other possible consequences of financial and economic decline could have material adverse effect on our business, results of operations, and financial condition.

We operate our business in regions subject to natural disasters and other catastrophic events, and any disruption to our business resulting from natural disasters would adversely affect our revenue and results of operations.

We operate our business in regions subject to severe weather and natural disasters, including hurricanes, floods, fires, earthquakes, and other catastrophic events. Any natural disaster could adversely affect our ability to conduct business and provide products and services to our customers, and the insurance we maintain may not be adequate to cover our losses resulting from any business interruption resulting from a natural disaster or other catastrophic event.

Although we have an ethics and anti-corruption policy in place, and have no knowledge or reason to know of any practices by our employees, agents, or distributors that could be construed as in violation of such policies, our business includes sales of products to countries where there is or may be widespread corruption.

We have a policy in place prohibiting employees, distributors and agents from engaging in corrupt business practices, including activities prohibited by the United States Foreign Corrupt Practices Act. Nevertheless, because we work through independent sales agents and distributors outside the United States, we do not have control over the day-to-day activities of such independent agents and distributors. In addition, in the donor-funded markets in Africa where we may sell our products, there is significant oversight from the President’s Emergency Plan for AIDS Relief, or PEPFAR, the Global Fund, and advisory committees comprised of technical experts concerning the development and establishment of national testing protocols. This is a process that includes an overall assessment of a product which includes extensive product performance evaluations including five active collaborations and manufacturer’s quality systems, as well as price and delivery.

We depend heavily on our executive officers, directors, and principal consultants and the loss of their services would materially harm our business.

We believe that our success depends, and will likely continue to depend, upon our ability to retain the services of our current executive officers, directors, principal consultants and others. In addition, we have established relationships with universities, hospitals and research institutions, which have historically provided, and continue to provide, us with access to research laboratories, clinical trials, facilities and patients. The loss of the services of any of these individuals or institutions would have a material adverse effect on our business.

Risks Related to Our Common Stock

Our common stock is “penny stock”, which places restrictions on broker-dealers recommending the stock for purchase.

Our common stock is defined as “penny stock” under the Exchange Act, and the rules promulgated thereunder. The SEC has adopted regulations that define “penny stock” to include common stock that has a market price of less than $5.00 per share, subject to certain exceptions. These rules include the following requirements:
• broker-dealers must deliver, prior to the transaction, a disclosure schedule prepared by the SEC relating to the penny stock market;

• broker-dealers must disclose the commissions payable to the broker-dealer and its registered representative;

• broker-dealers must disclose current quotations for the securities;

• if a broker-dealer is the sole market-maker, the broker-dealer must disclose this fact and the broker-dealer’s presumed control over the market; and

• a broker-dealer must furnish its customers with monthly statements disclosing recent price information for all penny stocks held in the customer’s account and information on the limited market in penny stocks.

Additional sales practice requirements are imposed on broker-dealers who sell penny stocks to persons other than established customers and accredited investors. For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and must have received the purchaser’s written consent to the transaction prior to sale. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for our common stock. As a result, fewer broker-dealers may be willing to make a market in our stock, which could make it more difficult for investors to dispose of our common stock and cause a decline in the market value of our stock.

There is a limited trading market for our common stock.

Our common stock is not listed on any national securities exchange. Accordingly, investors may find it more difficult to buy and sell our shares than if our common stock was traded on an exchange. Although our common stock is quoted on the OTCQB, it is an unorganized, inter-dealer, over-the-counter market which provides significantly less liquidity than the Nasdaq Capital Market or other national securities exchange. These factors may have an adverse impact on the trading and price of our common stock.

Provisions of our Restated Certificate of Incorporation could delay or prevent the acquisition or sale of our business.

Our Restated Certificate of Incorporation permits our Board of Directors to designate new series of preferred stock and issue those shares without any vote or action by our stockholders. Such newly authorized and issued shares of preferred stock could contain terms that grant special voting rights to the holders of such shares that make it more difficult to obtain stockholder approval for an acquisition of our business or increase the cost of any such acquisition.

We do not intend to pay dividends on our common stock for the foreseeable future.

We have paid no cash dividends on our common stock to date and we do not anticipate paying any dividends to holders of our common stock in the foreseeable future. While our future dividend policy will be based on the operating results and capital needs of the business, we currently anticipate that we will retain any earnings to finance our future expansion and for the implementation of our business plan. Investors should take note of the fact that a lack of a dividend can further affect the market value of our common stock, and could significantly affect the value of any investment in the Company.

Our issuance of common stock upon exercise of warrants or options or conversion of convertible notes may depress the price of our common stock.

As of October 31, 2019, we have 62,290,940 shares of common stock issued and outstanding, outstanding warrants to purchase 15,405,395 shares of common stock, outstanding options to purchase 8,861,675 shares of common stock, and outstanding convertible notes in the amount of $3,719,100, convertible into 3,744,548 shares of common stock. The issuance of shares of common stock upon exercise of outstanding warrants or conversion of convertible notes could result in substantial dilution to our stockholders, which may have a negative effect on the price of our common stock.
The sale or issuance of our common stock to Oasis may cause dilution and the sale of the shares of common stock acquired by Oasis, or the perception that such sales may occur, could cause the price of our common stock to fall.

On November 25, 2019, we entered into the Oasis Purchase Agreement with Oasis, pursuant to which Oasis has committed to purchase up to $40,000,000 of our common stock (see “Prospectus Summary”).

The purchase price for the shares that we may sell to Oasis under the Oasis Purchase Agreement will fluctuate based on the market price of our common stock. Depending on market liquidity at the time, sales of such shares may cause the market price of our common stock to fall.

Sales of our common stock, if any, to Oasis will depend upon market conditions and other factors to be determined by us. As such, Oasis may ultimately purchase all, some or none of the shares of our common stock that may be sold pursuant to the Oasis Purchase Agreement and, after it has acquired shares, Oasis may sell all, some or none of those shares. Therefore, sales to Oasis by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Oasis, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

Our issuance of common stock to Discover upon conversion of the Discover Note may cause dilution and the sale of the shares of common stock acquired by Discover, or the perception that such sales may occur, could cause the price of our common stock to fall.

On December 9, 2019, we issued the Discover Note to Discover (see “Prospectus Summary”). The conversion price for the shares that we may issue to Discover under the Discover Note will fluctuate based on the market price of our common stock. Such issuances, or the perception that such issuances may occur, could cause the price of our common stock to fall. Further, under the Discover Note, we will be required to issue additional shares of common stock to Discover in the event the conversion price falls below the estimated conversion price with respect to any completed conversion by Discover. This may result in substantial dilution to our stockholders.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus contains forward-looking statements. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements.

In some cases, you can identify forward-looking statements by terminology, such as “expects”, “anticipates”, “intends”, “estimates”, “plans”, “potential”, “possible”, “probable”, “believes”, “seeks”, “may”, “will”, “should”, “could” or the negative of such terms or other similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements.

You should read this prospectus and the documents that we reference herein and therein and have filed as exhibits to the registration statement, of which this prospectus is part, completely and with the understanding that our actual future results may be materially different from what we expect. You should assume that the information appearing in this prospectus is accurate as of the date on the front cover of this prospectus only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. These risks and uncertainties, along with others, are described above under the heading “Risk Factors” of this prospectus. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events, except as may be required under applicable law. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus, and particularly our forward-looking statements, by these cautionary statements.
This prospectus also includes estimates of market size and industry data that we obtained from industry publications and surveys and internal company sources. The industry publications and surveys used by management to determine market size and industry data contained in this prospectus have been obtained from sources believed to be reliable.

**USE OF PROCEEDS**

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholders. We will receive no proceeds from the sale of shares of common stock by the selling stockholders in this offering. The proceeds from the sales will belong to the selling stockholders. However, we may receive up to $40,000,000 under the Oasis Purchase Agreement with Oasis.

We estimate that the net proceeds to us from the sale of our common stock to Oasis pursuant to the Oasis Purchase Agreement will be up to approximately $39.5 million over an approximately 36-month period, assuming that we sell the full amount of our common stock that we have the right, but not the obligation, to sell to Oasis under that agreement and other estimated fees and expenses. However, we are registering for resale under this prospectus, only a portion of the shares we may sell to Oasis under the Oasis Purchase Agreement.

We expect to use any proceeds that we receive under the Oasis Purchase Agreement for general corporate purposes, including working capital. We may also use a portion of the net proceeds to acquire or invest in businesses, technologies, and products that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus, except as set forth in this prospectus.

**SELLING STOCKHOLDERS**

This prospectus relates to the offering by the selling stockholders of up to 26,806,714 shares of common stock offered by the selling stockholders.

The following table sets forth, based on information provided to us by the selling stockholders or known to us, the name of each selling stockholder, and the number of shares of our common stock beneficially owned by the stockholder before this offering. The number of shares owned are those beneficially owned, as determined under the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under these rules, beneficial ownership includes any shares of common stock as to which a person has sole or shared voting power or investment power and any shares of common stock which the person has the right to acquire within 60 days through the exercise of any option, warrant or right, through conversion of any security or pursuant to the automatic termination of a power of attorney or revocation of a trust, discretionary account or similar arrangement. None of the selling stockholders is a broker-dealer or an affiliate of a broker-dealer. None of the selling stockholders has had a material relationship, within the past three years, with us or with any of our predecessors or affiliates.

We have assumed all shares of common stock reflected on the table will be sold from time to time in the offering covered by this prospectus. Because the selling stockholders may offer all or any portions of the shares of common stock listed in the table below, no estimate can be given as to the amount of those shares of common stock covered by this prospectus that will be held by the selling stockholders upon the termination of the offering.
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<th>Selling Stockholder</th>
<th>Number of Shares of Common Stock Beneficially Owned Before Offering</th>
<th>Number of Shares Offered</th>
<th>Number of Shares Beneficially Owned After the Offering</th>
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</table>

(1) Adam Long has voting and investment power over the shares held by the selling stockholder. The shares being offered include 1,228,501 Commitment Shares we issued to the selling stockholder and an additional 14,313,632 shares we may issue to the selling stockholder pursuant to the Oasis Purchase Agreement. See “Prospectus Summary.”

(2) John Kirkland has voting and investment power over the shares held by the selling stockholder. The shares being offered include 11,100,000 shares we issued to the selling stockholder, and an additional 11,000,000 shares issuable upon conversion of the Discover Note. See “Prospectus Summary.”

(3) Matt Talley has voting and investment power over the shares held by the selling stockholder.

(4) Lou Posner has voting and investment power over the shares held by the selling stockholder. The shares being registered represent shares underlying the Auctus Warrants. Auctus also owns the Auctus Note. The Auctus Note may not be converted to common stock to the extent such conversion would result in the holder beneficially owning more than 4.99% of the Company’s outstanding common stock. The number of shares deemed beneficially owned before and after the offering by Auctus is limited accordingly.

(5) Dan Harmon and Terry Herring have voting and investment power over the shares held by the selling stockholder. H2 Consulting are business development consultants for Olaragen.

**DIVIDEND POLICY**

We have not paid cash dividends on our common stock in the past and have no present intention of paying cash dividends on our common stock in the foreseeable future. We have issued stock dividends and a dividend of shares of our subsidiary, NuGenerex Immuno-Oncology, Inc. (NGIO, formerly Antigen Express, Inc.).

**MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis of financial condition and results of operations should be read together with our financial statements and accompanying notes appearing elsewhere in this prospectus. This Management’s Discussion and Analysis contains forward-looking statements that involve risks and uncertainties. Please see “Forward-Looking Statements” set forth in the beginning of this prospectus, and see “Risk Factors” beginning on page 7 for a discussion of certain risk factors applicable to our business, financial condition, and results of operations. Operating results are not necessarily indicative of results that may occur in future periods.

The following discussion and analysis by management provides information with respect to our financial condition and results of operations for the fiscal year ended July 31, 2019 and 2018, and the three months ended October 31, 2019. We engaged in certain acquisition transactions during the twelve months ended July 31, 2019 and the three months ended October 31, 2019, with effective dates as follows:

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On August 16, 2019, the Company entered into a Share Exchange Agreement to purchase an additional 900,000 shares in Olaregen Therapeutix Inc. from Olaregen Therapeutix LLC increasing Generex’s ownership from approximately 62% to 77%

Effective August 1, 2019 we purchased the assets of Pantheon and MediSource Partners. Our balance sheet at July 31, 2019 does not include our interest in Pantheon and MediSource Partners assets as our interest commenced after period ended July 31, 2019.

Effective October 3, 2018, we purchased certain assets of Veneto Holdings, L.L.C. (“Veneto”), and its subsidiaries (the “First Closing Assets”). We acquired additional assets of Veneto effective November 1, 2018 (the “Second Closing Assets” and together with the First Closing Assets, the “Acquired Veneto Assets.”). The transaction was subsequently renegotiated, culminating in an amendment, a “Restructuring Agreement” March 28, 2019, but that did not affect our interest in the assets, or production thereof, and only effected the transaction price. Subsequent to the Restructuring Agreement, we entered into litigation with Veneto and their constituent parties which may affect the future of those assets but does not currently affect the accounting for the Acquired Veneto Assets and recently filed a motion for Arbitration on September 10, 2019. Our balance sheet at July 31, 2019 includes our interest in the Acquired Veneto Assets, the obligations issued in connection with the purchase of the Acquired Veneto Assets. Our interest in the results of operations of the First Closing Assets since October 3, 2018 and the Second Closing Assets since November 1, 2018 is included in our Consolidated Statement of Operations and Comprehensive Loss for the year ended July 31, 2019. We are currently in litigation with Veneto and its affiliates regarding the assets and business transferred. Many of the contractual arrangement we assumed from Veneto have been terminated, and we have had to rebuild the business relationships and the structure of the contractual relationships we took over from Veneto.

Effective January 7, 2019, we purchased a majority interest in the capital stock of Regentys Corporation.. Our balance sheet at July 31, 2019 includes our interest in Regentys and our interest in the results of operations of Regentys for the periods ended July 31, 2019 is included in our Consolidated Statement of Operations and Comprehensive Loss for the year ended July 31, 2019.

Effective January 7, 2019, we purchased a majority interest in the capital stock of Olaregen Therapeutix Inc. Our balance sheet at July 31, 2019 includes our interest in Olaregen and our interest in the results of operations of Olaregen for the period ended July 31, 2019 is included in our Consolidated Statement of Operations and Comprehensive Loss for the year ended July 31, 2019.

Executive Summary

Preliminary Note

On January 17, 2017, we acquired a 51% interest in Hema Diagnostic Systems, LLC.

On December 1, 2018, we acquired the remaining equity of HDS, and HDS became a wholly owned subsidiary; we have renamed HDS as NuGenerex Diagnostics (NGDx). We intend to focus resources on NGDx’s business as well as other potential acquisition candidates going forward, but do not intend to discontinue our pre-Acquisition activities.

On August 1, 2019, the Company, through its wholly owned subsidiary NDS, closed on Asset Purchase Agreements for the purchase of substantially all the operating assets of MediSource Partners, LLC and Pantheon Medical - Foot & Ankle, LLC.

On October 3, 2018, we acquired the First Closing Assets from Veneto, primarily consisting of the operating assets of (a) system dispensing pharmacies, (b) a central adjudicating pharmacy, (c) a wholesale pharmaceutical purchasing company, and (d) an in-network laboratory.

On October 3, 2018 we consummated the acquisition of the Second Closing Assets, consisting primarily of Veneto’s management services organization business and two additional ancillary services. The aggregate price for the First Closing Assets and the Second Closing Assets was $30,000,000. We issued a promissory note in the principal amount of $35,000,000 consisting of the $30,000,000 purchase price and a $5,000,000 original issue discount, as the sole consideration payable on the Second Closing Date. In addition, we agreed to assume approximately $3.8 million in outstanding institutional debt of Veneto subsidiaries, but will have use of Veneto cash and the collateral of the underlying assets outlined in the note, which would otherwise have been applied to paying down the debt, or securing by the assets.
On January 15, 2019, we entered into an Amendment Agreement with Veneto and the equity owners of Veneto entered into restructuring payment of the note as follows:

• Payment of $15,750,000 by delivery of Generex common stock, initially valued at $2.50 per share.

• If, on the first to occur of (i) the ninetieth (90th) day after closing under the Amendment and (ii) the effective date of a registration statement filed with the SEC including the Generex shares pursuant to the amendment, the average volume weighted average price (“VWAP”) of Generex common stock for the preceding five (5) trading days is less than $2.50 share, Generex will deliver additional Generex Shares such that the aggregate number of shares delivered under this agreement equals $15,750,000 ÷ such average VWAP.

• The remainder of the principal and interest under the Note were to be payable on April 15, 2019; provided that on that maturity date, Veneto shall have the option of (i) payment of principal and interest in cash and (ii) payment of principal and interest by Generex’s delivery of Generex Shares valued at $2.50 per share.

• All Generex shares issued pursuant to the amendment will be delivered pro rata to the six equity owners of Veneto as distributions from Veneto.

On March 28, 2019 we entered into an amendment, the Restructuring Agreement with Veneto with respect to the payment terms of the January 15, 2019 promissory note. The parties agreed to restructure the terms as follows:

• In lieu of any payments under the agreement or the note, we will deliver shares of its common stock and the common stock of its subsidiary, Antigen;

• All shares of our common stock delivered pursuant to the foregoing sentence will be outstanding shares held by existing shareholders;

• 8.4 million of our shares have been placed in escrow as of May 6, 2019, and delivered to the transfer agent on May 9, 2019 for transfer;

• 5.5 million of Antigen’s common stock; and

• Limited “downside protection” to ensure the value of our common stock to be delivered.

On January 7, 2019, we acquired a majority interest in Regentys Corporation ("Regentys") for an aggregate of $15,000,000, among which $400,000 was paid in cash and the remainder was paid by the issuance of a promissory note in the amount to $14,600,000. Installments payable under the note were tied to specific business development objectives and dates. As of January 31, 2020, the Company has made a total of $1,162,450 in principal payments. The promissory note the Company has a principal balance due as of January 31, 2020 of $7,287,550, plus interest, $5,000,000 was due on or about February 1, 2020 and the final payment of $1,150,000, plus any accrued interest is due on or about February 1, 2021. We did not make the required payments on January 31, 2019 and February 1, 2020. Regentys is developing a non-surgical treatment for inflammatory bowel diseases such as ulcerative colitis and Crohn’s disease.

On January 7, 2019, we acquired a majority interest in Olaregen for an aggregate of $12,000,000. $400,000 was paid in cash and the remainder was paid by the issuance of a promissory note. As of January 31, 2020, an aggregate of $1,696,500 has been paid in addition to the $400,000 initial payment. The promissory note has a principal balance due, as of January 31, 2020, of $9,903,500, plus interest due on or about January 31, 2020. We have not made this payment.

Olaregen has not filed any notice of default as of the date of publication, and we continue to provide Olaregen with business opportunities continuing the relationship. Olaregen launched Excellagen, an FDA 510(k) cleared product for the management of wounds.
We intend to focus resources on NGDx’s business, and on the businesses of Regentys, Olaregen and the MSO business acquired from Veneto, as well as additional acquisition targets, but do not intend to discontinue our historical activities. However, we will not pursue our historical business if we do not receive substantial financing for that purpose.

Results of Operations

Three months ended October 31, 2019 compared to three months ended October 31, 2018

We had a net loss for the three months ended October 31, 2019 of $9,312,547 and a net gain of $17,785,747 in the corresponding three months of the prior fiscal year. The net loss for the three months ended October 31, 2019 was primarily caused by general and administrative expenses of $4,787,039 and other expenses consisting of changes in fair value of derivative liabilities of approximately $1,836,000, and interest expense of approximately $2,516,000. The net gain for the three months of the prior fiscal year was caused primarily by the change in fair value of contingent purchase consideration of $19,545,098 which did not exist during the first quarter of 2020. One of the reasons for the increase in net loss for the three months ended October 31, 2019 is due to additional expenses incurred from entities acquired during fiscal year 2019.

The $2,514,398 increase in general and administrative expenses in the quarter ended October 31, 2019 versus the comparative previous fiscal quarter is due to compensation expense of approximately $1,613,000 not including compensation incurred from newly acquired entities and approximately $1,375,000 of expenses incurred from Regentys, Olaregen and MediSource Pantheon all of which had not yet been acquired in the previous fiscal year.

Our interest expense in the three months ended October 31, 2019 was $2,516,113 compared to the previous year’s fiscal three months of $165,716 which is primarily due to the amortization of debt discount relating to the convertible promissory notes.

Year ended July 31, 2019 Compared to Year ended July 31, 2018

We had a net loss for the year ended July 31, 2019 in the amount ($11,006,794) versus net income of $35,948,698 in the prior fiscal year. The decrease in net income was primarily attributable to the increase in general and administrative expenses, interest expense and change in value of contingent purchase consideration. Our operating loss for the year ended July 31, 2019 increased to $24,345,441 compared to $2,495,609 in the fiscal year 2018. The rise in operating loss resulted from an increase in stock compensation expense to $3,003,380 from $0, an increase in professional services to $7,255,262 from $714,963, an increase in salary and wages to $5,114,311 from $815,955, an increase in financial services to $899,682 from $103,809, an increase in travel expenses to $459,232 from $48,060, an increase in other general and administrative expenses to $4,216,692 from $662,310, research and development costs to $1,748,882 from $839,147 and an increase in bad debt expense in the current fiscal year was $3,252,439 compared to the previous fiscal year $0. Revenue in years ended July 31, 2019 and 2018 was $6,203,761 and $703,244, respectively.

The bad debt expense in the current fiscal year was $3,252,439 compared to the previous fiscal year $0 due the impairment of accounts receivables and note receivables derived from Veneto Holdings, L.L.C. which was acquired during fiscal year 2019.

The increase in revenue was generated from Veneto which was acquired during fiscal year 2019.

Interest expense in the current fiscal year was $7,087,502 compared to the previous fiscal year $583,594. Change in fair value of derivative liabilities was $2,125,449 in the 2019 fiscal year compared to $0 in the previous 2018 fiscal year. Change in value of contingent purchase consideration in the current fiscal year was $18,587,782 compared to the previous fiscal year $39,027,901 (Note 9).

The increase in research and development expenses in the year ended July 31, 2019 versus the comparative previous fiscal year is primarily due the expenses incurred by Regentys Corporation.
Sources of Liquidity

To date we have financed our activities primarily through private placements of our common stock, securities convertible into our common stock, and investor loans. We will require additional funds to support our working capital requirements and any development or other activities. NGDx will require additional funds to support its working capital requirements and any development or other activities or will need to curtail its research and development and other planned activities or suspend operations. NGDx will no longer be able to rely on its former primary owner for necessary financing. Going forward, NGDx will rely on Generex financing activities to fund NGDx operations, development and other activities.

As of December 16, 2019, the Company’s cash position is not sufficient for twelve months of operations. Anticipated revenues associated with MediSource and Pantheon acquisitions are expected to alter the cash flow landscape.

While we have financed our development stage activities to date primarily through private placements of our common stock and securities convertible into our common stock, as well as investor notes, and raised approximately $6.5 million during fiscal 2019 (including proceeds from issuance of convertible notes), and approximately $2.0 million during the quarter ending October 31, 2019, our cash balances have been low throughout fiscal 2019 and the quarter ending October 31, 2019.

Management may seek to meet all or some of our operating cash flow requirements through financing activities, such as private placement of our common stock, preferred stock offerings and offerings of debt and convertible debt instruments as well as through merger or acquisition opportunities.

In addition, management is actively pursuing financial and strategic alternatives, including strategic investments and divestitures, industry collaboration activities, and potential strategic partners. Management has sold non-essential real estate assets which are classified as Assets Held for Investment to augment our cash position and reduce its long-term debt.

We will continue to require substantial funds to continue research and development, including preclinical studies and clinical trials of our product candidates, further clinical trials for Oral-lyn™ and to commence sales and marketing efforts if the FDA or other regulatory approvals are obtained.

Financings

Following is a summary of the financing activities that we have completed since the end of fiscal 2018.

Financing – August 8, 2019

On August 8, 2019, borrowed $1,000,000 from an investor with a $150,000 original issue discount. The note accrues at 9% per annum and has a maturity date of August 7, 2020.
Convertible Note Transactions

Financing – January 18, 2019
Investor Note convertible into stock

On January 18, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $530,000. The note accrues at 10% per annum and has a maturity date of January 18, 2020 and is convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, the investor has converted 205,897 shares and has a principal balance remaining of $250,000.

Financing – January 18, 2019
Investor Note convertible into stock

On January 18, 2019, we entered into a Convertible Note and Securities Purchase Agreement with an investor in the principal amount of $750,000. The Note accrues at 10% per annum and has a maturity date of January 18, 2020 and is convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, there have been no conversions and the full balance remains outstanding.

Financing – January 21, 2019
Investor Note convertible into stock

On January 21, 2019, we entered into a Convertible Note and Securities Purchase Agreement with an investor in the principal amount of $530,000. The Note accrues at 10% per annum and has a maturity date of January 21, 2020 and is convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, $28,136 has been converted into common shares and $435,000 remains outstanding.

Financing – January 22, 2019
Investor Note convertible into stock

On January 22, 2019, we entered into a Convertible Note and Securities Purchase Agreement with an investor in the principal amount of $1,050,000. The Note accrues at 10% per annum and had a maturity date of January 22, 2020 and was convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, the investor has converted the entire note, principal and accrued interest, into 806,516 shares.

Financing – February 4, 2019
Investor Note convertible into stock

On February 4, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $750,000. The note accrues at 10% per annum and had a maturity date of February 4, 2020 and was convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, there have been no conversions and the full balance remains outstanding.

Financing – April 23, 2019
Investor Note convertible into stock

On April 23, 2019, we entered into convertible notes and securities purchase agreements with two investors in the principal amount of $530,000. The notes accrue at 10% per annum and have a maturity date of April 23, 2020 and are convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, there have been no conversions and the full balance remains outstanding.
On April 8, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $530,000. The note accrues at 10% per annum and had a maturity date of April 8, 2020 and was convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, there have been no conversions and the full balance remains outstanding.

On May 10, 2019, we entered into a promissory note with a lender in the principal amount of $2,000,000. The note accrues at 7% per annum and had a maturity date of August 1, 2019. The note remains outstanding and interest has continued to accrue while new terms of the note are in process of being negotiated.

On May 24, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $278,300. The note accrues at 9% per annum and had a maturity date of May 24, 2020 and was convertible into common voting shares at a variable rate determined in the instrument. As of July 31, 2019, there have been no conversions and the full balance remains outstanding.

On July 8, 2019, we borrowed $1,000,000 from an investor with a $150,000 original issue discount. The note accrues at 9% per annum and has a maturity date of August 7, 2020.

On August 14, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $1,100,000. The note accrues at 10% per annum and has a maturity date of August 14, 2020 and is convertible into common voting shares at a variable rate determined in the instrument.

On August 29, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $250,000. The note accrues at 9% per annum and has a maturity date of August 28, 2020 and is convertible into common voting shares at a variable rate determined in the instrument.

On September 13, 2019, we entered into a convertible note and securities purchase agreement with an investor in the principal amount of $872,000. The note accrues at 9.5% per annum and has a maturity date of September 12, 2020 and is convertible into common voting shares at a variable rate determined in the instrument.

On October 26, 2018, we entered into a securities purchase agreement with an investor pursuant to which the Company agreed to sell and sold its note due October 26, 2019 in the principal amount of $682,000. The purchase price of the note was $550,000 from which we were required to pay the $15,000 fee of the investor’s counsel. The remaining $122,000 of principal amount represents original issue discount. The note does not bear any stated interest in addition to the original issue discount.

Joseph Moscato, our President & Chief Executive Officer, has guaranteed our obligations under the note. In addition, Mr. Moscato has pledged as collateral for the guaranty 156,400 shares of our common stock.

The note provided it would become due and payable prior to maturity if our common stock is not listed for trading on a NASDAQ market on or before ninety (90) days after the date of the note. The listing has not occurred. In January 2019, the note holder demanded repayment on this basis and in March 2019, filed suit to recover the principal amount of the note plus interest. The company has answered the claim and the matter is currently in litigation.

On November 25, 2018, Generex entered into a securities purchase agreement with an investor pursuant to which the Company agreed to sell and sold its note due November 26, 2019 in the principal amount of $1,060,000. The purchase price of the note was $1,000,000. The remaining $60,000 of principal amount represents original issue discount. The note does not bear any stated interest in addition to the original issue discount.
Joseph Moscato, our President & Chief Executive Officer, has guaranteed our obligations under the note. In addition, Mr. Moscato has pledged as collateral for the guaranty 400,000 shares of our post-stock dividend common stock owned by him. At the option of either the investor or Mr. Moscato, all or any party of the loan can be paid with shares of the pledged stock valued at $2.50 per share, without default.

In July 2019, the note was converted in full to shares of our common stock, pursuant to the option contained in Mr. Moscato’s guarantee.

**Cash Flows for the Three Months ended October 31, 2019**

For the fiscal quarter ended October 31, 2019, we used $1.8 million in cash to fund our operating activities. The use for operating activities included a net loss of $9.2 million. Changes to working capital included an increase of $2.5 million related to accounts payable and accrued expenses.

The use of cash was offset by non-cash expenses of $0.2 million related to depreciation and amortization, $0.8 million related to stock compensation, $0.4 loss on settlement of debt, $2.2 million of amortization of debt discount and $3.0 million change in fair value of downside protection partially offset by a gain in fair value of derivative liabilities - convertible notes of $1.5 million.

In the three months ended October 31, 2019, we had net cash provided by investing activities of $0.05 million primarily relating to cash received in the acquisition of MediSource Pantheon.

We had cash provided by financing activities in the three months ended October 31, 2019 of $2 million, most of which pertained to proceeds from investors of $3 million partially offset by payments on notes payable of $0.9 million.

Our net working capital deficiency increased to $32.1 million from $28.0 million at October 31, 2019, which was attributed primarily to an increase in accounts payable and accrued expenses as well as increase in notes payable.

**Cash Flows for the Year ended July 31, 2019**

For the year ended July 31, 2019, we used $9.6 million in cash to fund our operating activities. The use for operating activities included a net loss of $11 million, changes in fair value of contingent purchase consideration of $18.6 million, and $2.1 million for changes in fair value of derivatives.

The use of cash was offset by non-cash expenses of $0.4 million related to depreciation and amortization, $3 million related to the issuance of stock options as compensation, $3.1 million related to amortization of debt discount, $3.3 million related to bad debt expense and $11.1 million related to changes in working capital. Changes to working capital including an increase of $9.3 million related to accounts payable and accrued expenses, a decrease of $0.8 million in accounts receivable and a decrease of $1.1 million in inventory.

In the year ended July 31, 2019, we had net cash provided by investing activities of $2.3 million primarily relating to cash received in the acquisition of Veneto.

We had cash provided by financing activities in the fiscal year ended July 31, 2019 of $6.5 million, which pertained to proceeds from notes payable of $6.3 million offset by repayments on notes payable of $0.2 million.

Our net working capital July 31, 2019 declined to deficiency of $28 million from a deficiency of $24 million at July 31, 2018, which was attributed primarily to an increase in notes payable of $8 million, an increase in accounts payable and accrued expenses of $8 million, an increase of deferred tax liability of $1.5 million, and a decrease in cash of $0.7 million. These were partially offset by a decrease in loans from related parties of $13.8 million and an increase of inventory and other current assets of $0.4 million.
Funding Requirements and Commitments

In addition to our commitments under the financings described above, we have the following obligations:

Veneto Acquisition Related Debt

On November 1, 2018, in connection with the completion of the acquisition of the pharmacy, management service organization and other assets of Veneto, our subsidiary, NuGenerex Distribution Solutions 2, LLC, issued Veneto a promissory note in the principal amount of $35,000,000. The note calls for payment in full on or before January 15, 2019 with interest at an annual rate of 12% on the $30,000,000 portion of the New Note representing the purchase price of the Assets. The note is guaranteed by Generex and Joseph Moscato and secured by a first priority security interest in all of Generex’s assets. Mr. Moscato’s guaranty is limited to the principal amount of $15,000,000.

On January 15, 2019, we entered into an Amendment Agreement with Veneto and the equity owners of Veneto entered into restructuring payment of the Note as follows:

- Payment of $15,750,000 by delivery of Generex common stock, initially valued at $2.50 per share.

- If, on the first to occur of (i) the ninetieth (90th) day after closing under the Amendment and (ii) the effective date of a registration statement filed with the SEC including the Generex shares pursuant to the Amendment, the average volume weighted average price ("VWAP") of Generex common stock for the preceding five (5) trading days is less than $2.50 share, Generex will deliver additional Generex Shares such that the aggregate number of shares delivered under this Agreement equals $15,750,000 ÷ such average VWAP.

- The remainder of the principal and interest under the Note shall be payable on April 15, 2019; provided that on that maturity date, Veneto shall have the option of (i) payment of principal and interest in cash and (ii) payment of principal and interest by Generex’s delivery of Generex Shares valued at $2.50 per share.

- All Generex shares issued pursuant to the Amendment will be delivered pro rata to the six equity owners of Veneto as distributions from Veneto

As of the date hereof, we had delivered the shares of Generex Common Stock to the transfer agent for distribution to the Veneto equity owners, and the transaction is finalized.

On March 28, 2019, we entered into an amendment Restructuring Agreement with Veneto with respect to the payment terms of the January 15, 2019 promissory note. The parties agreed to restructure the terms as follows:

- In lieu of any payments under the agreement or the note, we will deliver shares of our common stock and the common stock of our subsidiary, Antigen;

- All shares of our common stock delivered pursuant to the foregoing sentence will be outstanding shares held by existing shareholders;

- 8.4 million of our shares have been placed in escrow as of May 6, 2019, and delivered to the transfer agent on May 9, 2019 for transfer;

- 5.5 million of Antigen’s common stock as the original agreement was pre dividend and the restructuring was ex-dividend, and the company honored the intent of the prior agreements; and

- Limited “downside protection” to ensure the value of our common stock to be delivered.
Olaregen and Regentys Acquisitions

Olaregen

As of January 7, 2019, we completed a definitive stock purchase agreement and related documents relating to our purchase of 3,282,632 newly issued shares of Olaregen common stock representing 51% percent of the issued and outstanding capital stock of Olaregen for an aggregate $12,000,000.

In addition to $400,000 paid to Olaregen upon signing of the LOI, the purchase price for the Olaregen Shares will consist of the following cash payments:

• $800,000 on or before January 15, 2019. The Company has paid this installment.

• $800,000 on or before January 31, 2019. As of the date hereof the Company has paid $796,500 of this installment and remaining balance of $3,500 was payable on or before January 31, 2020 per extension in amended agreement.

• $3,000,000 on or before February 28, 2019. As of the date hereof, the Company has not yet paid this installment and the full balance of $3,000,000 was payable on or before January 31, 2020 per extension in amended agreement. We have not made this payment.

• $1,000,000 on or before May 31, 2019. As of the date hereof, the Company has not yet paid this installment and the full balance of $1,000,000 was payable on or before January 31, 2020 per extension in amended agreement. We have not made this payment.

• $6,000,000 on or before January 31, 2020. We have not made this payment.

Generex issued its promissory note in the amount of $11,600,000 representing its obligation to pay the above amounts. The note is secured by a pledge of the Olaregen Shares pursuant to a pledge and security agreement.

On November 24, 2019, the Company and Olaregen amended the stock purchase agreement and promissory note to extend the due date of the remaining balance of the note on or before January 31, 2020. We have not made this payment. The extension of this due date has no impact on the existing schedule of future payments or any additional terms within the note. Olaregen has not filed any notice of default as of the date hereof, and Generex continues to provide Olaregen with business opportunities continuing the relationship.

In the event Generex does not make any other payments, its share ownership of Olaregen will be proportionately reduced.

Based on the note, in the event any incremental payment is not paid when due, Olaregen has the option to increase the per share purchase price for all remaining purchased shares to $4.00 per share. Based on $1,400,000 of remitted payments and a note balance of $10,400,000 prior to the first extension agreement on March 14, 2019, Olaregen elected the option to proportionally increase the per share purchase price to $4.00 for the remaining 2,899,658 of the total 3,282,632 shares to be acquired. This will result in an additional $998,633 which has been accrued for the Company to remit to Olaregen pursuant to the acquisition. This additional amount will be penalty amounts will be paid out proportionately with future payments. For example, the $361,500 balance of the second tranche, at the original purchase price of $3.65 per share, would have paid for 99,041 Olaregen shares. The Company will now be required to pay 99,041 x $4.00 = 396,164 to complete the second tranche.

Generex has a limited anti-dilution right under the purchase agreement, to ensure that Generex will retain 51% ownership in Olaregen for a period of time.

Regentys

On January 7, 2019 the Company completed a definitive stock purchase agreement and related documents relating to our purchase of 12,048,161 newly issued shares of Regentys common stock representing 51% percent of the issued and outstanding capital stock of Regentys ("Regentys Shares").
In addition to $400,000 paid to Regentys upon signing of the LOI, the purchase price for the Regentys Shares consists of the following cash payments, with the proceeds intended to be used for specific purposes, as noted:

- $3,450,000 to initiate pre-clinical activities on or before January 15, 2019. As of the date hereof, the Company has paid $650,000 and the remaining balance of $2,800,000 is payable on or before January 31, 2019 per extension in amended agreement.

- $2,000,000 to initiate patient recruitment activities on or before May 1, 2019. As of the date hereof, the Company has not yet paid this installment and the full balance has been extended per the below.

- $3,000,000 to initiate a first-in-human pilot study as per below.

- $5,000,000 to initiate a human pivotal study on or before February 1, 2020.

- $1,150,000 to submit a 510(k) de novo submission to the FDA on or about February 1, 2021.

We issued a promissory note in the amount of $14,600,000 representing its obligation to pay the above amounts. The note is secured by a pledge of the Regentys Shares pursuant to a pledge and security agreement.

On November 25, 2019, the Company and Regentys amended the stock purchase agreement and Promissory note to extend the due date of the remaining balance of the note on or before December 30, 2019, which was further extended on January 10, 2020 further to January 31, 2020. A Fourth Payment of $5,000,000 was due on or about February 1, 2020 (which has not made made) and the final payment of $1,150,000.00 payable on or about February 1, 2021. The extension of this due date has no impact on the existing schedule of future payments or any additional terms within the note. Regentys has not filed any notice of default as of the date of publication, and Generex continues to provide Regentys with business opportunities continuing the relationship.

If we obtain necessary financing, we expect to expend resources towards additional acquisitions and regulatory approval and commercialization of Generex Oral-lyn™ and further clinical development of our immunotherapeutic vaccines.

In addition to the future funding requirements and commitments and our ability to raise additional capital will depend on factors that include:

- the timing and amount of expense incurred to complete our clinical trials;

- the costs and timing of the regulatory process as we seek approval of our products in development;

- the advancement of our products in development;

- our ability to generate new relationships with industry partners throughout the world that will provide us with regulatory assistance and long-term commercialization opportunities;

- the timing, receipt and amount of sales, if any, from Generex Oral-lyn™ in India, Lebanon, Algeria and Ecuador;

- the cost of manufacturing (paid to third parties) of our licensed products, and the cost of marketing and sales activities of those products;

- the costs of prosecuting, maintaining, and enforcing patent claims, if any claims are made;

- our ability to maintain existing collaborative relationships and establish new relationships as we advance our products in development;

- our ability to obtain the necessary financing to fund our operations and effect our strategic development plan; and

- the receptivity of the financial market to biopharmaceutical companies.
Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors, and we do not have any non-consolidated special purpose entities.

Recently Issued Accounting Standards

There were no additional recently issued accounting standards applicable other than those set forth in the financial statements of our Form 10-K for the year ended July 31, 2019 filed with the SEC on November 12, 2019, and our Form 10-Q for the period ending October 31, 2019 filed with the SEC on December 12, 2019 which included the following:

In February 2016, the FASB issued ASU No. 2016-02, Leases (“ASU 2016-02”). In January 2018, the FASB issued ASU 2018-01, which provides additional implementation guidance on the previously issued ASU 2016-02. Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and (2) a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. The Company is required to adopt ASU 2016-02 for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2018. This ASU will be effective for us in the first quarter of 2019 which begins with interim period ending July 31, 2019. We do not anticipate the adoption of this ASU to have a material impact to our financial statements.

In January 2017, the FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment (Topic 350), which eliminates Step 2 from the goodwill impairment test. Instead, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The Company will adopt the standard effective August 1, 2020. The Company is evaluating the effect that ASU 2017-04 will have on its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception. Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, Distinguishing Liabilities from Equity, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable non-controlling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. The Company early adopted the ASU 2017-11 in the second quarter as of January 31, 2019.

In February 2018, the FASB issued ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which was issued to address the income tax accounting treatment of the stranded tax effects within other comprehensive income due to the prohibition of backward tracing due to an income tax rate change that was initially recorded in other comprehensive income. This issue came about from the enactment of the TCJA on December 22, 2017 that changed the Company’s federal income tax rate from 35% to 21% effective January 1, 2018 and the establishment of a territorial-style system for taxing foreign-source income of domestic multinational corporations. In December 2017, the SEC issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Act (“SAB118”), which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment. The Company remeasured its deferred tax assets and liabilities as of July 31, 2018, applying the reduced corporate income tax rate and recorded a provisional decrease to the deferred tax assets of $31,876,520, with a corresponding adjustment to the valuation allowance. In the fourth quarter of fiscal year ended July 31, 2019, we completed our analysis to determine the effect of the Tax Act and there were no material adjustments as of July 31, 2019.

In August 2018, the FASB issued ASU 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement”, which adds disclosure requirements to Topic 820 for the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. This ASU is effective for interim and annual reporting periods beginning after December 15, 2019. The Company is evaluating the effect that ASU 2018-13 will have on consolidated financial statements.

Accumulated Other Comprehensive Income


Interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. The Company early adopted the
Accounting for Research and Development Projects

Our major research and development projects are focused on the clinical development of our peptide immunotherapeutic AE37. Additionally, we have developed the NGDx EXPRESS II Syphilis Treponema Assay.

We did not expend any material resources on our buccal insulin (Generex Oral-lyn™) or other oral delivery products in the fiscal quarters ended October 31, 2019 and 2018 or in the last two fiscal years due to lack of funds. The completion of further late-stage trials in Canada and the United States may require significantly greater funds than we currently have on hand.

During the three months ended October 31, 2019 and 2018, Antigen expensed $37,076 and $0, respectively, and during the year ended July 31, 2019 and 2018, we paid $354,000 and $234,000, respectively, to NSABP for clinical trials for additional research and development relating to Antigen’s peptide immune therapeutic vaccines. One Antigen vaccine is currently in Phase II clinical trials in the United States involving patients with HER-2/neu positive breast cancer, and we have completed a Phase I clinical trial for an Antigen vaccine for H5N1 avian influenza which was conducted at the Lebanese-Canadian Hospital in Beirut. Antigen’s prostate cancer vaccine based on AE37 has been tested in a completed (August 2009) Phase I clinical trial in Greece.

During the three months October 31, 2019 and 2018, NGDx expended $138,674 and $141,067 on research and development relating to its rapid diagnostic tests. During the fiscal year ended July 31, 2019, NGDx expended $598,000 resources on research and development relating to its rapid diagnostic tests. NGDx expects to expend resources on its rapid diagnostic test during the fiscal year ending July 31, 2020.

Because of various uncertainties, we cannot predict the timing of completion and commercialization of our buccal insulin or Antigen’s peptide immunotherapeutic vaccines or related technologies. These uncertainties include the success of current studies, our ability to obtain the required financing and the time required to obtain regulatory approval even if our research and development efforts are completed and successful, our ability to enter into collaborative marketing and distribution agreements with third-parties, and the success of such marketing and distribution arrangements. For the same reasons, we cannot predict when any products may begin to produce net cash inflows.

Most of our buccal delivery research and development activities to date have involved developing our platform technology for use with insulin. As a result, we have not made significant distinctions in the accounting for research and development expenses among products, as a significant portion of all research has involved improvements to the platform technology in connection with insulin, which may benefit all of our potential buccal products.

Because these products are in initial phases of clinical trials or early, pre-clinical stage of development (with the exception of the Phase II clinical trials of Antigen HER-2/neu positive breast cancer vaccine that are underway), all of the expenses were accounted for as basic research and no distinctions were made as to particular products. Due to the early stage of development, we cannot predict the timing of completion of any products arising from this technology, or when products from this technology might begin producing revenues.

Critical Accounting Policies

There are no material changes from the critical accounting policies set forth in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of our Form 10-K for the year ended July 31, 2019 filed with the SEC on November 12, 2019, except as follows:

We have adopted a sequencing policy whereby, in the event that reclassification of contracts from equity to assets or liabilities is necessary pursuant to ASC 815 due to our inability to demonstrate we have sufficient authorized shares, shares will be allocated on the basis of the earliest issuance date of potentially dilutive instruments, with the earliest grants receiving the first allocation of authorized but unissued shares, and all future instruments being classified as a derivative liability, with the exception of instruments related to share-based compensation issued to employees or directors.

Our discussion and analysis of our financial condition and results of operations is based on our condensed interim consolidated financial statements which have been prepared in conformity with accounting principles generally accepted in the United States of America. It requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.
**Going Concern.** As shown in the accompanying condensed interim consolidated financial statements for the period ending October 31, 2019 and the audited financial statement for the year ending July 31, 2019, we have not been profitable and have reported recurring losses from operations. These factors raise substantial doubt about our ability to continue to operate in the normal course of business. The accompanying consolidated financial statements do not include any adjustments that might be necessary should we be unable to continue as a going concern.

**Impairment of Long-Lived Assets.** Management reviews for impairment whenever events or changes in circumstances indicate that the carrying amount of property and equipment may not be recoverable under the provisions for the impairment of long-lived assets. If it is determined that an impairment loss has occurred based upon expected future cash flows, the loss is recognized in the Condensed Interim Consolidated Statement of Operations.

**Share-based compensation.** Management determines value of stock-based compensation to employees in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 718, Compensation – Stock Compensation. Management determines value of stock-based compensation to non-employees and consultants in accordance with ASC 505, Equity-Based Payments to Non-Employees.

**Derivative warrant liability.** FASB ASC 815, Derivatives and Hedging, requires all derivatives to be recorded on the condensed interim consolidated balance sheet at fair value for fiscal years beginning after December 15, 2008. As a result, certain derivative warrant liabilities (namely those with a price protection feature) are now separately valued as of August 1, 2009 and accounted for on our balance sheet, with any changes in fair value recorded in earnings. On our condensed interim consolidated balance sheets as of October 31, 2019 and July 31, 2019, we used the binomial lattice model to estimate the fair value of these warrants. Key assumptions of the binomial lattice option-pricing model include the market price of our stock, the exercise price of the warrants, applicable volatility rates, risk-free interest rates, expected dividends and the instrument’s remaining term. These assumptions require significant management judgment. In addition, changes in any of these variables during a period can result in material changes in the fair value (and resultant gains or losses) of this derivative instrument.

As reported above, the Company has a sequencing policy regarding share settlement wherein instruments with the earliest issuance date would be settled first. The sequencing policy also considers contingently issuable additional shares, such as those issuable upon a stock split, to have an issuance date to coincide with the event giving rise to the additional shares.

On January 24, 2019, the company entered into a note payable with an unrelated party at a percentage discount (variable) exercise price which causes the number to be converted into a number of common shares that “approach infinity”, as the underlying stock price could approach zero. Accordingly, all convertible instruments issued after January 24, 2019 are considered derivatives according to the Company’s sequencing policy.

Our financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses as well as the disclosure of contingent assets and liabilities. Critical accounting policies are those that require application of management’s most subjective or complex judgments, often as a result of matters that are inherently uncertain and may change in subsequent periods. Our critical accounting policies include those related to revenue recognition, allowance for doubtful accounts, acquisitions, income taxes and valuation of investments, derivatives and long-lived assets. Management bases its estimates and judgments on historical experience and other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. See Note 2 to the Consolidated Financial Statements in this prospectus for a complete discussion of our significant accounting policies.
BUSINESS

Corporate History

Generex Biotechnology Corporation (the “Company,” “Generex,” “we,” “us” or “our”) is based in Miramar, Florida, with offices in Dallas, Texas, Toronto, Canada and Wellesley, Massachusetts. The Company was originally incorporated in the state of Delaware on September 4, 1997, for the purpose of acquiring Generex Pharmaceuticals Inc., a Canadian (Province of Ontario) corporation formed in November 1995 to engage in pharmaceutical and biotechnological research and development and other activities. The Company’s acquisition of Generex Pharmaceuticals Inc. was completed in October 1997 in a transaction in which the holders of all outstanding shares of Generex Pharmaceuticals Inc. exchanged their shares for shares of Generex common stock.

In January 1998, Generex participated in a “reverse acquisition” with Green Mt. P.S., Inc, (“Green Mt.”), an inactive Idaho corporation formed in 1983. As a result of this transaction, the shareholders of Generex (the former shareholders of Generex Pharmaceuticals Inc.) acquired a majority (approximately 90%) of the outstanding capital stock of Green Mt., and Generex became a wholly-owned subsidiary of Green Mt.; Green Mt. changed its corporate name to Generex Biotechnology Corporation (“Generex Idaho”), and Generex changed its corporate name to GBC - Delaware, Inc. Because the reverse acquisition resulted in GBC - Delaware, Inc. shareholders (formally Generex shareholders) becoming the majority holders of Generex Idaho, GBC Delaware, Inc. was treated as the acquiring corporation in the transaction for accounting purposes. Thus, our, GBC - Delaware, Inc. (formally Generex), historical financial statements, which essentially represented the historical financial statements of Generex Pharmaceuticals Inc., were deemed to be the historical financial statements of Generex Idaho.

In April 1999, we completed a reorganization in which GBC - Delaware, Inc. merged with Generex Idaho. In this transaction, all outstanding shares of Generex Idaho were converted into shares of GBC - Delaware, Inc.; Generex Idaho ceased to exist as a separate entity, and we, GBC - Delaware, Inc., changed our corporate name back to "Generex Biotechnology Corporation.” This reorganization did not result in any material change in our historical financial statements or current financial reporting.

Following our reorganization in 1999, Generex Pharmaceuticals Inc., which was incorporated in Ontario, Canada, remained as our wholly-owned subsidiary. All of our Canadian operations are performed by Generex Pharmaceuticals Inc.; Generex Pharmaceuticals Inc. is the 100% owner of 1097346 Ontario Inc., which was also incorporated in Ontario, Canada. In August 2003, we acquired Antigen Express, Inc. (“Antigen”), a Delaware corporation. Antigen is engaged in the research and development of technologies and immunomedicines for the treatment of malignant, infectious, autoimmune and allergic diseases. Antigen also does business under the name NuGenerex Immuno-Oncology. On February 28, 2019 Generex issued a dividend of Antigen to Generex shareholders in the amount of 1 share of Antigen for every 4 shares of Generex common stock. Generex still maintains majority control of Antigen.

We formed Generex (Bermuda), Inc., which is organized in Bermuda, in January 2001 in connection with a joint venture with Elan International Services, Ltd., a wholly-owned subsidiary of Elan Corporation, plc, (“Elan”) to pursue the application of certain of our and Elan’s drug delivery technologies, including our platform technology for the buccal delivery of pharmaceutical products. In December 2004, we and Elan agreed to terminate the joint venture. Under the termination agreement, we retained all of our intellectual property rights and obtained full ownership of Generex (Bermuda), Inc.; Generex (Bermuda), Inc. does not currently conduct any business activities. We have additional subsidiaries incorporated in the U.S. and Canada which are dormant and do not carry on any business activities.

On January 18, 2017, we acquired a majority of the equity interests in Hema Diagnostic Systems, LLC. In December 2018, we acquired the remaining interest in HDS. The company, now a wholly-owned subsidiary of Generex, has been renamed NuGenerex Diagnostics, LLC (NGDx), and is managed by President Harold Haines, PhD.
On October 3, 2018, our wholly owned subsidiary, NuGenerex Distribution Solutions, LLC, entered into an asset purchase agreement (the “Veneto Asset Purchase Agreement”) with Veneto Holdings, L.L.C., pursuant to which NDS purchased certain assets of Veneto and its subsidiaries.

Effective as at October 3, 2018, NDS assigned the Veneto Asset Purchase Agreement to NuGenerex Distribution Solutions 2, LLC. The sole member of NuGenerex Distribution Solutions 2, LLC is NuGenerex Management Services, Inc., a wholly-owned subsidiary of Generex Biotechnology Corporation.

On October 3, 2018, we acquired certain assets from Veneto primarily consisting of the operating assets of (a) system dispensing pharmacies, (b) a central adjudicating pharmacy, (c) a wholesale pharmaceutical purchasing company, and (d) an in-network laboratory.

On November 1, 2018, we consummated the acquisition of Veneto assets (the “Second Closing Assets”), consisting primarily of Veneto’s management services organization business and other assets. The aggregate price for the First Closing Assets and the Second Closing Assets was $30,000,000. We issued a promissory note in the principal amount of $35,000,000 (the “New Note”) consisting of the $30,000,000 purchase price and a $5,000,000 original issue discount, as the sole consideration payable on the Second Closing Date. On January 15, 2019, the parties entered into an amendment to the Asset Purchase Agreement restructuring payment of the New Note.

On March 28, 2019, the Company entered into an amendment, a “Restructuring Agreement” with Veneto and the equity owners of Veneto to restructure the payment of the New Note that provided, in lieu of any cash payments, the Company delivered on May 23, 2019 8,400,000 shares of our common stock; plus an aggregate 5,500,000 shares of the common stock of our subsidiary, Antigen. The Veneto assets acquired by Generex included management services operations, systems, facilities, and other services.

On January 7, 2019, we acquired a majority interest in Regentys Corporation for an aggregate of $15,000,000, among which $400,000 was paid in cash and the remainder was paid by the issuance of a promissory note with a fair value of $14,342,414 for a total net purchase price of $14,742,414. The total fair value of the assets acquired totaled $907,883 and goodwill of $13,834,581. Installments payable under the note were tied to specific business development objectives and dates. As of January 24, 2020, an additional $1,168,265 ($650,000 of principal and $518,265 in interest) was paid against the note, for a total of $1,568,265 in total payments. Regentys is developing a non-surgical treatment for inflammatory bowel diseases such as ulcerative colitis and Crohn’s disease.

On January 7, 2019, we acquired a majority interest in Olaregen Therapeutix Inc. for an aggregate of $12,000,000, among which $400,000 was paid in cash and the remainder was paid by the issuance of a promissory note with a fair value of $11,472,334 for a total net purchase price of $11,872,663. The total fair value of the assets acquired totaled $2,461,439 and goodwill of $9,411,224. $1,291,500 principal was paid against the note as of July 31, 2019 and an additional $500,000 was paid subsequently for a total aggregate of $1,791,500 of principal payments in addition to the $400,000 initial payment. Olaregen is launching an FDA-510(k) cleared wound care product.

On May 10, 2019, we acquired from a third party the outstanding Series A Preferred Stock in Olaregen in exchange for 4 million shares of the Company’s common stock, plus the issuance of a $2 million promissory note increasing our interest in Olaregen to approximately 62% of Olaregen’s outstanding voting shares, and an additional 900,000 shares On August 16, 2019 further increased our interest in Olaregen to approximately 76%.

On August 1, 2019, the Company, through its wholly owned subsidiary NDS, closed on Asset Purchase Agreements (the “APAs”) for the purchase of substantially all the operating assets of MediSource Partners, LLC (“MediSource”) and Pantheon Medical – Foot & Ankle, LLC (“Pantheon”). Pantheon Medical is a manufacturer of orthopedic foot & ankle surgery kits that offer physician friendly “all-in-one,” integrated surgical kits that include plates, screws, and tools required for orthopedic surgeons and podiatrists conducting foot and ankle surgeries. Generex will issue 400,000 shares of common stock in exchange for the Pantheon assets, and 560,000 shares of common stock in exchange for the MediSource assets, plus additional amounts paid as an earn-out based upon Pantheon and Medisource exceeding specified.

On November 22, 2019, effective as of November 15, 2019, the Company entered into a Stock Purchase Agreement for the purchase of 51% of the outstanding capital stock of GH Care, Inc. DBA ALTuCELL, Inc. (“ALTuCELL”). Under the SPA, in exchange for the ALTuCELL Stock, Generex will issue to ALTuCELL 1,600,000 shares of Generex common stock with a down round provision and price floor of $1.25 per share. The Company will also pay $2.5 million in cash of which $112,000 has already been paid. In addition to stock and cash at closing, Generex has agreed to pay up to an aggregate of $3,500,000 to ALTuCELL upon ALTuCELL’s attainment of certain milestones.

Business Overview

Our management team has embarked upon a complete strategic reorganization and transformation of the entire corporate structure, leveraging our legacy assets which have applied over $400 million dollars in developmental activities over the years, providing the Company with net operating loss (“NOL”) carryforwards from both United States and Canadian sources. As of July 31, 2019, the Company has significant NOL carryforwards that are described in detail in the Notes to our Financial Statements included in this prospectus. We have also formulated an acquisition strategy and identified targets to build a specialized healthcare platform with both scalability and the ability to leverage across the organization in an effort to achieve higher profit margins.
Since the new management team has taken over in January 2017, Generex has been reorganized as a strategic, diversified life science holding company that is actively involved in building a modern organizational platform for the financing, development, commercialization, and distribution of promising devices, biologics, therapeutic, and diagnostic products to improve human health and return value to its investors. As the foundation for the reorganization, we are acquiring operating companies that provide multiple and significant revenue streams through delivery of patient-focused healthcare products and services, including specialty pharmacy, orthopedic implants, surgical supplies, biologics, medical devices, and regenerative medicines. These foundational acquisitions service unique market channels that provide end-to-end healthcare solutions in partnerships with patients, physicians, health systems, and payors. The synergistic business models of the combined organization offer cross channel sales opportunities for rapid growth, with significant revenues and profits projected going forward.

Details of the Generex business strategy are provided following the discussion of the Generex historical business and our legacy assets.

**Historical Business**

Historically, we have been a research and development company focused on the commercialization of Oral-lyn buccal insulin spray for diabetes. Additionally, through our wholly-owned subsidiary Antigen Express, we have a deep intellectual property portfolio of immunotherapy assets relating to the “Ii-Key” technology that activates the immune response for the treatment of cancer and infectious diseases. We have completed a Phase Ib clinical trial of AE37 immunotherapeutic peptide vaccine with the Ii-Key technology in over 300 women with breast cancer.

In 2017, we acquired HDS (now NuGenerex Diagnostics) and their diagnostic product portfolio of rapid point-of-care EXPRESS test kits and cassettes for infectious disease testing.

We believe that these legacy diagnostics, diabetes and cancer assets are may have significant value which is not being recognized due to missteps in the clinical development process by previous management, resulting inability to raise capital necessary to fund further development. We think the products and IP portfolio retain significant value. A recently signed co-development deal with a major pharmaceutical company for AE37 in triple negative breast cancer, and a licensing deal in China for AE37 in prostate cancer illustrate the potential for AE37 immunotherapeutic vaccine. Additionally, Oral-lyn has been reformulated to enter clinical trials for Type II diabetes. The HDS EXPRESS diagnostic technology has been expanded with the new, patent-pending EXPRESS II technology and a new product pipeline. We filled our first international commercial order for 40,000 units of its NGDx -Malaria PF/PV Cassette Test Kit to Imres, BV, a Netherlands-based medical distribution company, and were recently granted a CE Mark Certification under the European Medical Devices Directive (MDD) for its The Express II Syphilis Treponemal Assay, a rapid point-of-care diagnostic assay for the detection of syphilis antibodies in primary and secondary syphilis. As part of the reorganization plan, we placed our legacy assets into separate subsidiaries under the NuGenerex family of companies, including NuGenerex Diagnostics, NuGenerex Immuno-Oncology (Antigen Express), and NuGenerex Therapeutics (Oral-Lyn and RapidMist buccal delivery technology). Our strategy is to spin out NuGenerex Immuno-Oncology as a separately traded public company, to reignite the Oral-Lyn development program with a reformulated buccal insulin spray, and to build out the diagnostics business, as detailed in the following paragraphs, however there are no assurances that we will be able to accomplish our strategic objectives.

**Treatment of Legacy Assets**

Generex and its subsidiary companies have extensive patent portfolios, with intellectual property for composition of matter, formulation, design, and use in a number of therapeutic areas, across multiple indications. As described, we plan to build our legacy assets with the ultimate goal to spin-out such assets at the appropriate time, which have been incorporated into NuGenerex subsidiary companies in an effort to unlock the potential unrealized value of the intellectual property and commercial opportunities for these development companies in major markets for immuno-oncology, diabetes, and infectious disease testing:

- **NuGenerex Therapeutics**: Oral-lyn (Buccal Insulin) and RaidMist Buccal delivery technology.

- **NuGenerex Immuno-Oncology**: Phase II AE37 + Keytruda in TNBC; Antigen Express (Ii-Key), Licensing, Partnerships, investor dividend paid (1:4) for spin-out.

- **NuGenerex Diagnostics**: NGDx Express II rapid diagnostic tests for infectious disease.
NuGenerex Therapeutics houses the legacy diabetes assets, Oral-Lyn and RapidMist buccal delivery technology. We believe that our buccal delivery technology is a platform technology that has application to many large molecule drugs and designed to provide a convenient, non-invasive, accurate and cost-effective way to administer such drugs. We have identified several large molecule drugs as possible candidates for development, including cannabinoid medicines. To that end we have entered into a licensing agreement with Scientus Pharmaceuticals for the use of the RapidMist technology for the administration of cannabinoids.

**Buccal Delivery Technology and Products**

Our buccal delivery technology involves the preparation of proprietary formulations in which an active pharmaceutical agent is placed in a solution with a combination of absorption enhancers and other excipients classified “generally recognized as safe” (“GRAS”) by the U.S. Food and Drug Administration (“FDA”) when used in accordance with specified quantities and other limitations. The resulting formulations are aerosolized with a pharmaceutical grade chemical propellant and are administered to patients using our proprietary RapidMist™ brand metered dose inhaler. The device is a small, lightweight, hand-held, easy-to-use aerosol applicator comprised of a container for the formulation, a metered dose valve, an actuator and dust cap. Using the device, patients self-administer the formulations by spraying them into the mouth. The device contains multiple applications, the number being dependent, among other things, on the concentration of the formulation. Absorption of the pharmaceutical agent occurs in the buccal cavity, principally through the inner cheek walls. In clinical studies of our flagship oral insulin product Generex Oral-lyn™, insulin absorption in the buccal cavity has been shown to be efficacious and safe.

**Buccal Insulin Product – Generex Oral-Lyn™**

Insulin is a hormone that is naturally secreted by the pancreas to regulate the level of glucose, a type of sugar, in the bloodstream. The term “diabetes” refers to a group of disorders that are characterized by the inability of the body to properly regulate blood glucose levels. When glucose is abundant, it is converted into fat and stored for use when food is not available. When glucose is not available from food, these facts are broken down into free fatty acids that stimulate glucose production. Insulin acts by stimulating the use of glucose as fuel and by inhibiting the production of glucose. In a healthy individual, a balance is maintained between insulin secretion and glucose metabolism.

According to the Centers for Disease Control (CDC), there are two major types of diabetes. Type 1 diabetes (juvenile onset diabetes or insulin dependent diabetes) refers to the condition where the pancreas produces little or no insulin. Type 1 diabetes accounts for 5-10 percent of diabetes cases (CDC). It often occurs in children and young adults. Type 1 diabetics must take daily insulin injections, typically three to five times per day, to regulate blood glucose levels. Generex Oral-lyn™ provides a needle-free means of delivering insulin for these patients.

According to the American Diabetes Association, in Type 2 diabetes (adult onset or non-insulin dependent diabetes mellitus), the body does not produce enough insulin, or cannot properly use the insulin produced. Type 2 diabetes is the most common form of the disease and accounts for 90-95 percent of diabetes cases, according to the American Diabetes Association. In addition to insulin therapy, Type 2 diabetics may take oral drugs that stimulate the production of insulin by the pancreas or that help the body to more effectively use insulin. Generex Oral-lyn™ provides a simple means of delivering needed insulin to this major cohort of individuals.

Studies in diabetes have identified a condition closely related to and preceding diabetes, called impaired glucose tolerance (IGT). People with IGT do not usually meet the criteria for the diagnosis of diabetes mellitus. They have normal fasting glucose levels but two hours after a meal their blood glucose level is far above normal. With the increase use of glucose tolerance tests the number of people diagnosed with this pre-diabetic condition is expanding exponentially. Per the 2017 Diabetes Atlas Update, published by the International Diabetes Federation (IDF), approximately 40 million people in the United States and more than 425 million people world-wide suffer from IGT. Generex Oral-lyn™ is an ideal solution to providing meal-time insulin to the millions of IGT sufferers. This therapeutic area is currently being investigated.

There is no known cure for diabetes. The IDF estimates that there are currently approximately 382 million diabetics worldwide per their 2017 Diabetes Atlas Update and is expected to affect over 592 million people by the year 2035. There are estimated to be over 37 million people suffering from diabetes in North America alone and diabetes is the second largest cause of death by disease in North America.
A substantial number of large molecule drugs (i.e., drugs composed of molecules with a high molecular weight and fairly complex and large spatial orientation) have been approved for sale in the United States or are presently undergoing clinical trials as part of the process to obtain such approval, including various proteins, peptides, monoclonal antibodies, hormones and vaccines. Unlike small molecule drugs, which generally can be administered by various methods, large molecule drugs historically have been administered predominately by injection. The principal reasons for this have been the vulnerability of large molecule drugs to digestion and the relatively large size of the molecule itself, which makes absorption into the blood stream through the skin inefficient or ineffective. The RapidMist technology provides a recognized and proven drug delivery system for the delivery of large molecules directly into the blood stream with the attendant advantages.

**Oral-lyn History**

In May 2005, we received approval from the Ecuadorian Ministry of Public Health for the commercial marketing and sale of Generex Oral-lyn™ for treatment of Type 1 and Type 2 diabetes. We have successfully completed the delivery and installation of a turnkey Generex Oral-lyn™ production operation at the facilities of PharmaBrand in Quito, Ecuador. The first commercial production run of Generex Oral-lyn™ in Ecuador was completed in May 2006. While Ecuador production capability may be sufficient to meet the needs of South America, it is believed to be insufficient for worldwide production for future commercial sales and clinical trials.

On the basis of the test results in Ecuador and other pre-clinical data, we made an Investigational New Drug (“IND”) submission to Health Canada (Canada's equivalent to the FDA) in July 1998, and received permission from the Canadian regulators to proceed with clinical trials in September 1998. We filed an IND application with the FDA in October 1998, and received FDA approval to proceed with human trials in November 1998.

We began our clinical trial programs in Canada and the United States in January 1999. Between January 1999 and September 2000, we conducted clinical trials of our insulin formulation involving approximately 200 subjects with Type 1 and Type 2 diabetes and healthy volunteers. The study protocols in most trials involved administration of two different doses of our insulin formulation following either a liquid Sustacal meal or a standard meal challenge. The objective of these studies was to evaluate our insulin formulation's efficacy in controlling post-prandial (meal related) glucose levels. These trials demonstrated that our insulin formulation controlled post-prandial hyperglycemia in a manner comparable to injected insulin. In April 2003, a Phase II-B clinical trial protocol was approved in Canada. In September 2006, a Clinical Trial Application relating to our Generex Oral-lyn™ protocol for late-stage trials was approved by Health Canada. The FDA’s review period for the protocol lapsed without objection in July 2007.

In late April 2008, we initiated Phase III clinical trials in North America for Generex Oral-lyn™ with the first subject screening in Texas. Other clinical sites participating in the study were located in the United States (Texas, Maryland, Minnesota and California), Canada (Alberta), European Union (Romania, Poland and Bulgaria), Eastern Europe (Russia and Ukraine,) and Ecuador. Approximately 450 subjects were enrolled in the program at approximately 70 clinical sites around the world. The Phase III protocol called for a six-month trial with a six-month follow-up with the primary objective to compare the efficacy of Generex Oral-lyn™ and the RapidMist™ Diabetes Management System with that of standard regular injectable human insulin therapy as measured by HbA1c, in patients with Type-1 diabetes mellitus. The final subjects completed the trial in August 2011. After appropriate validation, the data from approximately 450 patients was tabulated, reviewed and analyzed. Those results from the Phase III trial along with a comprehensive review and supplemental analyses of approximately 40 prior Oral-lyn clinical studies were compiled and submitted to the FDA in late December 2011 in a comprehensive package including a composite metaanalysis of all safety data. We do not currently plan to expend significant resources on additional clinical trials of Oral-lyn™ until after such time that we secure additional financing. However, we have undertaken a formulation enhancement project with the University Health Network at the University of Toronto and the University of Guelph, Ontario to increase the amount of insulin reaching the blood stream. We believe that the preliminary results from animal study are encouraging.
In the past, we engaged a global clinical research organization to provide many study related site services, including initiation, communication with sites, project management and documentation; a global central lab service company to arrange for the logistics of kits and blood samples shipment and testing; an Internet-based clinical electronic data management company to assist us with global data entry, project management and data storage/processing of the Phase III clinical trial and regulatory processes. In the past, we have contracted with third-party manufacturers to produce sufficient quantities of the RapidMist™ components, the insulin, and the raw material excipients required for the production of clinical trial batches of Generex Oral-lyn™.

Future Plans

We have reformulated the original Oral-Lyn buccal insulin as a new patentable Oral-Lyn 2 that requires only 2 - 3 pre-prandial (before meal) sprays for the treatment of Type II diabetes. The reformulated Oral-lyn 2 was made possible by new techniques in protein chemistry and pharmaceutical formulation science, that with minimal changes in the production process and content of the components, allow the development of a new and improved, concentrated insulin formulation for improved diabetes management.

NuGenerex has engaged the University of Toronto’s Center for Molecular Design and Pre-formulations (CMDP) through the University Health Network with the goal of enhancing the Oral-lyn™ 2 formulation to make it more attractive to patients and prospective commercialization partners by increasing the bioavailability of insulin in the product and reducing the number of sprays required to achieve effective prandial metabolic control for patients with diabetes. Under the supervision of NuGenerex consultant Dr. Lakshmi P. Kotra, B.Pharm. (Hons), Ph.D., of CMDP, preliminary efforts succeeded in increasing the insulin concentration in the product by approximately 400 - 500% as confirmed by a variety of in vitro testing procedures, while preserving the solubility, stability, biologic activity, and potency of the insulin in the formulation.

NuGenerex subsequently entered into a Research Services Agreement with the University of Guelph pursuant to which Dr. Dana Allen, DVM, MSc. and Dr. Ron Johnson, DVM, Ph.D. of the Ontario Veterinary College of the University of Guelph conducted a study of the relative bioavailability of the enhanced formulation in dogs in the University’s Comparative Clinical Research Facility. The University had previously conducted the studies of the original formulation of Generex Oral-lyn™ for proof of concept, safety, and toxicity.

In the new studies, the enhanced NuGenerex Oral-lyn 2 formulation was compared with the original formulation in a blinded, parallel controlled study involving fasted, awake, healthy mature beagle dogs. Each dog received three sprays of either the enhanced formulation or the original formulation. Each dog was observed with assessments of serum insulin and glucose measured over a two-hour period. There were no adverse events observed in any of the animals.

In the dogs given the enhanced Generex Oral-lyn formulation (5X), there was a greater than 20-fold increase in serum insulin at 15 minutes (excluding one dog who had little response at any time point; (with dog included it was greater than 5-fold)) and almost 500% greater absorption of insulin over the two-hour test period compared to dogs given the original formulation (1X). There was a 33% decrease in serum glucose at 30 minutes in dogs treated with the enhanced Generex Oral-lyn™ formulation, compared to a 12% increase in serum glucose in dogs treated with the original formulation.

The results of the dog studies coupled with the positive findings from the in vitro work provide support and confidence to move forward with the remaining clinical and regulatory work necessary to achieve FDA approval of the enhanced NuGenerex Oral-lyn formulation through a 505(b)2 NDA.

The combined results provide evidence that the enhanced NuGenerex Oral-lyn 2 will be able to be used by people with either type 1 or type 2 diabetes mellitus as a safe, simple, fast, flexible, and effective alternative to pre-prandial insulin injections with dosing of only two to four sprays required before meals.

The Oral-lyn Safety Database contains information on 1,496 subjects. Eight hundred sixty-nine (869) subjects were exposed to Oral-lyn, while 627 served as Control subjects and were exposed to commercially available oral antihyperglycemics, injected insulin, or Oral-lyn placebo. There were 695 subjects in pK/pD studies (368, Oral-lyn; 327, Control) and 801 subjects in efficacy trials (501, Oral-lyn; 300, Control).
Two hundred seventy-two (272) Oral-lyn subjects reported at least one adverse event (132 in pK/pD studies; 140 in efficacy studies) while 278 Control subjects reported at least one adverse event (111 in pK/pD studies; 167 in efficacy studies). With respect to adverse events by Maximum Severity there appeared to be no significant differences between Oral-lyn and the Control groups in either the Efficacy or the pK studies.

In summary, there appear to be no indications of any significant unexpected adverse events. The expected events of hyposthesia oral, throat irritation, dry throat, and cough were for the most part mild and could be consistent with the Oral-lyn therapy especially during the learning phase of administration. There was an indication of overlap of some of these events with multiple event terms in the constellation of upper respiratory tract infection that appeared to be balanced across therapy groups.

Our strategy is to revitalize our diabetes program by advancing the reformulated buccal spray Oral-lyn 2 for the treatment of Type II diabetes, and to integrate Oral-Lyn 2 therapy into our end-to-end solution for disease management through our MSO model.

Beyond Oral-lyn 2 for Type II diabetes, we will advance the RapidMist buccal delivery technology with additional small and large molecule drugs which will benefit from an alternative route of administration.

**NuGenerex Immuno-Oncology (NGIO, formerly Antigen Express)**

NuGenerex Immuno-Oncology is developing immunotherapeutic products and vaccines based on our proprietary, patented platform technology, Ii-Key. The Ii-Key is a peptide derived from the major histocompatibility complex (MHC) Class II associated invariant chain (II) that regulates the formation, trafficking, and antigen-presenting functions of MHC class II complexes, essential for the activation of T cells in the immune response. T cells recognize antigenic epitopes when they are 'presented' to them by specific molecules, termed (MHC) on the surface of infected or malignant cells. This interaction activates the T cells, stimulating a multicellular cascade of actions that eliminates the diseased cell and protects against future disease recurrence.

When the Ii-Key peptide is linked to an antigenic epitope, it can bind to MHC Class II molecules, displacing resident antigens from the antigen binding groove, essentially 'hijacking' the MHC class II complex to present the Ii-Key epitope to selectively activate T-Cell Th1 responses, thereby increasing the intensity and duration of the immune response.

NuGenerex Immuno-Oncology has developed a number of Ii-Key Hybrid peptides for the immunotherapeutic targeting of tumor associated antigens (TAAs) in cancer and for vaccines against infectious diseases.

Ii-Key hybrid peptides can also be used to selectively activate Th2 responses and thereby induce tolerance to antigens involved in harmful immune reactions, e.g. autoimmunity, allergy, and transplant rejection.

**AE37 – Ii-Key/HER2/neu Hybrid Immunotherapeutic Vaccine**

Our most advanced immunotherapy vaccine is AE37, an Ii-Key-Hybrid molecule that contains the HER2/neu antigenic peptide linked to the Ii-Key to enhance immune stimulation against HER2, which is expressed in numerous cancers, including breast, prostate, and bladder cancers. We have completed a Phase I clinical trial of AE37 in breast cancer: A phase Ib safety and immunology study of AE37 and GM-CSF in 16 breast cancer patients who had completed all first-line therapies and who were disease-free at the time of enrollment to the study *(Holmes et al. Results of the first phase I clinical trial of the novel Ii-Key hybrid preventive HER-2/neu peptide (AE37) vaccine. J Clin Oncol 2008;26:3426-33)*. Furthermore, we completed a Phase Ib trial of AE37 in the prevention of cancer recurrence in women who were at high risk of recurrence after undergoing successful primary standard of care breast cancer therapies and were disease free at time of enrollment. Though the study enrolled 300 subjects, the results were not statistically significant due to a complete lack of recurrence in the 160 women with HER2-3+ positive tumors who were treated with Herceptin during primary therapy. Though the trial was not powered to evaluate the prevention of recurrence in subgroups, the trial indicated efficacy in the subset of patients diagnosed with HER2 1+, 2+, and triple negative breast cancer.
Based on the results from this trial, NuGenerex has entered into a collaborative agreement with Merck Sharpe & Dohme B.V. (Merck) and the National Surgical Adjuvant Breast and Prostate Program (NSABP) to conduct a Phase II trial to evaluate the safety and efficacy of AE37 in combination with the anti-PD-1 therapy, KEYTRUDA (pembrolizumab) in patients with metastatic triple-negative breast cancer. The trial is scheduled to begin enrolling patients in the second quarter of 2019.

In addition to the breast cancer program, NuGenerex has conducted a Phase I clinical trial in prostate cancer, enrolling thirty-two HER-2/neu+, castrate-sensitive, and castrate-resistant prostate cancer patients to demonstrate safety and strong immunological response to AE37. We are advancing AE37 for the treatment of prostate cancer through a licensing and research agreement with Shenzhen BioScien Pharmaceuticals Co., Ltd., for which NuGenerex has received a $700,000 upfront payment, with additional future milestone and royalty payments.

In exchange for exclusive rights to AE37 for prostate cancer in China, Shenzhen is financing and conducting the Phase II trials in the European Union and Phase III trials globally under International Commission on Harmonisation (“ICH”) guidelines, with NuGenerex retaining the rights to all clinical data for regulatory submissions and commercialization in the rest of the world outside China.

**Future Plans**

NGIO has been established to not only to advance the NuGenerex Immuno-Oncology core technology, but also to expand our portfolio in the field of immunotherapy and personalized medicine through partnerships and acquisitions. As part of our strategy, we are planning to spin-out NuGenerex Immuno-Oncology as a separate, publicly traded entity to unlock the true value of the Ii-Key technology for our stockholders as it creates a pure play in immunotherapy, which will foster investment and collaboration.

As an initial step in accomplishing the spin-out of NGIO, on February 25, 2019, we issued a stock dividend to our shareholders, whereby our shareholders received 1 share of NGIO for every 4 shares of our stock held on the dividend date. Additionally, Generex has declared a second dividend for GNBT shareholders that will pay 2 shares of NGIO for every 5 shares of GNBT held by the shareholder of record on August 30, 2019; this dividend is scheduled to be paid upon approval from regulators, including FINRA. These stock dividends will enable our stockholders to directly participate in the potentially promising future of NGIO, while creating a large shareholder base with the potential for substantial liquidity immediately upon spin-out to a national exchange, which will provide NGIO with ready access to the capital markets to finance its on-going clinical and regulatory initiatives.

Additionally, we are in discussions with multiple academic institutions and biotechnology development companies to acquire products and technologies to augment the NGIO development pipeline and product portfolio.

We plan to finalize the spin-out process for NGIO in the first quarter of 2020.

**NuGenerex Diagnostics (formerly Hema Diagnostic Systems LLC)**

Our wholly-owned subsidiary, NuGenerex Diagnostics is in the business of developing, manufacturing, and distributing rapid point-of-care in-vitro medical diagnostics for infectious diseases. These are commonly referred as rapid diagnostic tests (“RDTs”). We manufacture and sell RDTs based upon our own proprietary EXPRESS platforms as well as standard “cassette” devices.

Since its founding, NuGenerex Diagnostics has been developing and continues to develop an expanding line of RDTs for infectious disease diagnosis. These include products for human immunodeficiency virus (HIV), tuberculosis, malaria, hepatitis B, hepatitis C, syphilis, and others. These assays are all qualitative in nature and provide a simple positive or negative result directly at the clinical site. They can be used for definitive diagnosis, triage or in combination with other assays depending on which disease is being considered.
Each device incorporates a test strip containing reagent lines (stripes) that have been impregnated with specific antigens or antibodies that detect the target molecules specific to an infectious disease. The test strips are incorporated into our proprietary EXPRESS platforms which are easy-to-use and user-friendly diagnostic devices. There are two EXPRESS platforms; the EXPRESS and the EXPRESS II. The EXPRESS II is an upgraded version of the original EXPRESS and its use involves fewer operator steps, making it of higher clinical utility value. The Express II platform is designed to be used in a broad range of clinical and laboratory medical settings and for direct use by consumers in the home. It is simple to use, with fewer steps of operation than other rapid point-of-care tests. A single drop of blood taken by a simple finger stick is added directly to the device and the assay is activated by placing a pod of buffer solution onto the device. Results can be read in as early as 5 minutes, and no longer than 30 minutes. The accuracy of the Express II Syphilis Treponemal Assay is equal to or better than standard laboratory assays for syphilis antibodies with sensitivities and specificities of over 99%.

We believe that each system delivers its own advantages which enhance the use, application and performance of each diagnostic. This ease of use in the EXPRESS delivery systems is designed to ensure that our RDTs perform efficiently and effectively providing the most accurate and repeatable test results available while, at the same time, minimizing the transference of a potentially infected blood sample. The EXPRESS and cassette diagnostic kits for infectious disease testing are designed for use in resource-poor countries throughout the world, especially in sub-Saharan Africa, where the World Health Organization coordinates population screening for infectious diseases. We recently filled our first international commercial order for 40,000 units of its NGDx -Malaria PF/PV Cassette Test Kit to Imres, BV, a Netherlands-based medical distribution company.

NuGenerex Diagnostics was recently granted a CE Mark Certification under the European Medical Devices Directive (MDD) for its The Express II Syphilis Treponemal Assay, a rapid point-of-care diagnostic assay for the detection of syphilis antibodies in primary and secondary syphilis. The assay is based upon NuGenerex Diagnostic’s innovative patent pending point-of-care diagnostic platform, the Express II. The accuracy of the Express II Syphilis Treponemal Assay is equal to or better than standard laboratory assays for syphilis antibodies with sensitivities and specificities of over 99%.

With the receipt of the CE Mark Certification for its rapid point-of-care Express II Syphilis Treponemal Assay, we believe NuGenerex Diagnostics is well situated to enter into this growing syphilis testing market and will now pursue marketing efforts in Europe and, in parallel, begin plans for the filing of a 510k application with the United States FDA for marketing clearance in the United States. To this end, NuGenerex Diagnostics is fully qualified as a diagnostic test developer and manufacturer under FDA Good Manufacturing Procedures (GMP) and is certified by the International Standards Organization for the manufacture of medical devices under ISO 13485-2016 regulations.

NuGenerex Diagnostics has just begun a new initiative which revolves around the development of quantitative rapid diagnostic assays. These assays allow laboratory personnel and clinicians to assess the absolute amount of specific target molecules in blood or serum samples as opposed to “yes” or “no” results of qualitative RDTs. The first assay to be developed is a multiplex biomarker test for the diagnosis of sepsis and the potential differentiation of infectious sepsis from systemic immune response syndrome (SIRS).

We maintain an FDA registered facility in Miramar, Florida and are certified under both ISO9001 and ISO13485 for the Design, Development, Production and Distribution of the in-vitro devices. Approval of our HIV rapid test has been issued by the United States Agency for International Development (USAID). Additionally, some of our products qualified for and carry the European Union “CE” Mark, which allows us to enter into CE Member countries subject to individual country requirements. Currently, we have two malaria rapid tests approved under World Health Organization (WHO) guidelines. This process allows expedited approval of rapid tests, reducing the current 24 -30-month process down to approximately 6-9 months. WHO approval is necessary for our products to be used in those countries which rely upon the expertise of the WHO, as well as for non-governmental organizations (“NGO”) funding for the purchase of diagnostic products.

We maintain current U.S. Certificates of Exportability that are issued by two FDA divisions-CBER and CDRH. CBER (Center for Biologicals Evaluation and Research) is the FDA regulatory division that oversees infectious disease diagnostic devices, including our HIV, Hepatitis B and Hepatitis C EXPRESS and EXPRESS II kits. The other division, Center for Devices and Radiological Health (CDRH), is responsible for the oversight of other HDS devices which include Tuberculosis, Syphilis, and the remaining product line. Our HDS facility maintains FDA Establishment Registration status and is in accord with GMP (Good Manufacturing Practice) as confirmed by the FDA.
We do not currently have FDA clearance to sell our products in the United States. We intend to submit selected devices to the FDA under a Pre-Market Approval Application (PMA) or through the 510K process. The 510K would require the appropriate regulatory administrative submissions as well as a limited scientific review by the FDA to determine completeness (acceptance and filing reviews); in-depth scientific, regulatory, and Quality System review by appropriate FDA personnel (substantive review); review and recommendation by the appropriate advisory committee (panel review); and final deliberations, documentation, and notification of the FDA decision. The PMA process is more extensive, requiring clinical trials to support the application. We expect to apply to the FDA for clearance of our first RDT (Express II Syphilis Treponemal Assay) for FDA 510K approval in early 2020. We anticipate the FDA process will be completed within 9 months after submission. During this timeline, we will be preparing documentation for additional rapid tests to undergo either the FDA PMA or 510k process.

Future Plans

We plan to use the NuGenerex Diagnostics subsidiary to build a multi-faceted diagnostics business focused on personalized medicine. To that end, we are exploring opportunities in multiplex assays for point-of-care infectious disease testing, pharmacogenomic testing for medication management, and biomarker analysis for personalized cancer treatment, including immunotherapy.

The "New" Generex & The NuGenerex Family of Subsidiary Companies

Through reorganization and acquisition, we are building the family of NuGenerex subsidiary companies to provide end-to-end solutions for physicians and patients. To that end, our subsidiary NuGenerex Distribution Solution has established a network of physicians, ancillary service providers, and patients through a Management Services Organization. As the MSO network currently consists of orthopedic surgeons and podiatrists, we have acquired and/or have agreements to acquire a number of revenue-generating companies that manufacture, market and distribute surgical and wound healing products. The acquisitions include Olaregen, a regenerative medicine company that has recently launched Excellagen wound conforming gel, which is FDA-cleared for the management of 17 wound healing indications, and Regentys, a clinical-stage development company with regenerative medicine technology for the treatment of inflammatory bowel diseases; Pantheon Medical, a manufacturer of patented, FDA-cleared foot & ankle kits with surgical plates, screws, and tools; and MediSource Partners, a licensed distributor of surgical supplies, orthopedic implants, and biologics, including human placental derived tissue products for regenerative medicine applications. Additionally, NDS will be launching a new software as a service (SaaS) business called DME-IQ that enables orthopedic surgeons to manage in-house programs for orthopedic durable medical equipment, including inventory controls, insurance adjudication, and patient billing. Together, under the banner of these subsidiary companies offer a range of products and services to meet the needs of our proprietary distribution channels. Cross selling of products and services will enhance the revenue opportunities for the entire family of NuGenerex subsidiaries.

Our corporate mission is to provide end-to-end solutions for physicians and patients through geographic expansion of our MSO model, diversification of management services offerings, the establishment of an HMO in partnership with Dr. Kiran Patel, and the proposed acquisition of an Accountable Care Organization for complex care.

The NuGenerex family of subsidiary companies offer a broad range of products and services to meet the needs of physicians and patients, including:

- **NuGenerex Distribution Solutions**: MSO, Ancillary Services, DME-IQ, and Surgical Products.

- **NuGenerex Regenerative Medicine**: Olaregen Therapeutix, Regentys.

- **NuGenerex Surgical Products**: Pantheon Medical – Foot & Ankle, LLC and MediSource Partners, LLC.

- **NuGenerex Health**: MSO/HMO with Dr. Kiran Patel: Ancillary health management services for chronic conditions – 65,000 + Patient population with Diabetes; Ophthalmology, Podiatry, Chronic Care Management (CCM).
We established NuGenerex Distribution Solutions in 2018 as the foundational piece in the transformation of the Company into an integrated healthcare holding company that provides end-to-end solutions for physicians and patients. Part of the NDS model includes a physician-owned MSO which is positioned to procure our new products and services as made available. NDS will also continue to provide inventory selection and management, as well as management services for legal and regulatory compliance, accounting, HR, IT and customer support services through the MSO networks.

We serve as the General Partner of the MSO which is 99% owned by over 50 entities. The entities included orthopedic and podiatric surgery centers with over 100 Physicians in 5 states and this MSO structure creates the foundation of our future alternative distribution channel with an open sales channel for products and services. The company plans to expand its geographic footprint nationally where appropriate.

NDS’s corporate mission benefits the medical community by providing cost effective ancillary services that ultimately deliver better outcomes and enhance the doctor-patient relationship. NDS will make available numerous best of class products and services using a patient centric approach that enables ancillary service providers, physicians, and patients to better coordinate healthcare services from diagnosis through treatment and follow-up.

The NuGenerex MSO network has operated in five states and is configuring a rollout which will be compliant and reduce healthcare costs through better outcomes. Those organizations which invest in our new MSO model will be aligned solely with our shareholders and will receive discount codes to procure our products such as Excellagen.

**DME-IQ**

NDS is planning a launch DME-IQ, a novel software as a service (SaaS) solution for physicians to manage in-office distribution of durable medical equipment (DME). DME-IQ supports the development and management of compliant and profitable in-office DME programs. DME-IQ focuses on several key areas which include negotiating on behalf of the physicians with key vendors to decrease the COGS (Cost of Goods Sold), increasing insurance collections by providing oversight of the coding during the billing process, providing the necessary personnel to manage the appeals processes, and ensuring compliance with state and federal regulations.

DME-IQ will automate and provide the orthopedic practices with a proprietary, tablet-based software package that immediately verifies patient benefits and eligibility. This unique system manages DME inventory, collects patient copays and deductibles, and links patient information with the DME products and necessary patient forms all in one easy to use platform.

The DME Market

The US market for DME is large and growing, a result of several factors including the rising prevalence of chronic diseases requiring long-term care, the rapidly growing geriatric population, and the trend toward home healthcare services. Chronic disorders such as diabetes, diabetic foot & pressure ulcers, chronic pain, and cancer that require long-term patient care and postoperative recovery are driving demand for DME. According to a 2018 market report by Grand View Research, Inc., the US DME market is expected to reach $70.8 billion by 2025, growing at a 6.0% CAGR during the forecast period.

DME-IQ tracks and maintains DME inventory to ensure an adequate supply and product mix for orthopedic patient populations, and the system facilitates insurance claim submissions and adjudication to help achieve optimal reimbursements. With the DME-IQ system, the practice gains control of their DME program from an operations and financial perspective, while patients gain access to a wider variety of DME products that are custom fitted for their needs.

The explosion of high deductible insurance plans has resulted in a dramatic increase of patient out-of-pocket payments for care, and the subsequent requirement that physicians spend more time as collection agents rather than doctors. DME-IQ provides practice workflow solutions for DME with custom, tablet-based software that removes the administrative burden from the practice, facilitating patient eligibility review, collection of patient co-pay and deductibles, centralized insurance adjudication, DME product procurement, and other support services that allow physician practices to increase revenue and service quality. The launch of DME-IQ advances the mission of NDS to provide physicians with end-to-end solutions for patient centric care.”
Our majority-owned subsidiary, Olaregen Therapeutix, Inc. is a regenerative medicine company focused on the development, manufacturing and commercialization of products that fill unmet needs in the current wound care market. We aim to provide advanced healing solutions that substantially improve medical outcomes while lowering the overall cost of care. Olaregen’s first product, Excellagen® (wound conforming matrix) is a topically applied product for dermal wounds and other indications. Excellagen is a FDA 510(k) cleared device for a broad array of dermal wounds, including partial and full thickness wounds, pressure ulcers, venous ulcers, diabetic ulcers, chronic vascular ulcers, tunneled/undermined wounds, surgical wounds (donor sites/grafts, post-Mohs surgery, post-laser surgery, podiatric, wound dehiscence), trauma wounds (abrasions, lacerations, second-degree burns and skin tears) and draining wounds, enabling Olaregen to market Excellagen in multiple vertical markets.

The Wound Care Market

The total global wound care industry is expected to reach $22.01 billion by 2022, according to Markets and Markets; the bioactive wound care market (i.e. skin substitute) is valued at $7.8 billion; there are 6.5 million patients in the U.S. with chronic wounds (NIH estimate) in the U.S.

Olaregen Highlights

- Received FDA 510(k) clearance on October 3, 2013, for 17 indications;
- Obtained intellectual properties and global rights of Excellagen® except China, Russia and CIS.
- Received patent on October 10, 2017;
- Has a unique Healthcare Common Procedure Coding System (HCPCS) Code - Q4149
- Clinical data show significant tissue growth and positive wound closure (PDGF)
- Ease of use – No grafting
- Low cost provider with high profit margins;
- Low execution risk (seasoned management team with product launch experience);
- No development risk (over $20 million invested and completed);
- No regulatory risk (FDA cleared).

Excellagen is an advanced, wound care management platform:

- Formulated fibrillar Type I bovine collagen (2.6%)
- High molecular weight
- Viscosity optimized for dripless wound coverage
- Flowable with no staples or sutures required
- Pre-filled, ready to use syringes
- One syringe covers up to 5.0 cm² wound
- Refrigerated storage only with no thawing or mixing
- Treatment at only one-week intervals
- Activates human platelets
- Triggers the release of Platelet-Derived Growth Factor (PDGF)
- Accelerates granulation tissue growth in “non-healing wounds”
Additionally, Excellagen can serve as an Enabling Delivery Platform for pluripotent stem cells, antimicrobial agents, small molecule drugs, DNA-Based Biologies, conditioned cell media and peptides. Olaregen's initial focus will be in advanced wound care including diabetic foot ulcers (DFU), venous leg ulcers and pressure ulcers. Future products focusing on innovative therapies in bone and joint regeneration comprise the current pipeline.

Excellagen History

Olaregen Therapeutix Inc. acquired the intellectual properties and global rights of Excellagen except in China, Russia and CIS, from Taxus Cardium, Inc., and its wholly owned subsidiaries Activation Therapeutics, Inc. and Gene Biotherapeutics, Inc.

In August 2018, Olaregen acquired the IP for total consideration is $4,200,000, broken down as follows: 1) $650,000 upfront payment, 2) $200,000 sales credit for collagen solution, and 3) $3,350,000 payable at 10% of net sales, which is defined as total sales less allowances, including hub fees, sales concessions, co-promote fees, cost of goods sold and other charges.

Regentys Corporation

Our majority-owned subsidiary, Regentys Corporation is a regenerative medicine company developing a tissue engineered therapy for the treatment of ulcerative colitis.

Overview

In January 2019, we acquired a majority interest in Regentys Corporation, a Florida corporation, a development-stage regenerative medicine company. Since its formation in May 2013 as Asana Medical Inc., Regentys has been developing a first-in-class tissue engineered therapies for the treatment of ulcerative colitis and other inflammatory bowel diseases.

Ulcerative Colitis

According to an article that was published in The Lancet on December 23, 2018 named worldwide incidence and prevalence of inflammatory bowel disease in the 21st century: a systematic review of population-based studies. (2018 Dec 23;390(10114):2769-2778), ulcerative colitis (or UC) affects an estimated 3.2 million patients in Europe, the United States and Japan. It is a chronic, inflammatory disease that causes sores or ulcers in the lining of the large intestine (the colon). Immunological in nature, UC is thought to be facilitated by a variety of hereditary, genetic and environmental factors and it is increasingly being diagnosed in more urbanized areas. Symptoms, including urgency, bleeding, and diarrhea, that substantially affect quality of life.

Regentys™ Extracellular Matrix Hydrogel (“ECMH”)

Regentys’ initial product, ECMH™ Rectal Solution, is a first-in-class, non-pharmacologic, non-surgical treatment option for millions of patients suffering from mild to moderate ulcerative colitis. Its product candidate is a powder that is reconstituted with saline and delivered as a liquid via enema. As ECMH reaches body temperature, it gels and coats the mucosal lining of the GI tract.
The core technology is derived from ECM, a safe and effective FDA-approved base now extensively used for surgical applications and wound treatment. ECMH acts as a bio-scaffold, separating the damaged tissue from waste flow, covering ulcerations to limit the inflammatory response, and facilitating a healing environment using endogenous (the body’s own) stem cells.

**Pre-Clinical Results**

Published pre-clinical results in the *Journal of Crohn’s and Colitis* highlight the promise of Regentys technology. Animal data show the ECMH therapy can both alleviate clinical symptoms and facilitate healing in UC patients. Previous pre-clinical ECM animal data for approved products has been shown to have a high correlation with human data.

**Competition**

Currently four biologics are FDA-approved, including top-selling antibody medicines Humira® (adalimumab), Simponi® (golimumab), Remicade® (infliximab) and Entyvio® (vedolizumab), all of which act to suppress the pro-inflammatory protein, TNF-a (Tumor Necrosis Factor Alpha), a leading cause of the proliferation of ulcerative colitis and other forms of IBD. However, even with these options, more than half of all UC patients do not achieve long-term remission. Moreover, 20-30% of non-responsive patients will undergo colon removal surgery in an attempt to remediate the disease.

**Regentys Advantages**

We expect our product to offer a true alternative to patients non-responsive to first line therapies such as 5-ASA. Unresponsive patients will then need to choose among therapies that alter the body’s immune system or pose long term health risks or perhaps both. Regentys’ technology is expected to enable targeted tissue healing but pose none of the health risks of more expensive market-leading biologics that generally suppress the immune system. We expect to provide our therapy at a cost less than other therapies.

**Market**

In 2023, when we expect to receive approval, the projected drug costs for UC alone are expected to exceed $7.5B globally according to a 2017 report by Allied Market Research; including other inflammatory bowel disease indications, the global market is expected to be double the UC market. Based upon the nature of IBD, and the characteristics of Regentys’ technology, management believes variations of Regentys’ core technology will also be effective in treating IBD diseases such as Crohn’s, rectal mucositis, proctitis and anal fissures.

**Intellectual Property**

Regentys in-licensed patents and co-developed its technology platform with the University of Pittsburgh. It now holds patent rights in US and foreign jurisdictions, and has other global filings pending; as well, it has patent applications pending for similar indications predicated on its existing technology in other major global markets.

**Regulatory Path**

The FDA has affirmed our approach to file a 510(k) de novo application on its ECM hydrogel. We have developed a protocol and have engaged a clinical research organization to manage the conduct of its first-in-human clinical trials expected to start in Q2/Q3 2020 in Australia. Additionally, we have engaged consultants to assist in managing the trials and regulatory approval process in Australia, the US and Europe, jurisdictions in which we initially expect to undertake clinical trials and, among other markets, where it will first seek governmental approval to promote and sell medical devices.
Product Development

Since 2013, we have maintained a research and development agreement with the University of Pittsburgh supplemented with personnel from the affiliated McGowan Institute of Regenerative Medicine. In February 2018, Regentys entered into a development agreement with (and has received a co-investment by) Cook Biotech, Inc., a global leader in ECM manufacturing technology (CookBio). Product batches now on hand are expected to be sufficient for additional development and testing. A larger clinical batch with finalized specifications will be generated in the coming months for use in clinical trials. There are alternate providers of development services who can assist with product development activities. Notwithstanding these options, management believes that because of the nature of ongoing development activities, and the reliance upon certain bench and manufacturing processes and ECM product expertise and technology, any interruption in the development relationship with CookBio would subject the Company to substantial expenditures of time and cost to duplicate the product.

Manufacturing

Regentys has an exclusive manufacturing agreement with CookBio for the production of biomaterial and use of its proprietary technology conditioned upon the completion of final product development work. Management has negotiated an agreement with a third-party manufacturer for product components and kitting. We believe that there are alternate sources of these manufacturing and supply services. However, because of the nature of regulation in the medical device industry, and the reliance upon the collection, reporting and management of medical device manufacturing data, a change of manufacturer would substantially impact the time and cost required for clinical product production and regulatory compliance.

Financing

In January 2019, Regentys was acquired by Generex for an aggregate purchase price of $15,000,000, with $400,000 paid in upfront cash up-front and a promissory note of $14,600,000. Installments payable under the note were tied to specific business development objectives and dates. As October 3, 2019, an additional $850,000 was paid for a total of $1,250,000 against the note. Regentys entered into an accommodation agreement dated March 14, 2019 with Generex to provide longer time to pay. On November 25, 2019, the payment due date for the first three installments was extended to December 30, 2019 and extended on January 10, 2020 further to January 31, 2020. A Fourth Payment of $5,000,000 was due on or about February 1, 2020 (which has not been paid) and the final payment of $1,150,000.00 payable on or about February 1, 2021.

Operations

Currently, Regentys employs four full-time contract employee and several part-time consultants. We supplement our business operations by engaging external legal (intellectual property, corporate and health care), accounting and tax professionals. We also have contracted with information services, regulatory and clinical trial companies who make available professionals to manage the information services, regulatory, clinical, and compliance aspects of the business. Upon payment of the interim note, Regentys will formally add two contract employees, additional administrative staff and a third-party provider to assist with employee payroll and benefits as well as undertake clinical trial activities using external support.

NuGenerex Surgical Products

Pantheon Medical – Foot & Ankle, LLC and MediSource Partners, LLC

Pantheon Medical ("Pantheon") is a manufacturer of orthopedic foot & ankle surgery kits that offer physician friendly “all-in-one,” integrated surgical kits that include plates, screws, and tools required for orthopedic surgeons and podiatrists conducting foot and ankle surgeries.

MediSource Partners, LLC ("MediSource") is a 10-year old private company that is an FDA registered distributor of surgical, medical, and biologic supplies, with over 25 vendor contracts for nationwide distribution of implants and devices for spine, hips, knees, foot, ankle, hand, and wrist surgeries. Additional product lines include biologics (blood, bone, tissue, stem cells), durable medical equipment, and soft goods. We maintain partnerships and contracts with hospital systems for ordering, billing and inventory management.
The acquisitions of Pantheon and MediSource were finalized on August 1, 2019, immediately subsequent to the end of our 2019 fiscal year. MediSource Partners has contracts with over 25 vendors (including Pantheon Medical) for distribution of:

- Implants and devices.
- Biologics (blood, bone, tissue, and stem cells).
- Durable medical equipment.
- Soft Goods.
- Kits to process bone marrow aspirates and platelet rich plasma biologics.

**Historical Background**

MediSource Partners was founded in 2009 and designed to be unique amongst its competitors by operating as a service-focused, “one stop shop” for the healthcare professionals it serves. With over 25,000 products in its catalogue, including thirteen (13) lines dedicated to spine, MediSource prides itself on its ability to service everything from small private practices across several disciplines, to entire hospital systems. The large and broad-based inventory allows our client physicians to “customize” their operating environment by selecting and implementing the hardware, biologics, soft goods and ancillary tools they feel most confident in and comfortable with. In addition, the “one stop shop” model reduces the burden placed on support staff tasked with managing multiple reps from multiple vendors and shortens the distribution chain to reduce costs and potential redundancies. The success of this model is demonstrated in MediSource’s ability to offer this client-focused, low-impact service at a pricing matrix often below even standard GPO pricing, thus increasing client profitability and productivity.

Pantheon Medical was founded in 2014 to build a manufacturing company with proprietary product lines that offer convenience and cost effectiveness to physicians. Pantheon is contracted with MediSource Partners for nationwide distribution of its proprietary “All-in-One” Foot & Ankle Surgery Kit.

**Product Development**

Pantheon Medical – Foot & Ankle, LLC is developing proprietary surgical systems to expand the product line. Over the next three years Pantheon will be developing three new product lines for submission to the FDA for 510K clearance, including Cannulated Screws, a Hammertoe System and Surgical Staples. Additionally, MediSource Partners will distribute a line of regenerative medicine products under development by an affiliated organization licensed for the production of biologics, including umbilical cord blood and Wharton’s Jelly (rich sources of stem cells), mesenchymal stem cells, and human placental derived tissue factors, primarily exosomes.

The acquisitions of Pantheon and MediSource Partners expands the commercial product portfolio of Generex into the surgical field, adding revenues and profits with their current product line and significant upside opportunities for new FDA-approved product introductions over the next several years. The MSO partners in NuGenerex Distribution Solutions, many of whom are orthopedic surgeons and podiatrists, will immediately benefit from Pantheon’s Foot & Ankle surgery kit.

**NuGenerex Health, LLC**

In addition to our efforts in orthopedic medicine, we are currently in the process of setting up NuGenerex Health MSO to provide ancillary health services in partnership with Arizona Endocrinology Center and Paradise Valley Family Medicine, two major physician practices that care for a population of ~65,000 patients, approximately 25,000 of whom are insulin dependent diabetics with chronic care needs. With an initial focus on the management of complex diabetes patients, NuGenerex Health will offer ophthalmology, podiatry, chronic care management (CCM) services to provide patients with integrated, concierge care to improve outcomes and reduce costs. NuGenerex Health will employ ophthalmologists, podiatrists, and medical staff to provide ancillary health services for chronic care diabetes patients in support of the endocrinology and family medicine practices. By bringing the specialty ancillary care directly to the patients who regularly visit the clinic, we anticipate that NuGenerex Health will provide an integrated, collaborative care model to not only enhance patient wellbeing, but also to comply with CMS guidelines for diabetes and chronic care management that can lead to 5-star ratings and increased reimbursements.
Ophthalmology

Regular eye exams for persons diagnosed with diabetes mellitus are important for detecting potentially treatable vision loss. Monitoring, surveillance, and evaluation of visual health are widely recognized as prerequisites for effective, accessible, and high-quality individual and population-based health services.

Medicare Part B (Medical Insurance) covers preventive and diagnostic eye exams as part of a comprehensive diabetes care plan, with reimbursements averaging $215 per patient for standard eye exam with accompanying tests for glaucoma and macular degeneration.

Podiatry

According to an article that was published in Therapeutics Advances Endocrinology & Metabolism, *Financial burden of diabetic foot ulcers to world: a progressive topic to discuss always* (2018 Jan; 9(1): 29–31), as diabetic foot ulcers (DFUs) are the leading cause of non-traumatic lower extremity amputation costing an estimated $13 billion annually, CMS promotes preventive and diagnostic foot exams by a podiatrist, with reimbursement rates averaging $175 for a new patient evaluation, and $150 for follow up. Under the CMS guidelines, patients are eligible for diabetic foot exams every six months.

Chronic Care Management (CCM)

According to the CDC an estimated 117 million adults have one or more chronic health conditions, and 2/3 of Medicare patients have 2 or more chronic conditions. The Centers for Medicare & Medicaid Services (CMS) made benefit payments of $583 billion in 2018, with chronic care patients accounting for 99% of expenditures. Recognizing chronic care management (CCM) as a critical component of health care, CMS has established reimbursement codes to promote adoption in the marketplace, including significant improvements in 2017 that increased payment amounts and introduced new billing codes. NuGenerex Health is designed to provide comprehensive ancillary services to fill the current gaps in care that lead to significant morbidity and astronomical costs of diabetes.

Once the model is established for the diabetes population in Arizona, NuGenerex Health plans to expand to other states.

NuGenerex Health HMO

We are in the process of building the final link in our corporate mission to provide physicians, hospitals, and all healthcare providers with an end-to-end solution for patient-centric care from rapid diagnosis through delivery of personalized therapies, streamlining care processes, minimizing expenses, and delivering transparency for payers.

Generex intends to establish NuGenerex Health a multi-specialty Management Services Organization (MSO) that will serve as in-network providers for a health maintenance organization (HMO) that provides healthcare services and disease management solutions for patients living with chronic medical conditions. NuGenerex Health will serve patients with Chronic Special Needs Plans (C-SNP) and Dual-Eligible Special Needs Plans under Medicare Advantage and Medicare Part B and Part D. In doing this, Generex intends to partner with an experienced HMO developer. Following the roadmap established by this partner in building some of the most successful HMO companies in recent history, NuGenerex plans to generate significant membership growth by developing patient-centric engagement programs and building on our strong provider relationships. The HMO infrastructure will be managed by Beacon Health Solutions, which has provided back-end services for HMOs since 2009.

Contemplated Product Positioning and Plan Design

**Medicare Advantage Prescription Drug Plan (MAPD) HMO** for individuals who have both Medicare Part A and Part B. This plan caters to individuals that prefer an all-inclusive product that covers Part C, Part D, and additional supplemental benefits at a low plan premium amount.
Chronic Special Needs Plan (CSNP) HMO for individuals in addition to having Medicare Part A and Part B are faced with the burden of living with diabetes or a cardiovascular disorder. This plan is offered to individuals that prefer an all-inclusive product that covers Part C, Part D, and additional supplemental benefits at a low plan premium amount.

Dual Eligible Special Needs Plan (DSNP) HMO for individuals that have both Medicare Part A and Part B and medical assistance through their state of residence. This plan is offered to individuals that prefer an all-inclusive product that covers Part C, Part D, and additional supplemental benefits with no monthly plan premium.

NuGenerex Health D-SNP HMO Full will cover all Medicare-covered benefits at zero cost-sharing. In addition to the base supplemental products, the plan also offers routine foot care, and transportation.

Government Regulation

Regulatory Considerations for Generex

Our research and development activities and the manufacturing and marketing of our medical device, biologic, and pharmaceutical products are subject to extensive regulation by the FDA in the United States, Health Canada in Canada, the EMEA in Europe, and comparable designated regulatory authorities in other countries. Among other things, extensive regulations require us to satisfy numerous conditions before we can bring products to market. While these regulations apply to all competitors in our industry, having a technology that is unique and novel extends the requisite review period by the various divisions within the FDA and other regulators. Also, other companies in our industry are not limited primarily to products that still need to be approved by government regulators, as we are now.

If we do not obtain and maintain requisite regulatory approvals, our business will be substantially harmed. In many cases, we expect that extant and prospective development partners will participate in the regulatory approval process. The following discussion summarizes the principal features of food and drug regulation in the United States and other countries as they affect our business.

United States

All aspects of our research, development and foreseeable commercial activities relating to medical device, biologic, and pharmaceutical products are subject to extensive regulation by the FDA and other regulatory authorities in the United States. United States federal and state statutes and regulations govern, among other things, the testing, manufacturing, safety, efficacy, labeling, storage, record keeping, approval, advertising and promotion of pharmaceutical products. The regulatory approval process, including clinical trials, usually takes several years and requires the expenditure of substantial resources. If regulatory approval of a product is granted, the approval may include significant limitations on the uses for which the product may be marketed.

The steps required before a medical device, biologic or pharmaceutical product may be marketed in the United States include:

- Conducting appropriate pre-clinical laboratory evaluations, including animal studies, in compliance with the FDA’s Good Laboratory Practice requirements, to assess the potential safety and efficacy of the product, and to characterize and document the product’s chemistry, manufacturing controls, formulation and stability;

- Submitting the results of these evaluations and tests to the FDA, along with manufacturing information, analytical data, and protocols for clinical studies, in an IND Application, and receiving approval from the FDA that the clinical studies proposed under the IND are allowed to proceed;

- Obtaining approval of Institutional Review Boards (“IRBs”) to administer the product to humans in clinical studies; conducting adequate and well-controlled human clinical trials in compliance with the FDA’s Good Clinical Practice requirements that establish the safety and efficacy of the product candidate for the intended use;

- Developing manufacturing processes which conform to the FDA’s current Good Manufacturing Practices, or cGMPs, as confirmed by FDA inspection;

- Submitting to the FDA the results of pre-clinical studies, clinical studies, and adequate data on chemistry, manufacturing and control information to ensure reproducible product quality batch after batch, in an NDA, a 510(K), PMA or Biologics License Application (“BLA”); and

- Obtaining FDA approval of the NDA, BLA, PMA, or 510(K) including inspection and approval of the product manufacturing facility as compliant with cGMP requirements, prior to any commercial sale or shipment of the pharmaceutical agent.
Quality and pre-clinical tests and studies include: laboratory evaluation of Drug Substance and Drug Product chemistry, formulation/manufacturing, and stability profiling, as well as a large number of animal studies to assess the potential safety and efficacy of each product. The results of the quality and pre-clinical tests/studies, in addition to any non-clinical pharmacology, are submitted to the FDA along with the initial clinical study protocol (see descriptive of process below) as part of the initial IND and are reviewed by the FDA before the commencement of human clinical trials. Unless the FDA objects to it, the IND becomes effective 30 days following its receipt by the FDA. The FDA reviews all protocols, protocol amendments, adverse event reports, study reports, and annual reports in connection with a new pharmacological product.

The IND for our oral insulin formulation became effective in November 1998. Amendments are also subsequently filed as new Clinical Studies and their corresponding Study Protocols are proposed. In July 2007, we received a no objection clearance to initiate our Phase III study protocol for our oral insulin product.

The Physician’s Investigational New Drug Application for the Phase 1 and Phase II trial of AE37, NGIO’s synthetic peptide vaccine designed to stimulate a potent and specific immune response against tumors expressing the HER-2/neu oncogene, in patients with stage II HER-2/neu positive breast cancer became effective in March 2006.

The Investigational New Drug Application for the Phase II trial of AE37 in combination with pembrolizumab (Merck’s Keytruda) for treatment of triple negative breast cancer became effective in December 2018, and the trial has begun enrolling patients.

Clinical trials involve the administration of a new drug to humans under the supervision of qualified investigators. The protocols for the trials must be submitted to the FDA as part of the IND. Also, each clinical trial must be approved and conducted under the auspices of an IRB, which considers, among other things, ethical factors, the safety of human subjects, and the possible liability of the institution conducting the clinical trials.

Clinical trials are typically conducted in three sequential phases (Phase I, Phase II, and Phase III), but the phases may overlap. Phase I clinical trials test the drug on healthy human subjects for safety and other aspects, but usually not effectiveness. Phase II clinical trials are conducted in a limited patient population to gather evidence about the efficacy of the drug for specific purposes, to determine dosage tolerance and optimal dosages, and to identify possible adverse effects and safety risks. When a compound has shown evidence of efficacy and acceptable safety in Phase II evaluations, Phase III clinical trials are undertaken to evaluate and confirm clinical efficacy and to test for safety in an expanded patient population at clinical trial sites in different geographical locations. The FDA and other regulatory authorities require that the safety and efficacy of therapeutic product candidates be supported through at least two adequate and well-controlled Phase III clinical trials (known as “Pivotal Trials”). The successful completion of Phase III clinical trials is a mandatory step in the approval process for the manufacturing, marketing, and sale of products.

In the United States, the results of quality, pre-clinical studies and clinical trials, if successful, are submitted to the FDA in an NDA to seek approval to market and commercialize the drug product for a specified use. The NDA is far more specific than the IND and must also include proposed labeling and detailed technical sections based on the data collected. The FDA is governed by the Prescription Drug User Fee Act regarding response time to the application, which is generally 12 months (and shorter for a priority application). It may deny a NDA if it believes that applicable regulatory criteria are not satisfied. The FDA also may require additional clarifications on the existing application or even additional testing for safety and efficacy of the drug. We cannot be sure that any of our proposed products will receive FDA approval. The multi-tiered approval process means that our products could fail to advance to subsequent steps without the requisite data, studies, and FDA approval along the way. Even if approved by the FDA, our products and the facilities used to manufacture our products will remain subject to review and periodic inspection by the FDA.
To supply drug products for use in the United States, foreign and domestic manufacturing facilities must be registered with, and be approved by, the FDA. Manufacturing facilities must also comply with the FDA’s cGMPs, and such facilities are subject to periodic inspection by the FDA. Products manufactured outside the United States are inspected by regulatory authorities in those countries under agreements with the FDA. To comply with cGMPs, manufacturers must expend substantial funds, time and effort in the area of production and quality control. The FDA stringently applies its regulatory standards for manufacturing. Discovery of previously unknown problems with respect to a product, manufacturer or facility may result in consequences with commercial significance. These include restrictions on the product, manufacturer or facility, suspensions of regulatory approvals, operating restrictions, delays in obtaining new product approvals, withdrawals of the product from the market, product recalls, fines, injunctions and criminal prosecution.

One final hurdle that is closely associated with the cGMP inspections is the pre-approval inspection that the FDA carries out prior to the issuance of a marketing license. FDA inspectors combine cGMP compliance with a review of research and development documents that were used in the formal NDA. A close inspection of historic data is reviewed to confirm data and to demonstrate that a company has carried out the activities as presented in the NDA. This is generally a long inspection and requires a team of individuals from the Company to “host” the FDA inspector(s).

**Foreign Countries**

Before we are permitted to market any of our products outside of the United States, those products will be subject to regulatory approval by foreign government agencies similar to the FDA. These requirements vary widely from country to country. Generally, however, no action can be taken to market any drug product in a country until an appropriate application has been submitted by a sponsor and approved by the regulatory authorities in that country. Again, similar to the FDA, each country will mandate a specific financial consideration for the Marketing Application dossiers being submitted. Although an important consideration, FDA approval does not assure approval by other regulatory authorities. The current approval process varies from country to country, and the time spent in gaining approval varies from that required for FDA approval. We have received a number of foreign regulatory approval for the first generation Oral-lyn buccal insulin and over-the-counter products in the past, however, Oral-Lyn was never launched, and we are not manufacturing, marketing, nor distributing products in these regions based upon these approvals.

In May 2019, NuGenerex Diagnostics filled an international order for 40,000 units of its malarial diagnostic product, The NGDx -Malaria PF/PV Cassette Test Kit to Imres, BV, a Netherlands-based medical distribution company. The kits were part of a World Health Organization contract. That contract is fulfilled, and the contract has expired.

We have relocated our headquarters from Canada to the United States, but we maintain our Canadian entity, Generex Pharmaceuticals, Inc. This entity contains all the intellectual property for the entire history of our Oral-Lyn diabetic products and patents for buccal delivery. There are no live operations in Canada, but we continue with an office. Also, temporarily, our Banking Operations are housed at the Royal Bank of Canada (RBC) and will be replaced by a USA based public company treasury platform with JP Morgan Chase.

We have a few international initiatives that we continue to pursue in regard to development of new drugs, however, no international clinical trials are currently being conducted. Moving forward, we will pursue international development of promising drug candidates, with the goal of out-licensing those products to local companies or to international pharmaceutical companies for marketing and distribution in those countries, particularly in the European Union and Japan represent major markets for pharmaceutical and diagnostic products. To that end, we are in frequent contact with international countries with interests in licensing agreements with us on some of our products. Currently we have a licensing agreement with Shen Zhen BioScien for the rights to our cancer vaccine AE37 for the treatment of prostate cancer in China.

**NGDx Regulatory Considerations**

The manufacturing and marketing of our existing and proposed diagnostic products are regulated by the FDA and comparable regulatory bodies in other countries. Our products are also regulated by, subject to approval by, or must meet standards set by, certain non-governmental organizations involved in the purchase and distribution of products like ours. These regulations and standards govern almost all aspects of development, production and marketing, including product testing, authorizations to market, labeling, promotion, manufacturing and record keeping.
Commercialization of medical devices in the European Union requires meeting the regulatory guidelines of the European Medical Devices Directive (MDD) and fulfillment of those requirements allows a device to carry the “CE-Mark” as verification of its diagnostic authenticity.

FDA-regulated products require some form of action by that agency before they can be marketed in the United States, and, after approval or clearance, we must continue to comply with other FDA requirements applicable to marketed products, e.g. Quality Systems (for medical devices). Failure to comply with the FDA’s requirements can lead to significant penalties, both before and after approval or clearance.

There are two review procedures by which medical devices can receive FDA clearance or approval. Some products may qualify for clearance under Section 510(k) of the Federal Food, Drug and Cosmetic Act, in which the manufacturer provides a pre-market notification that it intends to begin marketing the product, and shows that the product is substantially equivalent to another legally marketed product (i.e., that it has the same intended use and is as safe and effective as a legally marketed device and does not raise different questions of safety and effectiveness). In some cases, the submission must include data from human clinical studies. Marketing may commence when the FDA issues a clearance letter finding such substantial equivalence.

If the medical device does not qualify for the 510(k) procedure (either because it is not substantially equivalent to a legally marketed device or because it is required by statute and the FDA’s implementing regulations have an approved application), the FDA must approve a Pre-Marketing Application ("PMA") before marketing can begin. PMA’s must demonstrate, among other matters, that the medical device provides a reasonable assurance of safety and effectiveness. A PMA application is typically a complex submission, including the results of non-clinical and clinical studies. Preparing a PMA application is a much more expensive, detailed and time-consuming process as compared with a 510(K) pre-market notification.

In addition, the FDA regulates the export of medical devices that have not been cleared for marketing in the United States. The Federal Food, Drug and Cosmetic Act contains general requirements for any medical device that may not be sold in the United States and is intended for export. Specifically, a medical device intended for export is not deemed to be adulterated or misbranded if the product: (1) complies with the specifications of the foreign purchaser; (2) is not in conflict with the laws of the country to which it is intended for export; (3) is prominently labeled on the outside of the shipping package that it is intended for export; and (4) is not sold or offered for sale in the United States. However, the Federal Food, Drug and Cosmetic Act does permit the export of devices to any country in the world, if the device complies with the laws of the importing country and has valid marketing authorization in one of several "listed" countries under the theory that these listed countries have sophisticated mechanisms for the review of medical devices for safety and effectiveness.

We are also subject to regulations in foreign countries governing products, human clinical trials and marketing, and may need to obtain approval or evaluations by international public health agencies, such as the World Health Organization, in order to sell diagnostic products in certain countries. Approval processes vary from country to country, and the length of time required for approval or to obtain other clearances may in some cases be longer than that required for United States governmental approvals. On the other hand, the fact that our HIV diagnostic tests are of value in the AIDS epidemic may lead to some government process being expedited. The extent of potentially adverse governmental regulation affecting NGDx that might arise from future legislative or administrative action cannot be predicted.

Our products may rely on international regulatory approvals for sale into markets outside of the USA, and, domestically, our devices would require FDA clearance and in some cases, WHO Listings.

We intend to focus on both the domestic and international regulatory approvals.
Domestically, we intend to submit our devices to the FDA under a PMA or through the 510K process. The 510K would require the appropriate regulatory administrative submissions as well as a limited scientific review by the FDA to determine completeness (acceptance and filing reviews); in-depth scientific, regulatory, and Quality System review by appropriate FDA personnel (substantive review); review and recommendation by the appropriate advisory committee (panel review); and final deliberations, documentation, and notification of the FDA decision. The PMA process is more extensive, requiring clinical trials to support the application. We expect to apply to FDA for approval of our first RDT to be submitted to the FDA for 510K approval within the next 3 months. We anticipate the FDA process will be completed within 12-18 months after submission.

Internationally, we intend on submitting our EXPRESS devices and cassettes to the WHO procurement listing process which requires a full regulatory and quality documentation dossier, produced and compiled by us. WHO process requires laboratory testing and evaluation and then may require clinical trials for public deployment and documentation throughout the whole process.

Once the WHO process is complete and documented, there is a submission into the Global Fund, which is a partnership between governments, civil society, the private sector and people affected by infectious diseases specifically HIV/AIDS, tuberculosis, and malaria.

The Global Fund raises and invests nearly $4 billion a year to support programs run by local experts in countries that are most in need.

We intend to submit selected cassettes and EXPRESS RTDs to the FDA, WHO and the Global Fund for regulatory review.

Currently, both our cassette malaria pF and malaria pF/pV have been listed under the WHO procurement process.

**Regulatory considerations for the NuGenerex Family of Companies**

Our business is subject to highly complex United States federal and state regulations that may impact our ability to fully implement our strategic plans and initiatives. We are required to obtain and hold licenses and permits and to comply with the regulatory requirements of various governmental agencies. If we fail to comply with such regulatory requirements or if allegations are made that we fail to comply with such regulations, the economic viability of our Company may be adversely affected.

**FDA Regulations**

The manufacturers and suppliers of the products we market are subject to extensive regulation by the FDA, other federal governmental agencies, and state authorities. These laws and regulations govern the approval of, clearance of, or license to commercialize medical devices (such as Orthopedic Implants), biologics, and drugs. This includes compliance with the standards and requirements related to the design, testing, manufacture, labeling, promotion, and sales of the products, record keeping requirements, tracking of devices, reporting of potential product defects and adverse events, conduct of corrections, and recalls and other matters. As a distributor, marketer, and now, an FDA-registered medical device specification developer and repackager/relabeler of such FDA-regulated products, we are subject to independent requirements to register and list certain products. We may be required to obtain state licensure or certifications and we may be subject to inspections, in addition to complying with requirements that apply to the manufacturers of the products we market. Failure to comply with those applicable requirements could result in a wide variety of enforcement actions, ranging from warning letters to more severe sanctions such as fines, civil penalties, operating restrictions, injunctions, and criminal prosecutions. To support our biologics product lines, we are a registered establishment with the FDA for the storage and distribution of human cells, tissues, and cellular and tissue-based products (HCT/Ps).

**Healthcare Laws and Regulations**

We are required to comply with federal and state healthcare laws and regulations. Such healthcare fraud and abuse laws apply to the relationships that we and our distributors have with healthcare professionals and entities, such as physicians and hospitals. U.S. federal health care laws including laws related to false claims, health care fraud and abuse, physician self-referrals, and anti-kickbacks apply when we or are customers submit claims for items or services that are reimbursed under federally-funded health care programs (such as Medicare or Medicaid). In comparable fashion, state health care laws of a similar nature apply to state-funded health care programs and may also apply with private third-party payors. The requirements of these laws are complex and subject to varying interpretations. If we fail to comply with these laws, we could be subject to federal or state government investigations, substantial fines, exclusion from future participation in government healthcare programs, and civil or criminal sanctions. Such sanctions and damages could adversely affect the economic viability of our Company.
We instituted a company-wide compliance program for all employees, vendors, and contractors. During 2018, we hired a compliance officer who is responsible for developing compliance programs, reviewing our policies, overseeing adherence to those policies, and advising management on possible risks. Our policies related to this realm include general ethical business practices as well as specific operating policies and training to ensure compliance with relevant and applicable healthcare laws and regulations that include the laws referenced above in addition to other applicable laws, such as Health Insurance Portability and Accountability Act of 1996, as amended and the Physician Payments Sunshine Act.

**NuGenerex Distribution Solutions and MSO Regulatory Considerations**

NuGenerex Distribution Solutions operates under strict federal and state guidelines across several of the product and service lines offered by us. In particular, the NuGenerex MSO is regulated at the state level, where the physician-owned management services organization (MSO) has been deemed by our healthcare attorneys to be legally compliant in 27 states. The NuGenerex MSO operates in compliance with all laws and regulations as detailed below:

We believe that the following statements support an assertion that our ownership structure and the proposed arrangement as a whole is structured to comply with some of the recommendations set forth by the OIG in the Bulletin, the Special Fraud Alert and other guidance:

- Each investor will have made a financial investment in a bona fide business venture organized for the primary purpose of performing certain contracted services for the benefit of a Contracted Ancillary Provider;

- If an investor receives any distributions, such distributions will be made solely on the basis of such investor’s proportionate ownership of the Company, and not on the basis of referrals by any individual or class of investors or the revenues generated by referrals from such investor;

- Subscriptions for ownership of the Company will not be accepted or rejected on the basis of expected volume of referrals or amount of business otherwise generated for the Company or indirectly a Contracted Ancillary Provider by the subscriber; and

- There is no requirement that an investor make referrals to, or otherwise generate business for, a Contracted Ancillary Provider, NuGenerex or the Company as a condition of participation in the Company.

**Some of the most applicable health care related laws, rules, and regulations to the company are, including but not limited to, the following:**

**Stark Laws**

The types of financial arrangements between a physician and an entity that trigger the self-referral prohibitions of the Stark Law are broad and include direct and indirect ownership and investment interests and direct and indirect compensation arrangements. We do not believe that the Stark Law will be applicable to us or any Physician Member because neither we nor any Physician Member intends to make any referral to a Contracted Ancillary Provider (as hereinafter defined) for the furnishing of any ancillary healthcare services for which payment may be made under the Medicare or Medicaid programs.

We do not believe the Subcontracted Services Agreement creates a direct financial relationship between the Physician Members (or their professional organizations) and a Contracted Ancillary Provider because (i) the Vendor Services Agreement is between NuGenerex on the one hand, and a Contracted Ancillary Provider on the other and (ii) the Subcontracted Services Agreement is between us on the one hand and NuGenerex on the other. Further, we believe that the Subcontracted Services Agreement, as structured, complies with the Stark Law exception for personal services should any enforcement authorities or agencies take the position that the Physician Members have a direct financial relationship with a Contracted Ancillary Provider. Further, we believe the arrangements meet the Stark Law exception for personal services.
The Anti-Kickback Statute

The federal anti-kickback statute (the “Anti-Kickback Statute”) makes it a felony to knowingly and willfully offer, pay, solicit or receive any remuneration, directly or indirectly, to induce, or in exchange for, referrals of business reimbursed under federal health care programs, including Medicare and Medicaid.

We do not believe that the Anti-Kickback Statute will be applicable to us or any Physician Member because neither we nor any Physician Member intends to make any referral of business to a Contracted Ancillary Provider reimbursed under any federal healthcare programs, including Medicare and Medicaid.

False Claims Act

The False Claims Act is a civil statute used as a primary tool for recovering monies from health care entities who have committed fraud against the federal government.

We do not intend to receive any compensation that is related to the referral of patients covered by any federal healthcare program, including Medicare and Medicaid. We also plan to take precautions to avoid any activity that could be considered civil or criminal false claims.

Civil Monetary Penalty Statute

The Civil Monetary Penalty Statute prohibits a health care provider from knowingly making a payment, directly or indirectly, to a physician as an inducement to reduce or limit services to Medicare or Medicaid patients under the physician’s direct care. We do not believe that the Civil Monetary Penalty Statute will be applicable to us or any Physician Member because neither we nor any Physician Member intends to make any referral of business to a Contracted Ancillary Provider reimbursed under the Medicare or Medicaid programs.

NuGenerex Distribution Solutions Other Regulatory Considerations

Texas Patient Non-Solicitation Act

The Texas Patient Non-Solicitation Act prohibits anyone from intentionally or knowingly offering to pay or agreeing to accept any remuneration (directly or indirectly, overtly or covertly, or in cash or in kind) to or from anyone else for securing or soliciting patients for or from a person licensed, certified or registered by a Texas healthcare regulatory agency. Unlike the Stark Law and the Anti-Kickback Statute, which only apply to payments by federal government programs, the Texas Patient Non-Solicitation Act applies to all payers, including private insurance companies. As a means of balancing this broad application, however, the Texas Patient Non-Solicitation Act provides that compliance with the Anti-Kickback Statute constitutes compliance with the Texas Patient Non-Solicitation Act.

Because the Texas statute provides that compliance with the Anti-Kickback Statute constitutes compliance with the Texas Patient Non-Solicitation Act, the analysis of the Company under the Texas Patient Non-Solicitation Act is essentially the same as the analysis under the Anti-Kickback Statute.

Texas Fee Splitting

The Texas Medical Practice Act prohibits fee-splitting and other unprofessional conduct. Any physician who is found to have violated the Texas Medical Practice Act may be subject to criminal sanctions or loss of such physician’s license to practice medicine. Prospective physician investors are advised to consult their personal counsel regarding the potential impact of this statute on their individual circumstances.
Texas Commercial Bribery Statute

The Texas Commercial Bribery Statute makes it a criminal violation for anyone, including a physician, acting without the consent of their patient, to accept any benefit from another person or entity to influence such physician’s conduct toward the patient. A violation of the commercial bribery law could result in a physician’s loss of license to practice medicine in Texas.

The risk of violation of both the commercial bribery and the non-solicitation of patient’s statutes will be significantly reduced if the patient of a Physician Member, prior to receiving services from a Contracted Ancillary Provider, is informed of the Physician Member’s ownership in the Company and its indirect financial relationship with a Contracted Ancillary Provider.

Marketing and Distribution

Generex Historical Business Marketing & Distribution

Historically, we had marketing agreements with international distribution companies for distribution of Oral-Lyn in approved territories. Those agreements are no longer in effect.

Currently, as clinical stage development companies, neither NGIO nor NuGenerex Therapeutics (Oral-Lyn and RapidMist buccal delivery system) markets or distributes any products.

NGDx Marketing & Distribution

Sales of the NuGenerex Diagnostics EXPRESS line of diagnostic kits for infectious diseases is dependent on regulatory approvals issued by such agencies as the WHO, FDA and registration with the Global Fund. These approvals are a key element in the sales and marketing effort on an international basis. We will work with these organizations as well as governmental agencies in target countries and commercial companies.

WHO-Listed

Following the successful fulfillment of previous Partnership for Supply Chain Management (“PFSCM”) and WHO shipments, NGDx continues to participate in requests for proposals from PFSCM for our currently WHO-approved NGDx Malaria test. All of the NGDx Malaria RDT’s are on the WHO procurement list.

We will also participate in the newly designed and recently announced WHO Pre-Qualification Program for Malaria RDTs. We intend to present the new Malaria EXPRESS II devices for Pf, Pf/Pv and Pf/Pan for this Pre-Qualification Program.

NGDx EXPRESS II - Syphilis

In January 2019, NGDx received CE Marking Certification for its rapid point-of-care Express II Syphilis Treponemal Assay from the European Union. We are currently seeking a distribution partner to launch the test in Europe in the fourth quarter of 2019.

Olaregen Marketing & Distribution

Olaregen has established a team of internal sales and marketing professionals who oversee the marketing, sales & distribution for Excellagen. Currently the product may be sold immediately in the United States. Olaregen plans to focus its efforts on selling to specialized ambulatory wound care centers, surgeons, dermatologists, and in phase II nursing homes. In these institutions the reimbursement rates are nearly double those at hospitals for the same medical procedures. This is an important market since approximately ~80-90% of patients that qualify for using Excellagen are treated in these centers and nursing homes. Excellagen can be used for nearly all wound indications but management plans to focus on those that are treated outside of a hospital setting including Diabetic, Venous and Arterial ulcers initially as well as Post Moth’s surgery, Operating Rooms (“OR”) and Ambulatory Care Surgeries with all these indications being extremely prevalent, most significantly amongst the elderly.
Olaregen is signing intra-company agreements with partner companies in the NuGenerex family of companies for distribution of Excellagen through both our proprietary market channels, and through our national distribution footprint.

Manufacturing

**Generex Historical Business**

**NuGenerex Immuno-Oncology Manufacturing**

NuGenerex Immuno-Oncology manufactures AE37 immunotherapeutic vaccine, a nineteen amino-acid peptide referred to as AE37 (II-Key/HER2 776-790 hybrid) under contract with PolyPeptide Laboratories, San Diego, CA. The suspended substance (lyophilized peptide suspended in sterile, normal saline) is formulated into 2 mL glass vials containing 500 micrograms of peptide in 0.5 mL of 0.45% saline. All manufacturing of AE37 is conducted under FDA cGMP compliance.

We have produced, packaged and shipped AE37 for the upcoming clinical trial of AE37 in combination with pembrolizumab (Merck’s Keytruda) for the treatment of triple negative breast cancer.

The Company will require additional manufacturing for future trials with AE37 or any other II-Key hybrid immunotherapeutic peptide for the treatment of cancer, and plans to use PolyPeptide Laboratories for future production work. In the event that PolyPeptide Laboratories is unable to meet the manufacturing requirements of NuGenerex Immuno-Oncology, there are multiple contract manufacturers that can provide cGMP peptide synthesis, purification, and packaging services.

**NGDx Manufacturing**

NGDx manufactures its RTD devices in our Miramar, Florida facility. Based on order size, delivery requirements and current orders in process, the Miramar facility can manufacture up to 1 million RTD devices, all of which are currently hand assembled. We have long-standing relationships with subcontractors to handle additional production requirements.

Cassette production is conducted through subcontractors in India and China. Each site operates under cGMP as well as being compliant with ISO 9001 and ISO13485. All NGDx cassettes are included in our U.S. Certificate of Exportability and European Union CE Mark registrations. All of our cassette malaria tests are approved by the WHO.

We have established Quality and Assembly Agreements, as well as confidentiality agreements with our subcontractors. All are subject to our inspection at a moment’s notice.

The quality of final assembly of each of our products is maintained under the strict guidelines of our internal Quality System, which forms the basis for our ISO13485 rating.

Full quality oversight is mandatory and final batch release testing is conducted on each lot of products assembled prior to shipment release.

With full automation, we anticipate producing up to 10 million EXPRESS devices annually. Expanded production would allow for additional expansion beyond this volume. Additionally, we anticipate that subcontractors would provide approximately 60 million cassette tests per year.

**Olaregen Manufacturing**

Olaregen contracts with a third party specialty manufacturer in the United Kingdom to manufacture Excellagen. Excellagen is an aseptically manufactured, flowable dermal matrix consisting of a stabilized formulation of renatured atelopeptide bovine fibrillar tropocollagen supplied in prefilled, ready to use syringes. Excellagen is manufactured according to cGMP and requires controlled temperature storage (2-8°C) to maintain structural integrity and bioactivity.
During manufacture, the collagen component of Excellagen is purified using a specialized, validated aseptic process that effectively inactivates potential contaminating viruses, eliminates impurities, and removes denatured molecules and collagen fragments. Excellagen consists almost exclusively of high molecular weight, intact, fibrillar collagen and is formulated at a concentration of 2.6% (26 mg/mL) in a physiologic buffer with protein stabilizing agents.

**Regentys Manufacturing**

Regentys has contracted with Cook Biotech Incorporated (“CBI”), West Lafayette, IN on the development and manufacture of the Regentys ECMH™ (Extracellular Matrix Hydrogel) Rectal Solution, an extracellular matrix hydrogel derived from small intestinal submucosa (SIS) of pigs. All manufacturing is conducted according to FDA cGMP standards.

**Pantheon Medical Manufacturing**

Pantheon manufactures foot & ankle surgical kits, including plates and screws under contract with a third-party contract manufacturer. The FDA has granted 510(k) clearance (“510(k) Approval”) to the Pantheon plates and screws, authorizing Pantheon to commercially distribute the foot & ankle surgical kit. The 510(k) Approval process, also known as pre-market notification, requires demonstrating that the new medical device is substantially equivalent to a legally U.S. marketed medical device. Once a device receives a 510(k) Approval, maintaining that status is based on compliance with annual requirements set by the FDA. All manufacturing is conducted under FDA GMP compliance.

**Raw Material Supplies**

**Generex Historical Business Raw Materials**

The excipients used in our formulation are available from numerous sources in sufficient quantities for clinical purposes, and we believe that they will be available in sufficient quantities for commercial purposes when required, although we have not yet attempted to secure a guaranteed commercial supply of any such products. Components suitable for our RapidMist™ brand metered dose inhaler are available from a limited number of potential suppliers, as is the chemical propellant used in the device. The components which now comprise the device are expected to be used in the commercial version of our insulin product in countries where the product has been approved. We do not currently have supply arrangements for commercial quantities with manufacturers for the components and the propellant that we presently use in our RapidMist™ brand metered dose. Reputable and reliable suppliers for these components exist and we believe that we can enter into arrangements for commercial supply with these suppliers when we are ready to commence commercial production.

Insulin is available worldwide from multiple sources. We do not currently have any agreements for the long-term supply of insulin, but we expect that we will be readily able to negotiate such an agreement before further clinical trials or commercial sales commence.

AE37 and other Ii-Key hybrid immunotherapeutic peptides are produced via standard peptide synthesis and purification methods requiring readily available amino acids and standard chemicals.

**NGDx Diagnostics Raw Materials**

A number of our components and critical raw materials are provided by third-party suppliers. Some of our supplies, including antigens and antibodies, may be available from only one or a limited number of sources. This may impact our ability to manufacture or sell product if our suppliers cannot or will not deliver those materials in a timely fashion, or at all, due to an interruption in their supply, quality or technical issues, or any other reason. The absence of any one or more of these supplies could prevent us from being able to commercially produce and market the affected product or products.
**Olaregen Raw Materials**

Excellagen collagen is derived from bovine hides that are sourced from animals continuously reared and slaughtered in Australia, a country recognized by the World Organization for Animal Health as having a negligible BSE risk. The cattle are declared fit for human consumption by Australian Quarantine and Inspection Service, and the starting material is EDQM certified. As of 2010, the World Health Organization (WHO) categorizes skin as a “lower-infectivity tissue” (Category IB). Bovine spongiform encephalopathy (also known as mad cow disease) has never been detected in cattle in Australia. Each lot of Excellagen undergoes rigorous release testing according to validated test methods and product specifications, including sterility.

**Regentys Raw Materials**

Extracellular matrix hydrogel is derived from porcine small intestinal submucosa which is primarily Types I, III, IV and VI collagen. The natural composition of SIS also includes fibronectin and laminin. The general function of these extracellular matrix (ECM) components are well-established. Porcine intestines are sourced from domestic animals in compliance with ISO 22442.

**Intellectual Property**

**Generex Historical Business**

Oral-Lyn & RapidMist

We hold a number of patents in the United States and foreign countries covering our buccal and other delivery technologies. We also have developed brand names and trademarks for products in appropriate areas. We consider the overall protection of our patent, trademark and other intellectual property rights to be of material value and acts to protect these rights from infringement. Our patent

Patents are a key determinant of market exclusivity for most branded pharmaceutical products. Protection for individual products or technologies extends for varying periods, in accordance with the expiration dates of patents in the various countries. The protection afforded, which may also vary from country to country, depends upon the type of patent, its scope of coverage and the availability of meaningful legal remedies in the country.

We currently have three issued U.S. patents and one pending U.S. patent application pertaining to various aspects of drug delivery technology, including oral administration of macromolecular formulations (such as insulin). We also currently hold international patents covering our drug delivery technology in jurisdictions other than the U.S., including Canada, Brazil, Argentina, Israel, Australia and Europe. The expiration dates of the U.S. issued patents range from 2020 to 2022, and the international patents are enforceable to 2028. We plan to submit new patent applications for the reformulated Oral-Lyn II for Type II diabetes upon funding.

We possess the worldwide manufacturing and marketing rights to our oral insulin product.

**Immunotherapy Intellectual Property Portfolio**

Platform Patents

The foundational “Platform Patents” for Ii-Key technology focus on methods of increasing the Antigen-specific activation of CD4+ T cells. This cell type is a critical component of the immune system, involved both in the recognition of new pathogenic agents as well as in autoimmune syndromes. The first technology platform (Ii-Key hybrid) relates to a means for increasing the vaccine potency of virtually any protein and while the second (Ii-suppression) relates to generation of an effective cell-based vaccine (REH-2007, REH-2014, REH-2015, REH-2017).

Oncology Patents

This group of patents relate more specifically to the use of the platform technologies for generating anti-cancer vaccines. We have generated Ii-Key hybrid compounds specifically for patients with breast, prostate, bladder, melanoma and HPV-related cancers (AEX-2001, AEX-2006, AEX-2007, REH-2005).
NuGenerex Immuno-Oncology holds 9 U.S. patents and 1 worldwide patent covering:

- Compositions and Methods Related to Ii Technology
- Ii hybrid peptides used for the enhancement of Antigen presentation
- Constructs for the expression of Ii-Key/Antigen epitope fusion peptides
- Hybrid Ii-Key/Antigen epitope fusion peptides
- Methods for inhibiting Ii expression

Although some U.S. patents on the Ii-Key technology have expired, we are in discussions with third parties to extend the patent coverage of the Ii-Key technology for cancer immunotherapy. The expiration dates of the immune-oncology applications of the Ii-Key hybrid technologies extend to 2031.

Our long-term success will substantially depend upon our ability to obtain patent protection for our technology and our ability to protect our technology from infringement, misappropriation, discovery and duplication. We cannot be sure that any of our pending patent applications will be granted, or that any patents which we own or obtain in the future will fully protect our position. Our patent rights and the patent rights of biotechnology and pharmaceutical companies in general, are highly uncertain and include complex legal and factual issues. We believe that our existing technology and the patents which we hold or for which we have applied do not infringe anyone else's patent rights. We believe our patent rights will provide meaningful protection against others duplicating our proprietary technologies. We cannot be sure of this, however, because of the complexity of the legal and scientific issues that could arise in litigation over these issues.

We also rely on trade secrets and other unpatented proprietary information. We seek to protect this information, in part, by confidentiality agreements with our employees, consultants, advisors, and collaborators.

**NGDx Intellectual Property**

NGDx holds a U.S. Patent for its sample delivery system which expires in 2026, US Patent # 7,749,771, titled “Device and methods for detecting analyte in a sample.” This is the basis for our EXPRESS system platform.

In June, 2018, we filed for patent protection for the Express II format with the US Patent and Trade Mark Office.

We believe NGDx’s long-term success will substantially depend upon our ability to obtain patent protection for our technology and our ability to protect our technology from infringement, misappropriation, discovery and duplication. We cannot be sure that any future patents will be granted, or that any patents which we own or obtain in the future will fully protect our position. Our patent rights and the patent rights of medical device companies in general, are uncertain and can include complex legal and factual issues. We believe that our existing technology and the patents which we hold or for which we have applied do not infringe anyone else's patent rights. We believe our patent rights will provide meaningful protection against others duplicating our proprietary technologies. We cannot be sure of this, however, because of the complexity of the legal and scientific issues that could arise in litigation over these issues.

**Olaregen Intellectual Property**

Olaregen has the exclusive license to Excellagen in all regions of the world except Russia, China, and the CIS countries (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan).

The U.S. patent on Excellagen has been issued as of October 10, 2017 and now has 17 years of additional exclusivity.

**Regentys Intellectual Property**

Regentys has licensed the exclusive, world-wide intellectual property rights for Regentys ECMH from the University of Pittsburgh in exchange for future royalties. The intellectual property subject to the license is entitled "Extracellular Matrix Derived Gels" and “Methods for Preparation of A Terminally Sterilized Hydrogel Derived From Extracellular Matrix” developed by Stephen Badylak et.al. of University faculty.
Additionally, Regentys and the University of Pittsburgh are co-owners by assignment of certain intellectual property rights pertaining to “Method and Composition for Treating Inflammatory Bowel Disease Without Colectomy” developed by Stephen Badylak and Timothy Keane of University and by Marc Ramer of the Regentys.

We continue to develop intellectual property for our current and future products.

**NuGenerex Surgical Supply Subsidiaries Intellectual Property**

We pursue strategic alliances and partnerships through intellectual property license agreements, and secure key purchase agreements from suppliers to build upon our portfolio of IP.

We also maintain stocking distribution agreements, which provide exclusive distribution rights in certain geographic areas and use of associated trademarks, service marks, and tradenames for the sale and promotion of the products we offer, which generally have durations of one (1) to three (3) years, subject to renewal terms. Furthermore, we require leased employees, independent contractors, consultants, and advisors to execute agreements, with varying terms of one to three years, which assign to us the IP existing and generated from their work. We believe our IP and exclusive distribution agreements provide us with important competitive advantages by (i) increasing our brand awareness and the brand awareness of the products we distribute; and (ii) ensuring that we use the latest design and manufacturing technology for our products that are perceived to be important to our customers.

**Seasonality**

Our products and services are not subject to seasonality.

**Competition**

**Generex Historical Business Competition**

We expect that products based upon our buccal delivery technology and any other products that we may develop will compete directly with products developed by other pharmaceutical and biotechnology companies, universities, government agencies and public and private research organizations.

Products developed by our competitors may use a different active pharmaceutical agent or treatment to treat the same medical condition or indication as our product or may provide for the delivery of substantially the same active pharmaceutical ingredient as our products using different methods of administration. For example, a number of pharmaceutical and biotechnology companies are engaged in various stages of research, development and testing of alternatives to insulin therapy for the treatment of diabetes, as well as new methods of delivering insulin. These methods, including nasal, transdermal, needle-free (high pressure) injection and pulmonary, may ultimately successfully deliver insulin to diabetic patients. Some biotechnology companies also have developed different technologies to enhance the presentation of peptide Antigens. Some of our competitors and potential competitors have substantially greater scientific research and product development capabilities, as well as financial, marketing and human resources, than we do.

Where the same or substantially the same active ingredient is available using alternative delivery means or the same or substantially the same result is achievable with a different treatment or technology, we expect that competition among products will be based, among other things, on product safety, efficacy, ease of use, availability, price, marketing and distribution. When different active pharmaceutical ingredients are involved, these same competitive factors will apply to both the active agent and the delivery method.

We consider other drug delivery and biotechnology companies to be direct competitors for the cooperation and support of major drug and biotechnology companies that own or market proprietary pharmaceutical compounds and technologies, as well as for the ultimate patient market. Of primary concern to us are the competitor companies that are known to be developing delivery systems for insulin and other pharmaceutical agents that we have identified as product candidates and technologies to enhance the presentation of peptide antigens.
Large pharmaceutical companies, such as Merck & Co., Inc., GlaxoSmithKline PLC, Novartis, Inc., MedImmune Inc. (a subsidiary of Astra-Zeneca, Inc.) and others, also compete in the oncology, immunomedicine, and vaccine markets. These companies have greater experience and expertise in securing government contracts and grants to support research and development efforts, conducting testing and clinical trials, obtaining regulatory approvals to market products, as well as manufacturing and marketing approved products. As such, they are also considered significant competitors in these fields of pharmaceutical products and therapies. There are also many smaller companies which are pursuing similar technologies in these fields and are considered to be our competitors.

There are also a number of companies developing alternative means of delivering insulin in the form of oral pills, transdermal patches, and intranasal methods, which are at early stages of development. In addition to other delivery systems for insulin, there are numerous products, such as sulfonylureas (Amaryl® and Glynase®), biguanides (branded and generic metformin products), thiazolidinediones (Avandia® and Actos®), glucagon-like peptide 1 (Byetta® and Victoza®), and dipeptidyl peptidase IV inhibitors (Januvia® and Onglyza™), which have been approved for use in the treatment of Type 2 diabetics in substitution of, or in addition to, insulin therapy. These products may also be considered to compete with insulin products.

In addition, there are a number of companies that are pursuing cancer treatments using immunotherapy technologies which have products in various clinical trial stages. Some of these companies are Argos Therapeutics Inc., Cellmedex Therapeutics Inc., Northwest Therapeutics Inc., Immatics Biotechnology GmbH, Immunocellular Therapeutics Ltd., TVAX Biomedical Inc., and Newlink Genetics Corporation. These companies can also be considered to be competitors.

**NGDx Competition**

The diagnostics industry is a multi-billion dollar international industry and is intensely competitive. Many of our competitors are substantially larger and have greater financial, research, manufacturing and marketing resources. Industry competition in general is based on the following:

- Scientific and technological capability;
- Proprietary know-how and intellectual protection;
- The ability to develop and market products and processes;
- The ability to obtain FDA or other regulatory clearances;
- The ability to manufacture products that meet applicable governmental and NGO requirements;
- The ability to manufacture products cost-effectively;
- Access to adequate capital; and
- The ability to find and retain qualified personnel.

We believe our scientific and technological capabilities, as well as our proprietary technology and know-how relating to our rapid tests, particularly for the development and manufacture of tests for the detection of antibodies to infectious diseases are, indeed, very strong and will allow us to compete in this market.

**Main Competitors**

In the diagnostic space, Alere Inc., which was acquired by Abbott Laboratories in 2017, is our main competitor and one of the major players in RTDs for infectious diseases. Standard Diagnostics is a strong competitor on an international basis, incorporating a cassette design into each of their products. Our competitors also include Chembio Diagnostic Systems Inc., a publicly traded diagnostic company that develops, manufactures and commercializes diagnostic solutions. There are a number of point-of-care strip manufacturers in China that serve the market in that country. As of yet, most of these companies have not made a significant impact on the overall global market but could be considered as a future source of competition. As infectious diseases are epidemic and in the minds of the public, there will be more competitors coming into the market place. However, competition will be based upon the implementation of a cassette or a “dipstick” format.
Competitive Advantage

We believe our unique and simple EXPRESS product design delivers significant advantages over our competition.

Due to the potential infectious character of the whole blood test sample, our EXPRESS series of RDTs are designed to perform and deliver test results while sealed within the EXPRESS housing, carefully controlling the potentially infectious test sample. This design helps to increase our ability to control the possibility of cross-contamination. Most of our competitors’ products, while inexpensive, are not as user-friendly, require substantially more training, and have greater risk of cross-contamination. And, the simplicity of use of our EXPRESS platforms fits directly into the necessities of World Health Organization Rapid Disease Testing Algorithms and individual country disease reduction goals and priorities.

Our products are more intuitive and self-explanatory than our competitors’, making it easier and safer to use. Our products require less training and education. Each EXPRESS is configured to operate in the same way regardless of the type of disease being tested.

With ease of use, simple design, and faster results, our products allow for more tests administered at the patient point of care level.

We will compete on the basis of these advantages. Most of our competitors’ products, while inexpensive, are not as user-friendly, require substantially more training, and have greater risk of cross-contamination.

NuGenerex Immuno-Oncology Competition

The cancer immunotherapy space is crowded as the scientific mechanisms of cancer and immunity become better understood. According to the Cancer Research Institute, there are 3,394 immuno-oncology therapies in the current global development pipeline, with 1,287 of them in clinical studies. The major pharmaceutical companies, including Novartis, Bristol-Myers Squibb, Merck, Sanofi, and Pfizer, among others have significant research and development efforts in the immune-oncology field.

Neon Therapeutics is a leading immune-oncology biotechnology company. TapImmune and Marker Therapeutics recently merged to advance innovative neoantigen and immunotherapy products.

NuGenerex Surgical Products Competition

As a national distributor, we primarily compete with other distributors, as well as large, vertically-integrated medical device manufacturers that enjoy well-established distribution channels, national sales networks, direct sales models, and participation in large group purchasing organizations contracted with major hospitals and surgery centers.

We believe that our status as the manufacturer and distributor of FDA-approved Maxim X-Treme System, sets us apart from other distributors and gives us a competitive advantage against distributors who are not able to manufacture their own products.

Generally, we view Stryker Corporation, Smith & Nephew, and Orthofix International, N.V., as examples of our vertically-integrated competitors. We believe those competitors, and companies like them, only distribute products they manufacture and have significant costs related to research and development and organizational support. Conversely, we sell a broad portfolio of specialized third-party manufacturers’ products and have no costs related to research and development for such third-party products, nor do we have similar costs for organizational support since we are not vertically-integrated. Thus, we believe our competitive advantage lies primarily with our single-source fulfillment sales model, allowing us to offer a broader assortment of several manufacturers’ products. Furthermore, as a manufacturer for some medical devices, we do not have significant costs associated with research and development or organizational support. Thus, we generally see immediate increases in revenues because of the increased gross margins afforded by the lower costs associated with being a manufacturer. Accordingly, the compensation packages we offer to our employed sales team have higher-earning potentials than the compensation packages our competitors offer, allowing us to attract and retain talented and experienced employees.
We contract primarily with small- and medium-sized manufacturers of Orthopedic Implants that are subject to FDA compliance and approval standards. These manufacturers are highly innovative and cost effective because of their streamlined sales infrastructures. Because of our organizational structure, large distribution footprint, and our sales model, we tend to align well with our specialized suppliers’ competitive strategies, which we believe results in more partnerships with such suppliers than our competitors, because we can purchase large quantities of their product as a wholesale customer.

We believe the competition in our industry is primarily caused by continued mergers and acquisitions of smaller distributors by larger, vertically-integrated companies that produce, market and distribute medical devices, Orthopedic Implants, and Biologics. Our vertically-integrated competitors benefit from their ability to control costs for the devices they manufacture and distribute. Moreover, the market in which we operate is sensitive to changes in third-party and government reimbursements and, to a lesser degree, competitive discount pricing. We believe that our industry will continue to see increased mergers and acquisitions because the market is significantly fragmented with numerous medical device distributors and specialized suppliers offering similar product portfolios throughout the United States.

**Environmental Compliance**

Our research and development activities have involved the controlled use of hazardous materials and chemicals. We believe that our procedures for handling and disposing of these materials comply with all applicable government regulations. However, we cannot eliminate the risk of accidental contamination or injury from these materials. If an accident occurs, we could be held liable for damages, and these damages could severely impact our financial condition. We are also subject to many environmental, health and workplace safety laws and regulations, particularly those governing laboratory procedures, exposure to blood-borne pathogens, and the handling of hazardous biological materials. Violations and the cost of compliance with these laws and regulations could adversely affect us. However, we do not believe that compliance with applicable environmental laws will have a material effect on us in the foreseeable future.

**Research and Development Expenditures**

**NGDx Research & Development Expenditures**

A substantial portion of our activities to date have been in research and development. Generex expended $381,030 in the fiscal year ended July 31, 2019 and $315,318 in the fiscal year ended July 31, 2018 on research and development related to its buccal delivery products and Antigen’s immunotherapy products.

NGDx research and development expenditures were $598,000 in the 12 months ended July 31, 2019 and $524,000 in the 12 months ended July 31, 2018. NGDx research and development is primarily related to development of the EXPRESS II and testing of existing products for stability and accuracy and development of new test parameters.

**NuGenerex Immuno-Oncology Research & Development Expenditures**

NuGenerex Immuno-Oncology is engaged in a clinical trial to evaluate the use of AE37 immunotherapeutic peptide vaccine in combination with pembrolizumab (Merck’s Keytruda) for the treatment of triple negative breast cancer. We have expended roughly $450,000 to date to finance the trial, including the cost of clinical supplies and packaging. The trial will require additional funding estimated at roughly $1.5 million over the next three years.

**Employees**

The Generex management team has been working without contracts or employment agreements since taking over the Company in January 2017. Upon financing, we expect to engage the management team as employees with terms to be determined by the Compensation Committee of the Generex Board of Directors.

The historical Generex businesses have no employees. Other than our officers, we have no employees in Generex Biotechnology Corporation. Dr. Eric von Hofe is the President of NuGenerex Immuno-Oncology, overseeing the development of AE37; we have hired a consultant to help manage the AE37 clinical development program. Dr. James Anderson, a Generex Director oversees the Oral-Lyn development program, and has outsourced development activities to third-party academic researchers for Ora-Lyn II reformulation.
**NuGenerex Distribution Solutions Employees**

NDS has retained a staff of four departmental leaders to kick off the restart of our MSO including HR, IT, Legal, and Sales.

NDS intends to restart its MSO and launch sales initiatives of its new products and services. We will continue to augment our staff with third-party contractors to expand our portfolio of ancillary services with a large focus on sales in targeted key markets.

**NuGenerex Diagnostics Employees**

We had one officer who is engaged as an independent contractor. We engage consultants from time to time to assist with financial recordkeeping and other tasks. As of July 31, 2019, NGDx had four full time employees and two part-time regulatory consultants. Of these, three were engaged in development, regulatory compliance, laboratory validation and manufacturing, one in sales and one in professional or administrative activities.

We use non-employee consultants to assist us in formulating research and development strategy, in preparing regulatory submissions, and in developing protocols for clinical trials. We also use non-employee consultants to assist us in business development.

**Olaregen Employees**

Olaregen employs a staff of 5 full-time executives and administrative personnel, including the CEO, COO, Medical Director, and Vice Presidents of Sales and Business Development. Additionally, the company contracts with distributors and contract sales forces in target market sectors.

Following the commercial launch of Excellagen in April 2019, the company plans to manage growth through a combination of hiring operations, finance & accounting, marketing, and sales professionals, with support staff on an as needed basis. We will continue to augment our staff with third-party contractors for manufacturing, distribution, and sales in target markets.

**Regentys Employees**

Regentys employs a staff of 4 full-time executives and administrative personnel, including the CEO, COO and Vice President of finance.

**Properties**

We employ executives, employees and consultants who work in various locations in and outside of Florida. Our office in Miami Lakes, Florida serves as the headquarters for us. This space is sufficient to accommodate the expected number of employees working in the metro Miami area. The existing lease provides substantial flexibility in the event we require additional space. Technology affords us the luxury of collaboration among staff from varying locations.

NGDx’s corporate offices, product development facilities, regulatory affairs offices, and laboratory and assembly facilities are contained in a 5,627 square foot facility in Miramar, Florida. The facility is leased through July 31, 2020 with a current monthly base rent of $7325 including taxes and expenses. Our facility is an FDA Registered Facility. Based on order size, delivery requirements and current orders in process, our Miramar facility can handle up to one million RTD devices, all of which are currently hand assembled. We have relationships with subcontractors to handle additional production requirements.

We do not expect to need manufacturing capabilities related to our insulin or immunotherapy products, as it is likely that we will contract out the manufacturing of product requirements for any future clinical trials and commercial sales.
Legal Proceedings

In December 2011, a vendor of the Company commenced an action against the Company and its subsidiary, Generex Pharmaceuticals, Inc., in the Ontario Superior Court of Justice claiming damages for unpaid invoices including interest in the amount of $429,000, in addition to costs and further interest. The Company responded to this statement of claim and also asserted a counterclaim in the proceeding for $200,000 arising from the vendor’s breach of contract and detinue, together with interest and costs. On November 16, 2012, the parties agreed to settle this action and the Company has agreed to pay the plaintiff $125,000, following the spinout of its subsidiary Antigen, from the proceeds of any public or private financing related to Antigen subsequent to such spinout. Each party agreed to execute mutual releases to the claim and counterclaim to be held in trust by each party’s counsel until payment of the settlement amount. Following payment to the plaintiff, the parties agree that a Consent Dismissal Order without costs will be filed with the court. If the Company fails to make the payment following completion of any post-spinout financing related to Antigen or any other subsidiaries, the Plaintiffs may take out a judgment in the amount of the claim plus interest of 3% per annum and costs fixed at $25,000. This has been accrued in the audited condensed consolidated financial statements for the year ended July 31, 2019 and the unaudited condensed interim consolidated financial statements for the period ending October 31, 2019.

On August 22, 2017, Generex received a letter from counsel for Three Brothers Trading LLC, d/b/a Alternative Execution Group (“AEXG”), claiming breach of a Memorandum of Understanding (“MOU”) between Generex and AEXG. The MOU related to AEXG referring potential financing candidate to Generex. The letter from AEXG counsel claimed that Generex’s acceptance of $3,000,000 in financing from Pharma Trials, LLC, in March 2017, violated the provisions of the MOU prohibiting Generex from seeking other financing, with certain exceptions, for a period of 60 days after execution of the MOU. AEXG has demanded at least $210,000 in cash and 84,000 warrants for Generex stock convertible at $2.50 per share, for attorney’s fees and costs. AEXG filed a demand for arbitration and on September 25, 2018 an arbitration hearing was held with an arbitrator from the American Arbitration Association’s International Centre for Dispute Resolution. On December 2, 2018, an arbitrator awarded AEXG an aggregate of $315,695 in damages, costs and fees as well as warrants exercisable for 84,000 shares of Generex Common Stock at an exercise price of $2.50 per share. AEXG filed a petition to confirm the arbitrator’s award in the United States District Court for the Southern District of New York. The petition includes a demand of $3,300,360 as the value of the warrants. The arbitrator did not award the specific amount of $220,000 and the value of 84,000 warrants “as of today” (the date of the award) plus attorney’s fees, certain costs, prejudgment and post-judgment interest (which continues to run on a daily basis) and arbitration fees, Generex has responded that the value of the warrants on the date of the award is $0 or some figure far less than the value calculated by AEXG. The petition to confirm the arbitrator’s award and Generex’s opposition were remanded by the Court to the arbitrator and returned for clarification. The arbitrator stated that he was unable to add any clarification, as he did not take evidence on the issue of warrant valuation. The parties are awaiting the court’s response to the Arbitrator’s statement.

On June 28, 2018, the Company was named in respect of a claim by Burrard Pharmaceutical Enterprises Ltd. and Moa’yer Kayhan for unspecified damages and other remedies issued by the Supreme Court of British Columbia. The claim is made in connection with one advanced against Burrard and Kayhan by Middle East Pharmaceutical Factory L.L.C., a foreign corporation, for fraudulent or negligent misrepresentation. Middle East alleges that it was misled by Burrard and Kayhan into believing that Burrard had rights to distribute Generex product in the Middle East. Burrard and Kayhan allege that they did have rights in that regard, which the Company denies. The matter remains at the pleadings stage and we are investigating the facts.

On October 26, 2018, Generex entered into a securities purchase agreement with Alpha Capital Anstalt (“Alpha”) pursuant to which we agreed to sell and sold a note due October 26, 2019 in the principal amount of $682,000. The purchase price of the note was $550,000. The remaining $122,000 of principal amount represents original issue discount. On January 25, 2018, Generex received a letter from Alpha’s counsel stating that the note was in default because Generex’s common stock was not listed on NASDAQ within 90 days after the issuance of the note. The letter demanded repayment in full. The Company filed a motion for summary judgement in lieu of complaint in the Supreme Court demanding the aggregate principal amount, default interest and costs. Counsel for Generex and Alpha have engaged in settlement discussions.
On March 21, 2019 Compass Bank filed suit against NuGenerex Distributions Solutions 2, L.L.C. in the District Court of Dallas County, Texas requesting damages of $3,413,000. In connection with the closing of the Veneto acquisition, Compass Bank had a lien on certain assets that were supposed to be transferred into the ownership of NuGenerex, a subsidiary of Generex. Those assets were never transferred due to regulatory impositions. Generex had listed Compass Bank as an intended third party beneficiary to the transaction in relation to the assets liened and Veneto ceased payments upon the loan which the lien generated from. Compass bank filed suit against 6 parties involved in the transaction to collect on the loan, including NuGenerex. NuGenerex’s position is the contract was frustrated by the assets that were liened never being transferred, NuGenerex did not receive any benefit from the agreement, and thus NuGenerex is not responsible to Compass Bank for repayment of a loan on assets not transferred. Generex intends to impale Brooks Houghton for indemnification who was retained to perform due diligence on the transaction.

In May 2019 Brooks Houghton initiated a FINRA Dispute Resolution. Brooks Houghton, who the managing representative is Mr. Centonfanti a prior board member, was under contract to perform due diligence on the Veneto transaction, assist in raising capital, as well as other unrelated items. The Veneto transaction closed three times, each time with a reduction in price due to material negative circumstances. Brook Houghton, who was under contract to perform due diligence, claims their fee should be paid on the initial closing price not the ultimate resolution of the matter. The Company offered to compensate Brooks Houghton pursuant to agreement, 3% on the most recent closing price for Veneto for which Brooks Houghton may have performed some level of work on, payable in kind, and Brooks Houghton declined the offer. Brooks Houghton is claiming $450,000 for the first closing of Veneto, $714,000 for the second closing of Veneto, $882,353 for the Regentys acquisition, and $705,882 for Olaregen. The company is awaiting service.

On September 9, 2019 Generex and its subsidiary NuGenerex Distribution Solutions, LLC, and NuGenerex Distributions Solutions 2, LLC (jointly “NDS”) filed a litigation against Veneto, and the constituent entities, for fraud, breach of contract, and a motion for a temporary restraining order restraining the shares contemplated in the Asset Purchase Agreement (“APA”) (supra) for hiding their involvement in a massive healthcare fraud scheme, which is currently being prosecuted civilly by the federal government and filing to transfer assets specified in the APA. The litigation is pending the Court of Chancery in the State of Delaware. Our motion for a temporary restraining order on transfer of shares we issued in connection with the acquisition of Veneto assets was denied by the Court of Chancery. Generex intends to continue to pursue claims against Veneto and its principals in a separate action. In a related action, our transfer agent has been sued for failure to process a transfer of the shares issued pursuant to the APA. This suit was brought in the United States District Court for the Eastern District of New York. Generex is not named in the suit, but our transfer agent has notified us of our obligation to indemnify them pursuant to our agreement with the transfer agent.

MANAGEMENT

Executive Officers and Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Age</th>
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</thead>
<tbody>
<tr>
<td>Joseph Moscato</td>
<td>CEO, President and Chairman of the Board</td>
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<tr>
<td>Andrew Ro</td>
<td>Chief Investment Officer, Director</td>
<td>49</td>
</tr>
<tr>
<td>Mark Corrao</td>
<td>Chief Financial Officer, Treasurer</td>
<td>62</td>
</tr>
<tr>
<td>Terry Thompson</td>
<td>Chief Operating Officer</td>
<td>61</td>
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<tr>
<td>Anthony Crisci, Esq., CPA</td>
<td>Chief Legal Officer</td>
<td>49</td>
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<tr>
<td>Richard Purcell</td>
<td>Executive Vice President of Research &amp; Drug Development</td>
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<tr>
<td>Dr. Jason Terrell, MD</td>
<td>Chief Scientific Officer</td>
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<tr>
<td>Anthony Dolisi</td>
<td>Chief Commercial Officer</td>
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<tr>
<td>Dr. Craig Eagle, MD</td>
<td>Independent Director</td>
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<td>Brian T. McGee</td>
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<td>Dr. James H. Anderson Jr., MD</td>
<td>Independent Director</td>
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<tr>
<td>Lawrence Salvo</td>
<td>Director</td>
<td>67</td>
</tr>
<tr>
<td>Mark Priorelli</td>
<td>Independent Director</td>
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</table>

Directors are currently appointed for a one-year term.
Joseph Moscato. Mr. Moscato has served as our Chief Executive Officer, President, and Chairman of the Board since January 2017.

Mr. Moscato has over 30 years of experience in healthcare, sales and marketing, distribution management, and finance. Mr. Moscato brings his marketing and advertising acumen to drug discovery and diagnostic & treatment development and has originated and negotiated several licensing deals with the top biopharmaceutical companies; has advised on equity financings totaling over $300 million, and has implemented the broad strategic vision for the Company. Mr. Moscato has worked and consulted for Pfizer in several capacities from sales and marketing to new drug discovery & development for licensing. He has worked with other biopharmaceutical companies such as GlaxoSmithKline, Johnson & Johnson, Parke-Davis, Amgen and others. Mr. Moscato has consulted for several healthcare focused private equity, hedge funds and family offices.

Mr. Moscato also owned several advertising and marketing agencies focused on media, entertainment, and healthcare with clients ranging from Motorola, Chadmoore Wireless, Nextel, Cannon, Sharp, GlaxoSmithKline, Pfizer, and other biopharmaceutical companies. Mr. Moscato’s agency was acquired by William Douglas McAdams, one of the largest independent healthcare advertising and marketing agencies. Mr. Moscato’s experience as an executive and consultant to us qualifies him to serve on our Board of Directors.

Andrew Ro. Mr. Ro has served as our Chief Investment Officer and a Director since January 2017.

Mr. Ro has over 25 years of experience in the financial markets ranging from trading global futures and equity markets, senior secured debt, convertible securities, private investments in public equities (PIPEs) and investing. From 2012 to 2017, Mr. Ro was a consultant and advisor involved in developing strategies in specialty finance for healthcare, technology, real estate, media, entertainment, energy and project financing. From 2008 to 2012, Mr. Ro was a consultant and registered representative with boutique investment and merchant banks where he consulted and advised US and international companies on capital markets, operational, and regulatory issues as well as being involved in capital raising, mergers & acquisitions, and strategic implementation. From 2002 to 2008, Mr. Ro was a Partner with an active Investment Fund where he was involved in originating, structuring, negotiating and closing financing transactions providing growth capital, acquisition financing, recapitalization, restructuring and general working capital to late-stage venture, distressed and middle market companies across all industries and sectors. Mr. Ro originated and structured over $2 billion in total commitments and managed a portfolio of over $650 million in investments. Previously, Mr. Ro was a trader involved in trading financial and non-financial derivatives where he eventually developed a FinTech platform for trading futures and commodities. Mr. Ro graduated from George Mason University with a Bachelor of Science in Economics. He also held Series 3, Series 7, and Series 63 licenses.

Mark Corrao. Mr. Corrao has served as our Chief Financial Officer, Treasurer since January 2017.

Mr. Corrao has experience in financial management with a proven track record of raising capital and extraordinary bottom line management. He has been involved in the initial registration of numerous public companies and subsequent SEC quarterly and annual reporting and has developed, authored and presented numerous business plans and models inclusive of budgets, forecasts, cash flow, cash management and investment strategies. From 2012 to present he has affiliated with of The Mariner Group LLC, which merged with the CFO Squad, creating a much larger and diverse multi-talented organization. The CFO Squad is a financial and business advisory firm providing outsourced and part-time CFO services for emerging to midsized companies (both private and public) in a wide range of businesses and industries. He is the Chief Financial Officer for Kannalife, Inc., a pharmaceutical company specializing in the research and development of novel and new therapeutic agents designed to reduce oxidative stress and act as immune modulators and Neuroprotectants. From 2010-12, he served as Chief Financial Officer of New York Business Efficiency Experts, Inc. which provides professional services in the financial areas of accounting, taxation, auditing, venture capital and SEC registrations (reporting). He served as a Director and Chief Financial Officer for a manufacturer of proprietary software for the prevention of identity theft and the protection of computer systems from unauthorized access.
Terry Thompson. Mr. Thompson, 61, has been serving as our Chief Operating Officer from January 2018.

From December 2018, he also has been serving as President of NuGenerex Distribution Solutions. Prior to this, Mr. Thompson served as a private consultant to his private equity partners and investors providing analysis, strategic business development, and due diligence on targeted companies primarily but not limited to health care. Mr. Thompson spent a long career in significant positions for companies including start-up Federal Express Corporation, National Pharmacies, Medco Containment Services, Synetic, Inc., Merck- Medco, Inc., Merit Behavioral Care Corporation, Medical Logistics, Inc., Treasure Coast Ventures, LLC, Closer Healthcare, Inc. Mr. Thompson graduated from the University of Memphis.

Anthony S. Crisci, Esq., C.P.A. Mr. Crisci has served as our Chief Legal Officer since August 2019.

Anthony S. Crisci, Esq., C.P.A. is an attorney and certified public accountant with over twenty (20) years of experience in tax, accounting, finance, corporate, health care and employee benefit matters. Mr. Crisci has built a stellar career as a business legal executive across a number of regulated industries.

Mr. Crisci has served as our Chief Legal Officer since August 2019; previously, from November 2018, he was Corporate Counsel for Generex and remains as the Chief Administrative Officer and Chief Legal Counsel for Generex’s wholly owned subsidiary, NuGenerex Distribution Solutions, where he oversees business, accounting, and legal matters for NuGenerex’s distribution enterprise. Most recently, Mr. Crisci was General Counsel, COO, CFO, and Controller for a publicly traded holding company, specializing in financial services and technology software companies. Previously, he served as Corporate Counsel for a major health system with $1 Billion in annual revenues, and General Counsel for a National Pharmacy Benefit Management Company that includes mail and specialty drug dispensing.

Mr. Crisci brings a broad range of capabilities with his legal, business, financial, and regulatory background, and his expertise is instrumental in the execution of Generex’s strategic objectives, including mergers & acquisitions, joint venture and development agreements, in-licensing and out-licensing agreements, and most importantly, long term supply and distributorship agreements for nation-wide pharmacy, laboratory, and medical management services. Mr. Crisci holds a Bachelor of Business Administration degree in Accounting from Hofstra University and a Juris Doctor degree, with distinction, from Hofstra University School of Law. He is a licensed CPA and a Member of the New York State and New Jersey State Bar Associations.

Richard Purcell. Mr. Purcell has served as our Executive Vice-President of Research & Drug Development since January 2017.

Since 2005, Mr. Purcell has managed a consulting practice, DNA Healthlink, Inc. advising emerging biopharmaceutical and technology companies on new business strategy, operations management, and clinical development of novel compounds. Since January 2017, he has served as the Senior Vice President of Research and Drug Development for Generex, active in strategic planning, business development, clinical operations, R&D, and M&A. Through DNA Healthlink, Mr. Purcell has been the SVP of R&D for RespireRx Pharmaceuticals since 2014. From 2011 to 2017, Mr. Purcell was the President and founder of a Healthcare IT startup, IntelliSanté. Mr. Purcell graduated with a degree in Biochemical Sciences from Princeton University, and attended Rutgers Graduate School of Management majoring in marketing and finance. He is also an Adjunct Professor of Biology at Monmouth University.

Dr. Jason B. Terrell, MD. Dr. Terrell has served as the Company’s Chief Scientific Officer and Chief Medical Officer since January 2017.

Dr. Terrell is the Chief Scientific Officer and Chief Medical Officer of Generex, providing scientific and medical due diligence for partnerships and mergers/acquisitions, and providing clinical oversight for subsidiary operations and product development strategies. Since 2017, he has also served as Assistant Clinical Professor of Oncology, University of Texas at Austin Dell Medical School as an industry and clinical expert advisor to researchers, innovators, and entrepreneurs for accelerating the translation of innovations to health products for Texas Health Catalyst. Since 2017, he has also been Lead Independent Director and Non-Executive Chairman of Kiromic Biopharma Inc, providing guidance for corporate formation, business development, product development and commercialization strategies. Since 2016, Dr. Terrell has served as CEO and Chief Medical Officer for Volition America Inc. From 2010 to 2015 he was Corporate Medical Director for AnyLabTestNow. Dr. Terrell is a summa cum laude graduate from Hardin-Simmons University with a degree in Biochemistry. He graduated as recipient of the Holland Medal of Honor for the top graduate in the School of Science and Mathematics. Dr. Terrell was honored with the Hardin-Simmons University Outstanding Young Alumni Award and currently serves on the University’s Board of Development. Dr. Terrell attended The University of Texas School of Medicine in Houston and received General Medicine Internship and Pathology Residency training at the Texas Tech University Health Sciences Center.
**Anthony Dolisi.** Anthony Dolisi has served as Chief Commercial Officer and CEO of Olaregen Therapeutix for GNBT since January 2019.

Mr. Dolisi served as the CEO of Olaregen Therapeutix from April of 2018 prior to our acquisition. From October 2015 to November 2016 he served as Sales Director for AG Pharmaceuticals. He served in various key sales positions for 10 years previously for Johnsons and Johnson.

**Dr. Craig Eagle, MD.** Dr. Eagle serves as an independent Director of GNBT Since January of 2017.

Since May of 2019, Dr. Eagle is serves as the Vice President of Medical Affairs Oncology, Genentech where he oversees the medical programs across the oncology portfolio. Prior to his current role and for over 5 years Dr. Eagle worked at Pfizer in several positions including as the oncology business lead in United Kingdom and Canada delivering significant business growth. Previously, Dr. Eagle was the global lead for Oncology Strategic Alliances and Partnerships based in New York at Pfizer Inc. and was involved in multiple deals on both the sell and buy side. Dr. Eagle started work in Pfizer New York as the global head of the Oncology Therapeutic Area Global Medical and Outcomes Group for Pfizer, including the US oncology business, in this role he oversaw an extensive oncology clinical trial program, health outcomes assessments and scientific collaborations with key global research organizations like the National Cancer Institute (NCI), and EORTC. As part of this role Dr. Eagle lead the worldwide development of several compounds including celecoxib, aromasin, irinotecan, dalteparin and ozagomicin. Concurrently, Dr. Eagle has been a Member of Scientific Advisory Board at Generex Biotechnology Corp. since August 2010. He has served on the scientific advisory committee and board of directors for several start up biotechnology companies.

Dr. Eagle attended Medical School at the University of New South Wales, Sydney, Australia and received his general internist training at Royal North Shore Hospital in Sydney. He completed his hemato-oncology and laboratory hematology training at Royal Prince Alfred Hospital in Sydney. He was granted Fellowship in the Royal Australasian College of Physicians (FRACP) and the Royal College of Pathologists Australasia (FRCPA). After his training, Dr. Eagle performed basic research at the Royal Prince of Wales hospital to develop a new monoclonal antibody to inhibit platelets.

**Brian T. McGee.** Mr. McGee serves as an independent Director.

Mr. McGee has served as director of Generex since 2004. Mr. McGee has served as Chairman of the Generex Audit Committee and a member of the Generex Compensation and Corporate Governance and Nominating Committees. Mr. McGee has been a partner of Zeifmans LLP (“Zeifmans”) since 1995. Mr. McGee began working at Zeifmans shortly after receiving a B.A. degree in Commerce from the University of Toronto in 1985. Zeifmans is a Chartered Accounting firm based in Toronto, Ontario. A significant element of Zeifmans’ business is public corporation accounting and auditing. Mr. McGee is a Chartered Accountant. Throughout his career, Mr. McGee has focused on, among other areas, public corporation accounting and auditing. In 1992, Mr. McGee completed courses focused on International Taxation and Corporation Reorganizations at the Canadian Institute of Chartered Accountants and in 2003, Mr. McGee completed corporate governance courses on compensation and audit committees at Harvard Business School. In April 2004 Mr. McGee received his CPA designation from The American Institute of Certified Public Accountants. Mr. McGee has received a certificate in International Financial Reporting Standards issued by The Institute of Chartered Accountants in England and Wales in 2010. The Board believes that Mr. McGee’s knowledge and understanding of accounting and finance, his education and training in accounting and corporate governance, and his extensive experience in the accounting industry.
Dr. James H. Anderson, Jr., MD. Dr. Anderson serves as an independent Director.

Dr. Anderson has served as Director of the Company since June 2011. Dr. Anderson has previously served as Chairman of the Corporate Governance and Nominating Committee and a member of the Generex Compensation and Audit Committees and has served on the Generex Scientific Advisory Board since October 2010. Dr. Anderson is a diabetologist and endocrinologist who has been in the pharmaceutical industry for over 25 years. He is currently CEO and President of Symcopeia, a private drug discovery and development company focused on new mechanisms of action for the treatment of diabetes mellitus, and diabetes related obesity and cardiovascular diseases. Dr. Anderson also serves as medical director of PTS Diagnostics, a cardiometabolic medical device company. From 2005 to 2009, Dr. Anderson served as Senior Medical Director for Diabetes and Cardiometabolic Medicine with Eli Lilly and Company. Dr. Anderson is an elected Fellow of the Faculty of Pharmaceutical Medicine of the Royal Colleges of Physicians of the UK, was a founding board member of the American Association of Pharmaceutical Physicians and is a Fellow of the American College of Endocrinology. Dr. Anderson has been active in the American Diabetes Association and is a member of the International Diabetes Federation, the European Association for the Study of Diabetes, and the Endocrine Society. Dr. Anderson is a founding editorial board member of two journals for diabetes and serves on the editorial boards of the other diabetes/endocrine journals. Dr. Anderson is a Clinical Associate Professor of Medicine for the Division of Endocrinology and Metabolism at the Indiana University School of Medicine and was awarded an M.D. from the LSU School of Medicine. Dr. Anderson attained the rank of Lieutenant Colonel in the US Army Medical Corps and during his military career, he served as the Chairman, Department of Clinical Investigation at the Army’s largest healthcare center, and Chief of the Medical Division of the US Army Medical Research Institute for Infectious Diseases. Dr. Anderson’s medical and scientific knowledge and experience qualifies him to serve on our Board of Directors.

Lawrence Salvo. Mr. Salvo served as Director of GNB since January 2017. Previously he was Generex Executive VP of Diagnostics and President of Hema Diagnostic Systems until March 2017, and therefore is not independent.

For over five years Mr. Salvo is the founder of Hema Diagnostic Systems which grew out of the predecessor company, International Diagnostics and Medical Supply. In his role at NGDx (formerly “HDS”), he was directly responsible for all international negotiations, applications, and approvals from the World Health Organization (WHO). Since selling HDS to Generex, Mr. Salvo has been an active member of the Generex board, and has engaged in external consulting activities, primarily in international development. He is a graduate from St. Vincent de Paul Major Seminary, Boynton.

Mark Prioletti. Mr. Prioletti serves as an independent Director.

Mr. Prioletti was appointed a director on April 3, 2019. Mr. Prioletti is a highly experienced marketing and business professional with over 35 years of success in the wireless communications industry for government, enterprise, and consumer segments in both the US and international markets. Mr. Prioletti had a distinguished career at Motorola, leading Channel Marketing & Sales, New Program Development, Partnership and Alliance Development to vastly expand the Motorola sales operations, which continually generated profitable revenue and growth for both emerging markets and mature businesses. Mr. Prioletti graduated with a BA in Marketing Communications and a minor in Journalism from the University of Detroit. Mr. Prioletti served on the board for the International Wireless Communications Association from 2000-2011. Mr. Prioletti’s marketing and sales experience qualifies him to serve on our Board of Directors.

Family Relationships

There are no family relationships among the officers and directors, nor are there any arrangements or understanding between any of the Directors or Officers of our Company or any other person pursuant to which any Officer or Director was or is to be selected as an officer or director.
Involvement in Certain Legal Proceedings

During the past ten years, none of our directors or executive officers has been:

• the subject of any bankruptcy petition filed by or against any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;

• convicted in a criminal proceeding or is subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);

• subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction or any Federal or State authority, permanently or temporarily enjoining, barring, suspending or otherwise limiting his involvement in any type of business, securities or banking activities;

• found by a court of competent jurisdiction (in a civil action), the Commission or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law;

• the subject of, or a party to, any Federal or State judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of (a) any Federal or State securities or commodities law or regulation; (b) any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order; or (c) any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or

• the subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act (15 U.S.C. 78c(a)(26))), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act (7 U.S.C. 1(a)(29))), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Director Independence

Since our common stock is currently quoted on the OTCQB we are not subject to the corporate governance rules of listed companies. Accordingly we are not required to have independent board members or board committees. Nevertheless, our Board of Directors consists of four independent directors: Dr. Lyman, Dr. Anderson, Mr. McGee and Mr. Prioletti, as defined under the Nasdaq Marketplace Rules.

Board Committees

Audit Committee

In January 2017, we re-constituted the Audit Committee with Mr. McGee as Chairman.

The Audit Committee reviews and discusses with management and its independent auditors the audited and unaudited financial statements contained in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q. Although management is primarily responsible for the financial statements and the reporting process, including the system of internal controls and disclosure controls and procedures, the Audit Committee reviews and discusses the reporting process with management on a regular basis. The Audit Committee also discusses with the independent auditors their judgments as to the quality of our accounting principles, the reasonableness of significant judgments reflected in the financial statements and the clarity of disclosures in the financial statements, as well as such other matters as are required to be discussed with the Audit Committee under generally accepted auditing standards. Our Board of Directors has determined that at least one person, Mr. McGee, serving on the Audit Committee is an “audit committee financial expert” as defined under Item 407(d)(5)(ii) of Regulation S-K.

Compensation Committee

In the 2017 fiscal year, the full Board assumed the responsibilities of the Compensation Committee, except that Mr. Fletcher did not participate in determinations regarding the compensation to be paid to him in his role as a then named executive officer of the Company.
EXECUTIVE COMPENSATION

Compensation Philosophy

In fiscal 2018 and fiscal 2019, due to limited resources, we only paid a small amount of cash bonus compensation to certain executive officers, in no way reflective of market rates or value of services. The following discussion of our philosophy assumes we have the resources to follow that philosophy.

The Company focuses on research, development, and commercialization of our medical services and administration. In addition to our existing businesses, our strategic plan is to acquire full ownership, or controlling interests, in companies with promising pharmaceutical and related products in development.

Our future depends on the ability of our executives to obtain necessary regulatory approvals to launch products in key markets such as the United States, Canada, and Europe, as well as furthering the development of products in our pipeline through the clinical trial and regulatory processes. Attracting, retaining, and motivating key executives who can lead Generex through these processes is critical to our success. We have a small executive team that works together closely. Our executives perform multiple roles and need to be able to respond to changing market dynamics quickly.

For these reasons, we seek to ensure that our compensation programs are competitive with similarly sized companies with which we compete for executive talent. The goals of our executive compensation program are to attract and retain top executives, to motivate executives to achieve our business objectives, to align executive and shareholder interests, and to recognize individual contributions and overall business success.

The Compensation Committee of the Board of Directors evaluates the types and amounts of compensation that it believes are appropriate for our policy making executives. We refer herein to these executives as the “named executives.” In prior years, before our recent change in management, we identified our President and Chief Executive Officer, Chief Operating Officer and Chief Financial Officer as our named executives. We expect to reassess this when our Compensation Committee is fully reconstituted.

In addition to the compensation of our named executives, the Compensation Committee also reviews and approves the compensation of members of our senior management.

Historically, the key components of our executive compensation have been base salary, cash bonuses, and equity incentives, including stock bonuses, restricted stock, and stock options awarded at the discretion of our Compensation Committee and Board of Directors. As a development stage company, we have reviewed compensation of our named executives annually and at the discretion of the Compensation Committee as warranted by our financial condition and achievement of our business goals. While the elements of compensation are considered separately, the Compensation Committee ultimately considers the value of the total compensation package provided to the individual named executive.

The Compensation Committee believes the company’s compensation program must take into account the following factors:

• past levels of compensation adjustments;
• the expected transition of the company with limited revenues to a fully operating company;
• the nature of the regulatory approval process for the Company’s products; and
• the potential for growth of the company in the event that regulatory approvals are obtained.

In fiscal 2019, the Compensation Committee did not implement any changes to base salaries for any of the named executives.
In administering the executive compensation program, our Compensation Committee has relied upon market data provided on a periodic basis by external consultants, as well as its own understanding and assessment of executive compensation trends. In its consideration of compensation for the named executives, the Compensation Committee has reviewed compensation data for pharmaceutical and biotechnology companies in the past, market data provided by external compensation consultants, compensation data compiled by a third-party compensation data firm and publicly available executive compensation data for publicly traded companies.

**Use of Compensation Consultant and Benchmarking**

In the fiscal year ended July 31, 2019, the Compensation Committee did not engage any compensation consultants or engage in benchmarking activities. The Compensation Committee last undertook a comprehensive review of compensation and engaged a compensation consultant in November 2009.

**Determination of Compensation**

In prior years, the Compensation Committee typically made compensation determinations, including any increases in base salary for the next calendar year and any bonuses in respect of the prior fiscal year, before or during the first calendar quarter of each year. The Compensation Committee followed such a schedule in order to eliminate the need to award retroactive salary increases. In addition, the Compensation Committee has typically reviewed compensation arrangements in the first calendar quarter to ensure that compensation levels are appropriate in light of Generex’s financial position and performance at that time. Due to the financial position of the Company, the Committee did not follow such a schedule in fiscal 2019, as there were no salary changes. One set of equity options was awarded but not reviewed by the Compensation Committee. Because of the Company’s financial position, no increases were made to base salary and no salaries were paid, with only small bonuses being paid to certain officers in fiscal 2017, 2018 and fiscal 2019.

**Components of Compensation**

**Base Salary**

Base salary provides a fixed amount of compensation necessary to retain key executives. It is guaranteed compensation to the named executives for performance of core duties. Historically, base salaries for the named executives may be adjusted upon recommendation by the Compensation Committee and ratification by the Board of Directors, and annual base salaries for the named executives have been reviewed periodically relative to the base pay levels for each executive’s position based on the peer group.

**Cash Bonuses**

Historically, performance-based compensation has been a key component of our compensation philosophy. In the past, cash bonuses have been provided to attract, motivate, and retain highly qualified executives on a competitive basis and provide financial incentives that promote company success. From time to time in the past, the Compensation Committee has granted bonuses to reward achievement relative to specific performance objectives. In awarding bonuses, the Compensation Committee considers various factors, including the named executive’s position within Generex, attainment of specific business objectives and performance milestones, and the named executive’s individual contributions thereto. The Committee exercises discretion with respect to whether any bonuses are paid to the named executives, the amounts of any such bonuses, and the form of any such bonuses. Due to lack of capital resources, the company has not made long term commitments to any of our key personnel and has used bonuses to retain and motivate key personnel, except for two employment agreements with executive personnel.

**Long-Term Incentives and Equity Awards**

Historically, our compensation program has included long-term incentive compensation in the form of equity grants subject to a vesting schedule. We believe such incentive compensation further aligns the interests of management with those of stockholders and enhances shareholder value. Currently, we do not have any long-term cash incentive programs in place for the named executives.
Long-term equity incentive grants have been discretionary. In determining whether such grants are warranted, the Compensation Committee has considered our compensation strategy, market practice concerning long-term incentives provided to executives at peer companies and within the broader market, and the named executive’s specific roles within Generex. Typically, equity incentive awards were granted subject to vesting over a period of time and were not tied to specific performance measures.

Equity grants have historically been made through stock options under our various plans, including Generex’s 2001 Stock Option Plan, as amended, the Amended and Restated 2006 Stock Plan, and a 2017 Stock Compensation Plan, which allows grants of stock. We account for Stock-Based Compensation under ASC 718 “Compensation – Stock Compensation”, which addresses the accounting for transactions in which an entity exchanges its equity instruments for goods or services, with a primary focus on transactions in which an entity obtains employee services in share-based payment transactions. ASC 718 requires measurement of the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. Incremental compensation costs arising from subsequent modifications of awards after the grant date must be recognized.

Benefits and Perquisites

Named executives may participate in benefit plans that are offered generally to salaried employees such as short and long term disability, health and welfare benefits, and paid time off.

We provide very limited perquisites. During fiscal 2019, we did not provide any material perquisites.

We do not offer deferred compensation plans, defined benefit plans, supplemental executive retirement plans, supplemental life insurance, benefit restoration plans, or tax gross-ups on change-in-control benefits.

Employment and Severance Agreements

During fiscal 2019, no employment agreements, plans or arrangements were effective, with any of our named executives whether written or unwritten, relating to compensation, termination of employment or a change in control. There are no benefits currently made available to our named executives which are in addition to benefits available generally to salaried employees.

Subsequent to the end of fiscal 2019, we entered into employment agreements with certain officers which provide for cash compensation as well as significant equity awards and incentives.

Other Benefit Plans

We have no defined benefit or actuarial pension plans.

Certain officers held options at the end of fiscal 2019 under the 2017 stock compensation plan, as noted in the accompanying tables. Under the terms of the 2006 Plan, unvested stock options and restricted stock will become exercisable or unrestricted, as applicable, thirty days prior to the change-in-control event and such acceleration is not conditioned upon the termination of a participant’s employment with Generex. The 2006 Plan further provides that if Generex is not the surviving corporation as a result of a change in control, all outstanding options that are not exercised will be assumed by, or replaced with comparable options or rights by, the surviving corporation, and outstanding grants of restricted stock will be converted to similar grants of equity in the surviving corporation.

Under the 2017 Plan, in the event a plan participant is terminated without cause, or the participant terminates his or her employment for good reason, options and restricted stock that is still outstanding following a change in control shall become fully vested and exercisable with all restrictions lapsed.
Tax and Accounting Considerations

Historically, the Compensation Committee has considered implications of tax and accounting requirements impacting compensation programs from the perspective of the Company and the individual named executives. The Compensation Committee may also consider sections of the tax code which impact Generex or individual taxpayers. For U.S. taxpayers, the Committee structures its programs to comply with Section 409A of the Internal Revenue Code.

Summary Compensation Table

<table>
<thead>
<tr>
<th>Name &amp; Principal Position</th>
<th>Year</th>
<th>Salary</th>
<th>Bonus</th>
<th>Stock Awards</th>
<th>Option Awards(1)</th>
<th>Non-Equity Incentive Plan Compensation</th>
<th>Non-Qualified Deferred Compensation Earnings</th>
<th>All Other Compensation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Moscato, CEO, President and Chairman of the Board</td>
<td>2016-2017</td>
<td>—</td>
<td>$ 50,000</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 50,000</td>
</tr>
<tr>
<td></td>
<td>2017-2018</td>
<td>—</td>
<td>$ 100,000</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 100,000</td>
</tr>
<tr>
<td></td>
<td>2018-2019</td>
<td>$ 103,144</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 103,144</td>
</tr>
<tr>
<td>Terry Thompson, COO</td>
<td>2016-2017</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2017-2018</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2018-2019</td>
<td>$ 42,500</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 1,544,825</td>
</tr>
<tr>
<td>Anthony S. Crisci, CLO</td>
<td>2016-2017</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2017-2018</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2018-2019</td>
<td>$ 30,000</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 822,039</td>
</tr>
<tr>
<td>Mark Corrao</td>
<td>2016-2017</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>CFO</td>
<td>2017-2018</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2018-2019</td>
<td>$ 27,540</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 37,432</td>
</tr>
<tr>
<td>Anthony J. Dolisi, Chief Commercial Officer</td>
<td>2016-2017</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2017-2018</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2018-2019</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>2018-2019</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$ 819,825</td>
</tr>
</tbody>
</table>

88
(1) The Company estimated the fair value of each stock option on the grant date using a Black-Scholes option-pricing model. Black-Scholes option-pricing models requires the Company to make predictive assumptions regarding future stock price volatility, recipient exercise behavior, and dividend yield. The Company estimated the future stock price volatility using the historical volatility over the expected term of the option. The following assumptions were used in the Black-Scholes option-pricing model:

<table>
<thead>
<tr>
<th>Exercise Price</th>
<th>$0.11 – 1.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected term</td>
<td>5 to 10 years</td>
</tr>
<tr>
<td>Risk-free interest rate</td>
<td>2.03% - 3.15%</td>
</tr>
<tr>
<td>Expected volatility</td>
<td>135.2% - 222.2%</td>
</tr>
<tr>
<td>Stock price at valuation date</td>
<td>$0.11 – $1.85</td>
</tr>
</tbody>
</table>

### Outstanding Equity Awards at Fiscal Year-End

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Securities Underlying Exercisable Options (#)</th>
<th>Number of Securities Underlying Unexercisable Options (#)</th>
<th>Number of Securities Underlying Exercised Options (#)</th>
<th>Number of Securities Underlying Unexercised Options (#)</th>
<th>Option Exercise Price ($)</th>
<th>Option Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Moscato</td>
<td>140,000</td>
<td>280,000</td>
<td>-</td>
<td>-</td>
<td>$0.11</td>
<td>10/03/2028</td>
</tr>
<tr>
<td>Terry Thompson</td>
<td>859,375</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$0.64</td>
<td>11/01/2028</td>
</tr>
<tr>
<td></td>
<td>250,000</td>
<td>500,000</td>
<td>-</td>
<td>-</td>
<td>$0.78</td>
<td>12/12/2028</td>
</tr>
<tr>
<td></td>
<td>350,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$1.02</td>
<td>5/30/2024</td>
</tr>
<tr>
<td>Anthony S. Crisci</td>
<td>24,500</td>
<td>49,000</td>
<td>-</td>
<td>-</td>
<td>$0.11</td>
<td>10/03/2028</td>
</tr>
<tr>
<td></td>
<td>468,750</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$0.64</td>
<td>11/01/2028</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>200,000</td>
<td>-</td>
<td>-</td>
<td>$0.78</td>
<td>12/12/2028</td>
</tr>
<tr>
<td></td>
<td>262,500</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$1.02</td>
<td>5/30/2024</td>
</tr>
<tr>
<td>Mark Corrao</td>
<td>31,500</td>
<td>63,000</td>
<td>-</td>
<td>-</td>
<td>$0.11</td>
<td>10/03/2028</td>
</tr>
<tr>
<td>Anthony J. Dolisi</td>
<td>315,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$1.02</td>
<td>05/30/2024</td>
</tr>
<tr>
<td></td>
<td>500,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$1.02</td>
<td>05/30/2024</td>
</tr>
</tbody>
</table>

None of our officers exercised options in the fiscal year ended July 31, 2019.
## Director Compensation

### DIRECTOR COMPENSATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Fees Earned or Paid in Cash</th>
<th>Stock Awards</th>
<th>Option Awards(^{(1)})</th>
<th>Non-Equity Incentive Plan Compensation</th>
<th>Change in Pension Value and Nonqualified Deferred Compensation Earnings</th>
<th>All Other Compensation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Ro</td>
<td>$22,000</td>
<td>—</td>
<td>$2,198</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$24,198</td>
</tr>
<tr>
<td>Dr. Gary Lyman*</td>
<td>—</td>
<td>—</td>
<td>$2,198</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$2,198</td>
</tr>
<tr>
<td>Dr. Craig Eagle*</td>
<td>—</td>
<td>—</td>
<td>$2,198</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$2,198</td>
</tr>
<tr>
<td>Brian McGee*</td>
<td>—</td>
<td>—</td>
<td>$2,198</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$2,198</td>
</tr>
<tr>
<td>Joseph Moscato</td>
<td>$103,144</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>$103,144</td>
</tr>
<tr>
<td>Lawrence Salvo</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mark Prioletti*</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Omar Gzouli*</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

* Indicates Independent Director. \(^{1}\) Mr. Gzouli resigned as a director in November 2019.

(1) The Company estimated the fair value of each stock option on the grant date using a Black-Scholes option-pricing model. Black-Scholes option-pricing models requires the Company to make predictive assumptions regarding future stock price volatility, recipient exercise behavior, and dividend yield. The Company estimated the future stock price volatility using the historical volatility over the expected term of the option. The following assumptions were used in the Black-Scholes option-pricing model:

<table>
<thead>
<tr>
<th>Year Ended July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Price</td>
</tr>
<tr>
<td>Expected term</td>
</tr>
<tr>
<td>Risk-free interest rate</td>
</tr>
<tr>
<td>Expected volatility</td>
</tr>
<tr>
<td>Stock price at valuation date</td>
</tr>
</tbody>
</table>
Equity Compensation Plan Information

The following table provides certain information with respect to all of the Company’s equity compensation plans in effect as of July 31, 2019.

<table>
<thead>
<tr>
<th>Plan category</th>
<th>Number of securities to be issued upon exercise of outstanding options, warrants and rights</th>
<th>Weighted-average exercise price of outstanding options, warrants and rights</th>
<th>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity compensation plans approved by security holders</td>
<td>7,988,675</td>
<td>$ 0.84</td>
<td>234,846,325</td>
</tr>
<tr>
<td>Equity compensation plans not approved by security holders</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,988,675</td>
<td>$ 0.84</td>
<td>234,846,325</td>
</tr>
</tbody>
</table>

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The table below sets forth information regarding the beneficial ownership of the common stock by (i) our directors and named executive officers (including persons who served as principal executive officer and principal financial officer during a portion of the fiscal year ended July 31, 2019) and all the named executives and directors as a group and (ii) any other person or group that to our knowledge beneficially owns more than five percent of our outstanding shares of common stock. Except as indicated below, the address of each holder is c/o Generex Biotechnology Corporation, 10102 USA Today Way, Miramar, Florida 33025.

The information contained in this table is as of January 31, 2020. At that date, we had 50,462,477 shares of common stock outstanding.

A person is deemed to be a beneficial owner of shares if he has the power to vote or dispose of the shares. This power can be exclusive or shared, direct or indirect. In addition, a person is considered by SEC rules to beneficially own shares underlying options or warrants that are presently exercisable or that will become exercisable within sixty (60) days.

<table>
<thead>
<tr>
<th>Name of Beneficial Owner</th>
<th>Number of Shares</th>
<th>Percent of Class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Named Executives and Directors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joseph Moscato</td>
<td>312,800</td>
<td>*</td>
</tr>
<tr>
<td>Brian T. McGee</td>
<td>23,100</td>
<td>*</td>
</tr>
<tr>
<td>James Anderson(2)</td>
<td>21,000</td>
<td>*</td>
</tr>
<tr>
<td>Lawrence Salvo</td>
<td>320,345</td>
<td>*</td>
</tr>
<tr>
<td>Andrew Ro(3)</td>
<td>94,500</td>
<td>*</td>
</tr>
<tr>
<td>Richard Purcell(4)</td>
<td>369,500</td>
<td>*</td>
</tr>
<tr>
<td>Jason Terrell(5)</td>
<td>169,500</td>
<td>*</td>
</tr>
<tr>
<td>Mark Corrao(6)</td>
<td>94,500</td>
<td>*</td>
</tr>
<tr>
<td>Craig Eagle(7)</td>
<td>21,000</td>
<td>*</td>
</tr>
<tr>
<td>Terry Thompson(8)</td>
<td>2,379,375</td>
<td>4.7%</td>
</tr>
<tr>
<td>Anthony Crisci(9)</td>
<td>1,104,750</td>
<td>2.1%</td>
</tr>
<tr>
<td>Anthony Dolisi(10)</td>
<td>815,000</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Named Executives and Directors as a group (12 persons)</strong></td>
<td>5,725,370</td>
<td>10.3%</td>
</tr>
<tr>
<td><strong>Other Holders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BH-Sanford, LLC(11)</td>
<td>2,400,000</td>
<td>5.0%</td>
</tr>
<tr>
<td>Stephen Berkman(12)</td>
<td>1,609,892</td>
<td>3.4%</td>
</tr>
<tr>
<td>Creek Mountain Partners(13)</td>
<td>4,000,000</td>
<td>8.4%</td>
</tr>
</tbody>
</table>

* Less than 1%.

(1) Consists of shares underlying 23,100 options.
(2) Consists of shares underlying 21,000 options.
(3) Consists of shares underlying 94,500 options.
(4) Consists of shares underlying 94,500 options.
(5) Consists of shares underlying 169,500 options.
(6) Consists of shares underlying 94,500 options issued under various Company stock option and equity plans.
(7) Consists of shares underlying 21,000 options issued under various Company stock option and equity plans.
(8) Consists of shares underlying 2,379,375 options issued under various Company stock option and equity plans.
(9) Consists of shares underlying 1,104,750 options issued under various Company stock option and equity plans.
(10) Includes shares underlying 1,104,750 options issued under various Company stock option and equity plans.
(11) The address of the holder is 7262 Fisher Island Beach, Miami Beach, FL 33109.
(12) The address of the holder is 103 Stone Bridge Lane, Bedford Hills, NY 10507.
(13) Based on Schedule 13G filed November 29, 2019. The address of the stockholder is PO Box 1445, Exmore, Virginia 23350.
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Certain Relationships and Related Transactions

CFO Squad

The CFO Squad, LLC, provides accounting, pre-audit services and financial reporting services to us. Our CFO, Mark Corrao, is an advisor to the CFO Squad. We paid CFO Squad $157,750 and $174,000 for accounting and financial services in the fiscal years ended July 31, 2018 and 2019, respectively.

DESCRIPTION OF SECURITIES

The following description of our capital stock is qualified by reference to our certificate of incorporation, as amended, which is filed as an exhibit to this registration statement.

Authorized Capital Stock

Our authorized capital stock consists of 750,000,000 shares of common stock, $0.001 par value, and 1,000,000 shares of preferred stock, $0.001 par value. As of January 31, 2020, there were 50,462,477 shares of common stock outstanding and no preferred stock is outstanding. As of January 31, 2020, there were approximately 103 holders of record of our common stock.

Common Stock

Holders of common stock are entitled to one vote for each share owned as of record on all matters on which shareholders may vote. Holders of common stock do not have cumulative voting rights in the election of directors. Therefore, holders of more than 50% of the outstanding shares can elect the entire Board of Directors. The holders of common stock are entitled, upon liquidation or dissolution of the Company, to receive pro rata all remaining assets available for distribution to stockholders after payment to any preferred shareholders who may have preferential rights. The common stock has no preemptive or other subscription rights, and there are no conversion rights or redemption provisions. All outstanding shares of common stock are validly issued, fully paid, and nonassessable.

Preferred Stock

Our Certificate of Incorporation, as amended, authorizes our Board of Directors to issue preferred stock from time to time with such designations, preferences, conversion or other rights, voting powers, restrictions, dividends or limitations as to dividends or other distributions, qualifications or terms or conditions of redemption as shall be determined by the Board of Directors for each class or series of stock. Preferred stock is available for possible future financings or acquisitions and for general corporate purposes without further authorization of stockholders unless such authorization is required by applicable law, or the rules of any securities exchange or market on which our stock is then listed or admitted to trading.
The common stock offered by this prospectus is being offered by the selling stockholders. The common stock may be sold or distributed from time to time by the selling stockholders directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this prospectus could be effected in one or more of the following methods:

- ordinary brokers’ transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents
- “at the market” into an existing market for the common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state’s registration or qualification requirement is available and complied with.

Oasis is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act.

Brokers, dealers, underwriters or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Oasis can presently estimate the amount of compensation that any agent will receive.

We know of no existing arrangements between Oasis or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters or dealers and any compensation from the selling stockholder, and any other required information.

We will pay the expenses incident to the registration, offering, and sale of the shares to the selling stockholders. We have agreed to indemnify the selling stockholders and certain other persons against certain liabilities in connection with the offering of shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Oasis has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Oasis specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

We have advised the selling stockholders that they are required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholders, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.
LEGAL MATTERS

The validity of the securities being offered by this prospectus has been passed upon for us by Sichenzia Ross Ference LLP, New York, New York.

EXPERTS

The consolidated financial statements of Generex Biotechnology Corporation as of and for the year ended July 31, 2019 have been so included in reliance on the report of Mazars USA LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Generex Biotechnology Corporation as of and for the year ended July 31, 2018 have been so included in reliance on the report of MNP LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly, special reports, and other information with the SEC. These reports and other information are available at the SEC’s website at http://www.sec.gov.

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules and regulations of the SEC. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus. The registration statement is available at the SEC’s website.

We also maintain a website at www.generex.com, through which you can access our SEC filings. The information set forth on our website is not part of this prospectus.
### GENEREX BIOTECHNOLOGY CORPORATION AND SUBSIDIARIES
### UNAUDITED CONDENSED INTERIM CONSOLIDATED BALANCE SHEETS

<table>
<thead>
<tr>
<th></th>
<th>October 31, 2019</th>
<th>July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$540,254</td>
<td>$298,485</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>154,575</td>
<td>36,311</td>
</tr>
<tr>
<td>Inventory, net</td>
<td>727,263</td>
<td>363,008</td>
</tr>
<tr>
<td>Other current assets</td>
<td>451,344</td>
<td>275,731</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>1,873,436</td>
<td>973,535</td>
</tr>
<tr>
<td><strong>Property and equipment</strong></td>
<td>531,888</td>
<td>499,993</td>
</tr>
<tr>
<td>Goodwill</td>
<td>38,901,126</td>
<td>38,297,573</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>10,802,442</td>
<td>9,834,269</td>
</tr>
<tr>
<td>Operating lease right-of-use assets - net</td>
<td>97,553</td>
<td>—</td>
</tr>
<tr>
<td>Other assets, net</td>
<td>33,804</td>
<td>30,621</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$52,240,249</td>
<td>$49,635,991</td>
</tr>
</tbody>
</table>

| **LIABILITIES AND STOCKHOLDERS’ EQUITY** |                  |               |
| **Current Liabilities**              |                  |               |
| Accounts payable and accrued expenses | $22,447,533      | $19,055,822   |
| Notes payable, current              | 10,163,610       | 8,368,379     |
| Loans from related parties          | 72,612           | 19,700        |
| Operating lease liabilities - current | 75,892           | —             |
| Deferred tax liability              | 1,502,122        | 1,502,122     |
| **Total Current Liabilities**       | 34,261,769       | 28,946,023    |
| **Derivative liability**            | 8,797,354        | 7,820,283     |
| Common stock payable                | 215,793          | 1,123,188     |
| Operating lease liabilities - net of current portion | 22,048 | — |
| **Total Liabilities**               | 43,296,964       | 37,889,494    |
| Redeemable non-controlling interest (Note 12) | 4,073,898      | 4,073,898     |
| **Stockholders’ equity (Note 11)** |                  |               |
| Common stock, $0.001 par value; authorized 750,000,000 shares; 44,336,023 and 62,290,940 issued and outstanding at October 31, 2019 and July 31, 2019, respectively | 44,335 | 62,290 |
| Additional paid-in capital          | 417,081,503      | 408,566,529   |
| Accumulated deficit                 | (427,853,820)    | (418,727,875) |
| Accumulated other comprehensive income | 796,922          | 797,216       |
| Non-controlling interest            | 14,800,447       | 16,974,439    |
| **Total Stockholders’ Equity**      | 4,869,387        | 7,672,599     |
| **TOTAL LIABILITIES AND STOCKHOLDERS’ EQUITY** | $52,240,249      | $49,635,991   |

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.
### Three Months Ended October 31,

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$721,661</td>
<td>$1,719,148</td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td>133,618</td>
<td>870,621</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>588,043</td>
<td>848,527</td>
</tr>
<tr>
<td>Operating expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development</td>
<td>338,734</td>
<td>180,067</td>
</tr>
<tr>
<td>Bad debt expense</td>
<td>10,981</td>
<td>—</td>
</tr>
<tr>
<td>General and administrative</td>
<td>4,787,039</td>
<td>2,272,641</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>5,316,754</td>
<td>2,452,708</td>
</tr>
<tr>
<td>Operating Loss</td>
<td>(4,548,711)</td>
<td>(1,604,181)</td>
</tr>
<tr>
<td>Other Income (Expense):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest expense</td>
<td>(2,516,113)</td>
<td>(165,716)</td>
</tr>
<tr>
<td>Interest income</td>
<td>452</td>
<td>6,660</td>
</tr>
<tr>
<td>Changes in fair value of contingent purchase consideration</td>
<td>—</td>
<td>19,545,098</td>
</tr>
<tr>
<td>Change in fair value of derivative liability</td>
<td>(1,836,208)</td>
<td>—</td>
</tr>
<tr>
<td>Loss on settlement of debt</td>
<td>(403,214)</td>
<td>—</td>
</tr>
<tr>
<td>Other income, net</td>
<td>(8,753)</td>
<td>3,886</td>
</tr>
<tr>
<td>Net (Loss) Income</td>
<td>(9,312,547)</td>
<td>17,785,747</td>
</tr>
<tr>
<td>Net loss attributable to noncontrolling interests</td>
<td>(186,602)</td>
<td>(88,256)</td>
</tr>
<tr>
<td>Net (Loss) Income Available to Common Stockholders</td>
<td>$9,125,945</td>
<td>$17,874,003</td>
</tr>
<tr>
<td>Net Income per Common Share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>$ (0.17)</td>
<td>$0.78</td>
</tr>
<tr>
<td>Diluted</td>
<td>$ (0.17)</td>
<td>$ 0.33</td>
</tr>
<tr>
<td>Shares Used to Compute Income per Share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>53,186,407</td>
<td>22,806,777</td>
</tr>
<tr>
<td>Diluted</td>
<td>53,186,407</td>
<td>54,699,198</td>
</tr>
<tr>
<td>Comprehensive (loss) income:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net (loss) income</td>
<td>$ (9,125,945)</td>
<td>$17,874,003</td>
</tr>
<tr>
<td>Change in foreign currency translation adjustments</td>
<td>(294)</td>
<td>1,626</td>
</tr>
<tr>
<td>Comprehensive (Loss) Income Available to Common Stockholders</td>
<td>$ (9,126,239)</td>
<td>$17,875,629</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements
## GENEREX BIOTECHNOLOGY CORPORATION AND SUBSIDIARIES
### UNAUDITED CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

<table>
<thead>
<tr>
<th></th>
<th>Preferred Stock</th>
<th>Common Stock</th>
<th>Common Stock Payable</th>
<th>Additional Paid-in Capital</th>
<th>Accumulated Other Comprehensive Income</th>
<th>Sub Total</th>
<th>Non-controlling Interest</th>
<th>Stockholders’ Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance at July 31, 2018</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares</td>
<td>79,590 $4</td>
<td>22,430,121</td>
<td>$2,168,951</td>
<td>$368,388,265</td>
<td>$(409,386,468)</td>
<td>798,422</td>
<td>$38,008,396</td>
<td>$(5,576,272)</td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$(43,584,668)</td>
</tr>
<tr>
<td>Investment in subsidiary by noncontrolling interest</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>—</td>
<td>—</td>
<td>91,027</td>
<td>91,027</td>
</tr>
<tr>
<td>Issuance of common stock payable</td>
<td>— —</td>
<td>5,996,928</td>
<td>5,997</td>
<td>(1,917,334)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of stock options</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>103,194</td>
<td>—</td>
<td>103,194</td>
<td>103,194</td>
</tr>
<tr>
<td>Currency translation adjustment</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>—</td>
<td>1,626</td>
<td>1,626</td>
<td>—</td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>17,874,003</td>
<td>17,874,003</td>
<td>(88,256)</td>
<td>17,785,747</td>
</tr>
<tr>
<td><strong>Balance at October 31, 2018</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares</td>
<td>79,590 $4</td>
<td>28,427,049</td>
<td>$251,617</td>
<td>$370,402,796</td>
<td>$(391,512,465)</td>
<td>800,048</td>
<td>$(20,029,573)</td>
<td>$(5,573,501)</td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td>62,290</td>
<td>— $408,566,529</td>
<td>$418,725,875</td>
<td>$16,974,439</td>
<td>408,566</td>
<td>$9,301,840</td>
<td>$7,672,599</td>
</tr>
<tr>
<td>Stock compensation expense</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>787,458</td>
<td>—</td>
<td>787,458</td>
<td>787,458</td>
</tr>
<tr>
<td>Issuance of common stock payable</td>
<td>— —</td>
<td>296,793</td>
<td>297</td>
<td>921,598</td>
<td>—</td>
<td>921,895</td>
<td>—</td>
<td>921,895</td>
</tr>
<tr>
<td>Conversion of debt to equity</td>
<td>— —</td>
<td>1,164,190</td>
<td>1,164</td>
<td>1,736,837</td>
<td>—</td>
<td>1,736,837</td>
<td>—</td>
<td>1,736,837</td>
</tr>
<tr>
<td>Issuance of common stock for acquisitions</td>
<td>— —</td>
<td>960,000</td>
<td>960</td>
<td>1,150,992</td>
<td>—</td>
<td>1,151,952</td>
<td>—</td>
<td>1,151,952</td>
</tr>
<tr>
<td>Reduction of derivative liabilities</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>1,911,487</td>
<td>—</td>
<td>1,911,487</td>
<td>1,911,487</td>
</tr>
<tr>
<td>Cancellation of shares</td>
<td>— —</td>
<td>(20,375,900)</td>
<td>(20,376)</td>
<td>20,376</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Purchase of shares in subsidiary</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>1,987,390</td>
<td>—</td>
<td>1,987,390</td>
<td>(1,987,390)</td>
</tr>
<tr>
<td>Currency translation adjustment</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>(294)</td>
<td>(294)</td>
<td>—</td>
<td>(294)</td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>— —</td>
<td>(9,125,945)</td>
<td>(9,125,945)</td>
<td>(186,602)</td>
<td>(9,312,547)</td>
</tr>
<tr>
<td><strong>Balance at October 31, 2019</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares</td>
<td>— $44,336,023</td>
<td>44,335</td>
<td>— $417,081,503</td>
<td>$427,853,820</td>
<td>$14,800,447</td>
<td>4,869,387</td>
<td>$9,931,060</td>
<td>$4,869,387</td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.
### CASH FLOWS FROM OPERATING ACTIVITIES

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net (Loss) Income</td>
<td>$(9,312,547)</td>
<td>$17,785,747</td>
</tr>
<tr>
<td>Adjustments to reconcile net (loss) income to net cash used in operating activities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>203,273</td>
<td>25,664</td>
</tr>
<tr>
<td>Amortization of operating lease right-of-use assets</td>
<td>18,887</td>
<td>—</td>
</tr>
<tr>
<td>Stock compensation expense</td>
<td>787,458</td>
<td>103,194</td>
</tr>
<tr>
<td>Loss on settlement of debt</td>
<td>403,214</td>
<td>—</td>
</tr>
<tr>
<td>Changes in fair value of contingent purchase consideration</td>
<td>—</td>
<td>(19,545,097)</td>
</tr>
<tr>
<td>Amortization of debt discount</td>
<td>2,065,835</td>
<td>—</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities - convertible notes</td>
<td>(1,131,156)</td>
<td>—</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities - convertible warrants</td>
<td>(66,456)</td>
<td>—</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities - downside protection</td>
<td>3,033,820</td>
<td>—</td>
</tr>
<tr>
<td>Bad debt expense</td>
<td>10,981</td>
<td>—</td>
</tr>
<tr>
<td>Changes in operating assets and liabilities, net of effect of acquisitions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>4,024</td>
<td>721</td>
</tr>
<tr>
<td>Inventory</td>
<td>(98,184)</td>
<td>242,235</td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>2,366,230</td>
<td>1,006,344</td>
</tr>
<tr>
<td>Loans from related parties</td>
<td>52,912</td>
<td>—</td>
</tr>
<tr>
<td>Other current assets</td>
<td>(163,596)</td>
<td>24,605</td>
</tr>
<tr>
<td>Other current liabilities</td>
<td>(18,500)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Net cash used in operating activities</strong></td>
<td>(1,843,805)</td>
<td>(356,587)</td>
</tr>
</tbody>
</table>

### CASH FLOWS FROM INVESTING ACTIVITIES:

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of property and equipment</td>
<td>(4,451)</td>
<td>(6,168)</td>
</tr>
<tr>
<td>Cash received in acquisition of a business, net of cash paid</td>
<td>49,305</td>
<td>1,052,537</td>
</tr>
<tr>
<td><strong>Net cash provided by investing activities</strong></td>
<td>44,854</td>
<td>1,046,369</td>
</tr>
</tbody>
</table>

### CASH FLOWS FROM FINANCING ACTIVITIES

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment of notes payable</td>
<td>(935,731)</td>
<td>—</td>
</tr>
<tr>
<td>Proceeds from note payable</td>
<td>2,976,745</td>
<td>534,940</td>
</tr>
<tr>
<td>Investment in subsidiary by noncontrolling interest</td>
<td>—</td>
<td>91,027</td>
</tr>
<tr>
<td><strong>Net cash provided by financing activities</strong></td>
<td>2,041,014</td>
<td>625,967</td>
</tr>
</tbody>
</table>

Effects of currency translation on cash and cash equivalents | (294) | 1,626 |
Net increase in cash and cash equivalents | 241,769 | 1,317,375 |
Cash and cash equivalents, beginning of period | 298,485 | 1,046,365 |
Cash and cash equivalents, end of period | $540,254 | $2,363,740 |

### Supplemental Disclosure of Cash Flow Information

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of derivative liabilities</td>
<td>$1,911,487</td>
<td>—</td>
</tr>
<tr>
<td>Discount on derivative liability upon issuance of debt</td>
<td>$1,052,349</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of common stock for conversion of debt</td>
<td>$1,694,851</td>
<td>—</td>
</tr>
<tr>
<td>Recording of Right of Use Asset and Liability</td>
<td>$116,440</td>
<td>—</td>
</tr>
<tr>
<td>Increase common stock payable</td>
<td>$14,500</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of shares--common stock payable</td>
<td>$921,895</td>
<td>—</td>
</tr>
<tr>
<td>Note payable issued for acquisition of a business</td>
<td>$15,000,000</td>
<td>—</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements
Note 1 – Organization of Business and Going Concern:

Generex Biotechnology Corporation (“Generex” or the “Company”), was formed in the State of Delaware on September 4, 1997 and its year-end is July 31. It is engaged primarily in the research and development of drug delivery systems and the use of the Company’s proprietary technology for the administration of formulations of large molecule drugs to the oral (buccal) cavity using a hand-held aerosol applicator; and through the Company’s wholly-owned subsidiary, Antigen Express, Inc. (“Antigen”), has undertaken work on immunomedicines incorporating proprietary vaccine formulations.

On January 18, 2017, the Company closed an Acquisition Agreement pursuant to which the Company acquired a 51% interest in NuGenerex Diagnostics LLC “NGDx,” formerly known as Hema Diagnostic Systems, LLC, a Florida limited liability company established in December 2000 to market and distribute rapid test devices including infectious diseases. Since 2002, NGDx has been developing an expanding line of rapid diagnostic tests (RDTs) including such diseases as Human Immunodeficiency Virus (HIV) – 1/2, tuberculosis, malaria, hepatitis, syphilis, typhoid and dengue as well as other infectious diseases. Subsequently, on December 1, 2018, the Company closed the acquisition of the remaining 49% interest in NGDx to become a wholly owned subsidiary of the Company.

On October 3, 2018, the Company entered into an Asset Purchase Agreement with Veneto Holdings, L.L.C. (“Veneto”) to purchase certain assets of Veneto and its subsidiaries. The Agreement bifurcated the closing. On October 3, 2018 (the “First Closing”), the Company purchased substantially all the operating assets of Veneto including (a) system of dispensing pharmacies, (b) one central adjudicating pharmacy, (c) a wholesale pharmaceutical purchasing company, and (d) an in-network laboratory. On November 1, 2018 the Company consummated the acquisition of the Second Closing Assets, consisting primarily of Veneto’s management services organization business and two additional ancillary services.

In March 2019, the Company changed its business model to no longer utilize their existing pharmacies. Going forward Veneto will conduct business exclusively through their management services organization (“MSO”) and by entering into more ancillary provider service agreements with third party pharmacies as an effort to reduce fixed costs and salaries. This was made practicable due to the decrease in overall script volume coupled with delays in the Company being able to receive operating licenses from various government agencies.

On January 7, 2019, the Company closed two separate Acquisition Agreements pursuant to which the Company acquired a 51% interest in both Regentys Corporation (“Regentys”) and Olaregen Therapeutix Inc. (“Olaregen”). Regentys is a regenerative medicine company focused on developing novel treatments for patients with gastrointestinal (GI) disorders. Olaregen is a New York based regenerative medicine company that is preparing to launch its proprietary, patented, wound conforming gel matrix, Excellagen, an FDA 510K cleared wound healing product. In the first quarter of 2020 the Company acquired increased its ownership of Olaregen to 77%.

On August 1, 2019, the Company, through its wholly owned subsidiary NDS, closed on Asset Purchase Agreements (the “APAs”) for the purchase of substantially all the operating assets of MediSource Partners, LLC (“MediSource”) and Pantheon Medical - Foot & Ankle, LLC (“Pantheon”) (Note – 16).

MediSource contracts with vendors (including Pantheon) for nationwide distribution of implants and devices for spine, hips, knees, foot, ankle, hand, and wrist surgeries. Additional product lines include biologics (blood, bone, tissue, and stem cells), durable medical equipment, and soft goods. MediSource also supplies kits to process bone marrow aspirates and platelet rich plasma biologics at the time of surgery.

Pantheon sells a physician friendly, “all-in-one,” integrated kit that includes plates, screws, and tools required for orthopedic surgeons and podiatrists conducting foot and ankle surgeries. Over the next three years, Pantheon expects to develop and submit several new product lines to the FDA, which will include cannulated surgical screws and surgical staples, as well as a proprietary Hammertoe System.
Going Concern

The accompanying unaudited condensed interim consolidated financial statements have been prepared in conformity with US GAAP, which contemplate continuation of the Company as a going concern. The Company has experienced recurring net losses and negative cash flows from operations since inception and has an accumulated deficit of approximately $428 million and a working capital deficiency of approximately $32.5 million at October 31, 2019. The Company has funded its activities to date almost exclusively from debt and equity financings.

The Company will continue to require substantial funds to implement its new investment acquisition plans. Management’s plans in order to meet its operating cash flow requirements include financing activities such as private placements of its common stock, preferred stock offerings, and issuances of debt and convertible debt instruments. Management is also actively pursuing financial and strategic alternatives, including strategic investments and divestitures, industry collaboration activities and strategic partners.

These conditions raise substantial doubt about the Company’s ability to continue as a going concern for a period of twelve months from the balance sheet date. There are no assurances that such additional funding will be achieved and that the Company will succeed in its future operations. The unaudited condensed interim consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts of liabilities that might be necessary should the Company be unable to continue as a going concern. The Company’s inability to obtain required funding in the near future or its inability to obtain funding on favorable terms will have a material adverse effect on its operations and strategic development plan for future growth. If the Company cannot successfully raise additional capital and implement its strategic development plan, its liquidity, financial condition and business prospects will be materially and adversely affected, and the Company may have to cease operations.

Note 2 – Summary of Significant Accounting Policies:

Basis of Presentation

The accompanying unaudited consolidated financial statements of the Company and its subsidiaries have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments, which include only normal recurring adjustments, considered necessary for a fair presentation have been included.

The Company’s fiscal year ends on July 31 of each calendar year. Each reference below to a fiscal year refers to the fiscal year ending in the calendar year indicated.

Operating results for the three months ended October 31, 2019 are not necessarily indicative of the results that may be expected for the fiscal year ending July 31, 2020. The balance sheet at October 31, 2019 does not include all of the information and footnotes required by U.S. GAAP for complete financial statements. Therefore, these condensed financial statements should be read in conjunction with the Company’s audited financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the year ended July 31, 2019 as filed with the U.S. Securities and Exchange Commission (“SEC”).
Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

Business Combinations

 Acquisition cost is measured as the aggregate of the fair value at the date of acquisition of the assets given, equity instruments issued, or liabilities incurred or assumed. Acquisition related costs are expensed as incurred (except for those costs arising on the issue of equity instruments which are recognized directly in equity). Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured at fair value on the acquisition date. Goodwill is measured as the excess of the acquisition cost and the amount of any non-controlling interest, over the fair value of the identifiable net assets acquired.

Revenue Recognition

It is the Company’s policy that revenues from product sales is recognized in accordance with ASC 606 “Revenue Recognition.” Five basic steps must be followed before revenue can be recognized; (1) Identifying the contract(s) with a customer that creates enforceable rights and obligations; (2) Identifying the performance obligations in the contract, such as promising to transfer goods or services to a customer; (3) Determining the transaction price, meaning the amount of consideration in a contract to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer; (4) Allocating the transaction price to the performance obligations in the contract, which requires the company to allocate the transaction price to each performance obligation on the basis of the relative standalone selling prices of each distinct good or services promised in the contract; and (5) Recognizing revenue when (or as) the entity satisfies a performance obligation by transferring a promised good or service to a customer. The amount of revenue recognized is the amount allocated to the satisfied performance obligation. Adoption of ASC 606 has not changed the timing and nature of the Company’s revenue recognition and there has been no material effect on the Company’s financial statements.

Revenue from the pharmacy services is recognized when the prescription is dispensed (picked up by the patient or shipped to the patient using common carrier or delivered by the pharmacies own personnel). At the time of dispensing each pharmacy has a contract with the insurance payor (item (i)); the insurance payor has accepted the claim for reimbursement from the pharmacy (item ii) and informed the pharmacy how much will be paid for the prescription (item (iii)); the insurance payor is now legally obligated to make payment on the accepted claim within a given period proscribed by statute (item (iv)); and, the prescription has been taken from the pharmacy inventory, placed into an individually labeled container specific to the patient, and the patient is able to take possession of the prescription (item (v)). Shipment to or pick up by the patient is the first time all criteria for revenue recognition have been met.

Revenue from the laboratory services is recognized upon the completion of accessions (the requested laboratory test has been performed and the report has been issued to the requesting physician). After the test has been performed and reported, the insurance company and/or patient has an obligation to pay for medically necessary laboratory tests (items (i) and (ii)). Unlike the pharmacy services model, laboratory services are provided prior to insurance company approval; as a result, the seller’s price to buyer is not known until payment is provided (items (iii) and (iv)). Based on historical collections, the Company estimates the expected revenues associated with similar tests and recognizes the revenue when testing results have been provided (v).

Revenue from NGDs is recognized upon payment at the time the product(s) is released (shipment delivered using a common carrier), and the control is transferred which is simultaneous to when payment received and accepted.

Revenue from product sales of Olaregen’s Excellagen® is recorded at the net sales price, or “transaction price,” which includes estimates of variable consideration that result from coupons, discounts, chargebacks and distributor fees, processing fees, as well as allowances for returns and government rebates. The Company constrains revenue by giving consideration to factors that could otherwise lead to a probable reversal of revenue. Where appropriate, the Company utilizes the expected value method to determine the appropriate amount for estimates of variable consideration based on factors such as the Company’s historical experience, contractual arrangement and specific known market events and trends. Collectability of revenue is reasonably assured based on historical evidence of collectability between the Company and its customers.

Revenue from the provision of management services is recognized in accordance with the contractual terms of the relationship (item i); however, the current agreements in place typically specify that a percentage of the gross margin associated with the third-parties’ sales that the Company facilitates is to be remitted (iii), and as such, the revenue is considered earned upon completion of the third parties’ sales of such products (iv). Like pharmacy services described above, revenue is recognized when the prescription is dispensed (picked up by the patient or shipped to the patient using common carrier or delivered by the pharmacies own personnel) (v).
Provisions for estimated sales returns and uncollectible accounts are recorded in the period in which the related sales are recognized based on historical and anticipated rates.

The Company determines whether it is the principal or agent for its retail pharmacy contract services on a contract by contract basis. In the majority of its contracts, the Company has determined it is the principal due to: (i) being the primary obligor in the arrangement, (ii) having latitude in changing the product or performing part of the service, (iii) having discretion in supplier selection, (iv) having involvement in the determination of product or service specifications, and (v) having credit risk. The Company’s obligations under its client contracts for which revenues are reported using the gross method are separate and distinct from its obligations to the third-party pharmacies included in its retail pharmacy network contracts. Pursuant to these contracts, the Company is contractually required to pay the third-party pharmacies in its retail pharmacy network for products sold, regardless of whether the Company is paid by its clients. The Company’s responsibilities under its client contracts typically include validating eligibility and coverage levels, communicating the prescription price and the co-payments due to the third-party retail pharmacy, identifying possible adverse drug interactions for the pharmacist to address with the prescriber prior to dispensing, suggesting generic alternatives where clinically appropriate, and approving the prescription for dispensing. Although the Company does not have credit risk with respect to Retail Co-Payments or inventory risk related to retail network claims, management believes that all of the other applicable indicators of gross revenue reporting are present. For contracts under which the Company acts as an agent, revenue is recognized using the net method.

Adoption of New Accounting Standards

We have reviewed the FASB issued Accounting Standards Update (“ASU”) accounting pronouncements and interpretations thereof that have effective dates during the periods reported and in future periods. The Company does not believe that any new or modified principles will have a material impact on the Company’s reported financial position or operations in the near term. The applicability of any standard is subject to the formal review of our financial management and certain standards are under consideration.

In February 2016, the FASB issued ASU No. 2016-02, Leases (“ASU 2016-02”). In January 2018, the FASB issued ASU 2018-01, which provides additional implementation guidance on the previously issued ASU 2016-02. Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and (2) a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. On August 1, 2019, we adopted ASU 2016-02 and its related amendments, which changed our accounting for leases. As a result of this change, we recognized right-of-use assets and lease liabilities on the consolidated balance sheet for all leases with a term longer than 12 months and classified them as operating leases. The right-of-use assets and lease liabilities have been measured by the present value of remaining lease payments over the lease term using our incremental borrowing rates or implicit rates, when readily determinable. See Note 5 of Notes to Unaudited Condensed Consolidated Financial Statements contained elsewhere in this report for additional details related to our adoption of the new lease accounting standard.

Recently Issued Accounting Standards

In January 2017, the FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment (Topic 350), which eliminates Step 2 from the goodwill impairment test. Instead, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The Company will adopt the standard effective August 1, 2020. The Company is evaluating the effect that ASU 2017-04 will have on its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception. Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, Distinguishing Liabilities from Equity, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable non-controlling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. The Company early adopted the ASU 2017-11 in the second quarter as of January 31, 2019.
In February 2018, the FASB issued ASU 2018-02, *Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which was issued to address the income tax accounting treatment of the stranded tax effects within other comprehensive income due to the prohibition of backward tracing to an income tax rate change that was initially recorded in other comprehensive income. This issue came about from the enactment of the TCJA on December 22, 2017 that changed the Company’s federal income tax rate from 35% to 21% effective January 1, 2018 and the establishment of a territorial-style system for taxing foreign-source income of domestic multinational corporations. In December 2017, the SEC issued Staff Accounting Bulletin No. 118, *Income Tax Accounting Implications of the Act* (“SAB118”), which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment. The Company remeasured its deferred tax assets and liabilities as of July 31, 2018, applying the reduced corporate income tax rate and recorded a provisional decrease to the deferred tax assets of $31,876,520, with a corresponding adjustment to the valuation allowance. In the fourth quarter of fiscal year ended July 31, 2019, we completed our analysis to determine the effect of the Tax Act and there were no material adjustments as of July 31, 2019.

In August 2018, the FASB issued ASU 2018-13, “*Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement*”, which adds disclosure requirements to Topic 820 for the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. This ASU is effective for interim and annual reporting periods beginning after December 15, 2019. The Company is evaluating the effect that ASU 2018-13 will have on consolidated financial statements.

**Note 3 - Loans from Related Parties**

Pursuant to the acquisitions of Regentys, the Company assumed $19,700 of loans payable to Regentys shareholders. As part of the assets purchase agreement for Pantheon, the Company acquired 50% of the open accounts receivable. The amount collected on accounts receivable excluded from the acquisition, that is due to the prior owner of Pantheon, was $52,912. The balance of loans from related parties was $72,612 as of October 31, 2019.

**Note 4 - Commitments and Contingencies:**

**Pending Litigation**

The Company is a defendant in one legal proceeding relating to alleged breach of contract and claims against certain of the Company’s original buccal delivery patents. The Company is also a defendant in two legal proceedings brought by a former executive officer and her affiliate. These legal proceedings have been reported in the Company’s prior periodic reports. No activity has occurred in these cases in several years, and the Company now considers them dormant.

In December 2011, a vendor of the Company commenced an action against the Company and its subsidiary, Generex Pharmaceuticals, Inc., in the Ontario Superior Court of Justice claiming damages for unpaid invoices including interest in the amount of $429,000, in addition to costs and further interest. The Company responded to this statement of claim and also asserted a counterclaim in the proceeding for $200,000 arising from the vendor’s breach of contract and detinue, together with interest and costs. On November 16, 2012, the parties agreed to settle this action and the Company has agreed to pay the plaintiff $125,000, following the spinout of its subsidiary Antigen, from the proceeds of any public or private financing related to Antigen subsequent to such spinout. The Company fails to make the payment following completion of any post-spinout financing related to Antigen or any other subsidiaries, the Plaintiffs may take out a judgment in the amount of the claim plus interest of 3% per annum and costs fixed at $25,000. This has been accrued in the unaudited condensed interim consolidated financial statements.
On August 22, 2017, Generex received a letter from counsel for Three Brothers Trading LLC, d/b/a Alternative Execution Group (“AEXG”), claiming breach of a Memorandum of Understanding (“MOU”) between Generex and AEXG. The MOU related to AEXG referring potential financing candidate to Generex. The letter from AEXG counsel claimed that Generex’s acceptance of $3,000,000 in financing from Pharma Trials, LLC, in March 2017, violated the provisions of the MOU prohibiting Generex from seeking other financing, with certain exceptions, for a period of 60 days after execution of the MOU. AEXG has demanded at least $210,000 in cash and 84,000 warrants for Generex stock convertible at $2.50 per share, for attorney’s fees and costs. On December 2, 2018, an arbitrator awarded Three Brothers Trading LLC, d/b/a Alternative Execution Group (“AEXG”) an aggregate of $315,695 in damages, costs and fees as well as warrants exercisable for 84,000 shares of Generex Common Stock at an exercise price of $2.50 per share. The awards were made pursuant to claims under a Memorandum of Understanding (“MOU”) between Generex and AEXG related to AEXG referring potential financing candidate to Generex. AEXG filed a petition to confirm the arbitrator’s award in the United States District Court for the Southern District of New York. The petition includes a demand of $3,300,360 as the value of the Warrants. The arbitrator did not award the specific amount of $3.3 million, but only liquidated damages in the amount of $220,000 and the value of 84,000 warrants “as of today” (the date of the award) plus attorney’s fees, certain costs, prejudgment and post-judgment interest (which continues to run on a daily basis) and arbitration fees. The petition to confirm the arbitrator’s award and Generex’s opposition were remanded by the Court to the arbitrator and returned for clarification. The arbitrator stated that he was unable to add any clarification, as he did not take evidence on the issue of warrant valuation. The parties are awaiting the court’s response to the Arbitrator’s statement. As of October 31, 2019, the value of the warrants have a market value of $65,613. Between the warrants and the $220,000 of liquidated damages, the Company has accrued $285,613 related to this matter.

On June 28, 2018, the Company was named in respect of a claim by Burrard Pharmaceutical Enterprises Ltd. and Moa’yeri Kayhan for unspecified damages and other remedies issued by the Supreme Court of British Columbia. The claim is made in connection with one advanced against Burrard and Kayhan by Middle East Pharmaceutical Factory L.L.C., a foreign corporation, for fraudulent or negligent misrepresentation. Middle East alleges that it was misled by Burrard and Kayhan into believing that Burrard had rights to distribute Generex product in the Middle East. Burrard and Kayhan allege that they did have rights in that regard, which the Company denies. The matter remains at the pleadings stage and the Company is investigating the facts.

On October 26, 2018, Generex entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold its Note Due October 26, 2019 (“Note”) in the principal amount of $682,000. On January 25, 2019, Generex received a letter from the purchaser’s counsel stating that the Note was in default because Generex’s common stock was not listed on NASDAQ within 90 days after the issuance of the Note. The letter demanded repayment in full. On February 12, 2019, the Purchaser filed a Motion for Summary Judgment in lieu of complaint in the Supreme Court of New York, demanding the aggregate principal amount, default interest and costs. Counsel for Generex and Alpha have engaged in settlement discussions.

On March 21, 2019 Compass Bank filed suit against NuGenerex Distributions Solutions 2, L.L.C. in the District Court of Dallas County, Texas requesting damages of $3,413,000. In connection with the closing of the Veneto acquisition, Compass Bank had a lien on certain assets that were supposed to be transferred into the ownership of NuGenerex, a subsidiary of Generex. Those assets were never transferred due to regulatory impositions. Generex had listed Compass Bank as an intended third party beneficiary to the transaction in relation to the assets liened and Veneto ceased payments upon the loan which the lien generated from. Compass Bank filed suit against 6 parties involved in the transaction to collect on the loan, including NuGenerex. NuGenerex’s position is the contract was frustrated by the assets that were liened were never transferred, NuGenerex did not receive any benefit from the agreement, and thus NuGenerex is not responsible to Compass Bank for repayment of a loan on assets not transferred. Generex intends to implead Brooks Houghton for indemnification who was retained to perform due diligence on the transaction.

F-10
In May 2019 Brooks Houghton threatened litigation by way of a FINRA Dispute Resolution. Brooks Houghton, who is the managing representative is Mr. Centonfanti a prior board member, was under contract to perform due diligence on the Veneto transaction, as well as other unrelated items. The Veneto transaction closed three times, each time with a reduction in price due to material negative circumstances. Brook Houghton, who was under contract to perform due diligence, claims their fee should be paid on the initial closing price not the ultimate resolution of the matter. The company offered to compensate Brooks Houghton pursuant to agreement, 3% on the most recent closing price for Veneto for which Brooks Houghton may have performed some level of work on, payable in kind, and Brooks Houghton declined the offer. Brooks Houghton is claiming $450,000 for the first closing of Veneto, $714,000 for the second closing of Veneto, $882,353 for the Regentys acquisition, and $705,882 for Olaregen. The company is awaiting service. As of October 31, 2019, the Company has accrued for the full $2,752,235 balance.

With respect to all litigation, as additional information concerning the estimates used by the Company becomes known, the Company reassesses its position both with respect to accrued liabilities and other potential exposures.

**Commitments**

**Intellectual Property**

In connection with the Company’s acquisition of Olaregen, intellectual property was acquired that had a valuation of $650,000 prior to being acquired and revalued. This initial $650,000 valuation represented the initial payment remitted by Olaregen in accordance with the $4 million signed commitment agreement entered into with Activation Therapeutics, Inc. The remaining $3.35 million balance is to be paid in quarterly installments equal to 10% of quarterly net sales generated by Activation Therapeutics assuming the Exellagen average selling price per unit exceeds $800. In the event that the average selling price per unit is less than $800 per unit, cost of goods sold shall be excluded from the computation of net sales.

**Note 5 – Leases**

The Company has various operating lease agreements with terms up to 2 years, including leases of office space. Some leases include purchase, termination or extension options for one or more years. These options are included in the lease term when it is reasonably certain that the option will be exercised.

The Company adopted ASC 842 effective August 1, 2019 using the cumulative-effect adjustment transition method, which applies the provisions of the standard at the effective date without adjusting the comparative periods presented. The Company adopted the following practical expedients and elected the following accounting policies related to this standard update:

- The option to not reassess prior conclusions related to the identification, classification and accounting for initial direct costs for leases that commenced prior to January 1, 2019.
- Short-term lease accounting policy election allowing lessees to not recognize right-of-use assets and liabilities for leases with a term of 12 months or less; and
- The option to not separate lease and non-lease components for certain equipment lease asset categories such as freight car, vehicles and work equipment.
- The package of practical expedients applied to all of its leases, including (i) not reassessing whether any expired or existing contracts are or contain leases, (ii) not reassessing the lease classification for any expired or existing leases, and (iii) not reassessing initial direct costs for any existing leases.

The assets and liabilities from operating and finance leases are recognized at the commencement date based on the present value of remaining lease payments over the lease term using the Company’s incremental borrowing rates or implicit rates, when readily determinable. Short-term leases, which have an initial term of 12 months or less, are not recorded on the balance sheet.

The Company’s operating leases do not provide an implicit rate that can readily be determined. Therefore, the Company uses a discount rate based on its incremental borrowing rate, which is determined using the average of borrowing rates explicitly stated in the Company’s convertible debt.

The Company’s weighted-average remaining lease term relating to its operating leases is 1.3 years, with a weighted-average discount rate of 9.5%.

The Company incurred lease expense for its operating leases of $21,508 for three months ended October 31, 2019.

The following table presents information about the amount and timing of liabilities arising from the Company’s operating leases as of October 31, 2019:

<table>
<thead>
<tr>
<th>Maturity of Operating Lease Liabilities</th>
<th>$</th>
<th>64,801</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td>39,879</td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thereafter</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Total undiscounted operating lease payments</td>
<td></td>
<td>104,680</td>
</tr>
<tr>
<td>Less: Imputed interest</td>
<td></td>
<td>6,740</td>
</tr>
<tr>
<td>Present value of operating lease liabilities</td>
<td>$</td>
<td>97,940</td>
</tr>
</tbody>
</table>
Note 6 – Inventory

Inventory consists of the following components:

<table>
<thead>
<tr>
<th></th>
<th>October 31, 2019</th>
<th>July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>$74,444</td>
<td>$77,782</td>
</tr>
<tr>
<td>Finished goods</td>
<td>$652,819</td>
<td>$285,226</td>
</tr>
<tr>
<td>Total Inventory</td>
<td>$727,263</td>
<td>$363,008</td>
</tr>
</tbody>
</table>

Note 7 – Property and Equipment

Property and equipment, net consisted of the following:

<table>
<thead>
<tr>
<th></th>
<th>October 31, 2019</th>
<th>July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and technological assets</td>
<td>$163,168</td>
<td>$163,168</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>$500,576</td>
<td>$386,929</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>$89,123</td>
<td>$73,227</td>
</tr>
<tr>
<td>Leasehold Improvements</td>
<td>$16,596</td>
<td>$16,596</td>
</tr>
<tr>
<td></td>
<td>$769,463</td>
<td>$639,920</td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>(237,575)</td>
<td>(139,927)</td>
</tr>
<tr>
<td></td>
<td>$531,888</td>
<td>$499,993</td>
</tr>
</tbody>
</table>

Depreciation expense related to property and equipment for the three months ended October 31, 2019 and October 31, 2018 was $48,847 and $25,664, respectively.

Note 8 – Goodwill and Intangible Assets

Intangible assets consist of the following at:

<table>
<thead>
<tr>
<th></th>
<th>October 31, 2019</th>
<th>July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Process Research &amp; Development</td>
<td>$8,761,427</td>
<td>$8,761,427</td>
</tr>
<tr>
<td>Non-compete agreements</td>
<td>$1,566,700</td>
<td>$1,210,000</td>
</tr>
<tr>
<td>Developed software/technology</td>
<td>$172,500</td>
<td>$131,000</td>
</tr>
<tr>
<td>Vendor agreements and other intangibles</td>
<td>$775,674</td>
<td>$512,74</td>
</tr>
<tr>
<td></td>
<td>$11,276,301</td>
<td>$10,153,701</td>
</tr>
<tr>
<td>Less accumulated amortization</td>
<td>(473,859)</td>
<td>(319,432)</td>
</tr>
<tr>
<td></td>
<td>$10,802,442</td>
<td>$9,834,269</td>
</tr>
</tbody>
</table>

Intangible assets are generally amortized on a straight-line basis over the useful lives of the assets. The Company is currently not amortizing the in-process research and development until it becomes commercially viable and placed in service. At the time when the intangible assets are placed in service the Company will determine a useful life.

Amortization expense amounted to $154,426 and $646 for the three months ended October 31, 2019 and October 31, 2018, respectively.
The remaining estimated amortization expense for the next five years and thereafter is as follows:

<table>
<thead>
<tr>
<th>Year Ending July 31,</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$570,708</td>
</tr>
<tr>
<td>2021</td>
<td>616,744</td>
</tr>
<tr>
<td>2022</td>
<td>246,324</td>
</tr>
<tr>
<td>2023</td>
<td>94,511</td>
</tr>
<tr>
<td>2024</td>
<td>68,491</td>
</tr>
<tr>
<td>Thereafter</td>
<td>444,658</td>
</tr>
<tr>
<td></td>
<td>$2,041,435</td>
</tr>
</tbody>
</table>

Changes in the value of goodwill:

<table>
<thead>
<tr>
<th>Balance as of July 31, 2019</th>
<th>$38,297,573</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition of MediSource and Pantheon</td>
<td>603,553</td>
</tr>
<tr>
<td>Balance as of October 31, 2019</td>
<td>$38,901,126</td>
</tr>
</tbody>
</table>

**Note 9 – Notes Payable**

On October 26, 2018, Generex entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold its Note Due October 26, 2019 (“Note”) in the principal amount of $682,000. The purchase price of the Note was $550,000 from which Generex was required to pay the $15,000 fee of the investor’s counsel. The remaining $147,000 of principal amount represents original issue discount. The Note does not bear any stated interest in addition to the original issue discount. The effective interest is 27.5%.

On January 24, 2019, Generex entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold its convertible note bearing interest at 10% per annum (the “Notes”) in the principal amount of $530,000. The purchase price of the Notes was $505,000 and the remaining $25,000 of principal amount represents original issue discount. Pursuant to the Securities Purchase Agreement, Generex also sold warrants to the investors to purchase 30,285 shares of common stock with the fair value of the warrants as of the date of issuance in excess of the Notes resulting in full discount of the Notes.

In February 2019, Generex entered into Securities Purchase Agreements with two investors pursuant to which the Company agreed to sell and sold each investor a $750,000 convertible note bearing interest at 10% per annum (the “Notes”). The total purchase price of the Notes was $1,425,000 and the remaining $75,000 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 70% of the lowest trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. Pursuant to the Securities Purchase Agreements, Generex also sold warrants to the investors to purchase up to an aggregate 102,143 shares of common stock. The fair value of the derivative liability and warrants as of the date of issuance was in excess of the Notes resulting in full discount of the Notes. One of the notes went into default during the quarter. Pursuant to a settlement agreement, the Company agreed to settle the debt by making a $900,000 payment and converting $350,000 of the remaining principal into common stock of the Company. The Company recognized a loss on settlement of debt of $403,214.

In April 2019, Generex entered into Securities Purchase Agreements with two investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest at 10% per annum (the “Notes”) in the aggregate principal amount of $1,060,000. The purchase price of the Notes was $1,010,000 and the remaining $50,000 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 70% of the lowest trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. Pursuant to the Securities Purchase Agreements, Generex also sold warrants to the investors to purchase up to an aggregate 176,968 shares of common stock. The fair value of the derivative liability and warrants as of the date of issuance was in excess of the Notes resulting in full discount of the Notes. During the quarter, $110,000 of principal was converted into common stock of the Company, leaving a remaining principal balance of $950,000 at October 31, 2019.
In May 2019, the Company consummated a Stock Purchase Agreement entered into January 14, 2019 to which the Company agreed to sell and sold $2,000,000 Promissory Note bearing interest at 7% per annum (the “Notes”) originally due and payable on August 1, 2019. The note remains active and interest has continued to accrue while new terms of the note are in process of being negotiated.

In July 2019, Generex entered into Securities Purchase Agreements with two investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest at 9% per annum (the “Notes”) in the aggregate principal amount of $446,600. The purchase price of the Notes was $400,000 and the remaining $46,600 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 80% of the lowest volume weighted average trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. The fair value of the derivative liability as of the date of issuance was $206,548 and was recorded as a discount of the Notes.

In August 2019, the Company borrowed $1,000,000 from an investor, bearing 10% interest per annum, with an original issue discount of $150,000. $1,150,000 is due in one year from the date of issuance.

In August and September 2019, the Company entered into Securities Purchase Agreements with three investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest between 9% and 10% per annum (the “Notes”) in the aggregate principal amount of $2,222,500. The purchase price of the Notes was $1,976,745 and the remaining $245,755 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: 80% of the lowest trading price of the common stock on the ten or twenty days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. The fair value of the derivative liability as of the date of issuance was $1,052,349 and was recorded as a discount of the Notes.

For the quarter ending October 31, 2019, amortization of debt discount was $2,065,835 leaving a remaining debt discount balance as of October 31, 2019 of $1,473,842.

On December 28, 2017, the Company through its wholly owned subsidiary NuGenerex, completed the acquisition of the assets and 100% of the membership interests of two pre-operational pharmacies, Empire State Pharmacy Holdings, LLC and Grainland Pharmacy Holdings, LLC, pursuant to the bills of sale for a consideration of $320,000 Promissory Note due and payable in full on June 28, 2018 bearing an annual interest rate of 3%. The note was extended by six months and set to mature with the same terms on December 28, 2018. The note remains active and interest has continued to accrue while new terms of the note are in process of being negotiated.

Pursuant to the second closing of the acquisition of certain operating assets of Veneto Holdings, L.L.C. and its affiliates, Generex’s wholly owned subsidiary agreed to assume outstanding debt of Veneto subsidiaries to Compass Bank, including obligations under a term loan and a revolving line of credit. Claiming three separate types of default, Compass Bank has demanded payment in full of amounts due under the term loan and revolving line of credit, in an aggregate amount of approximately $3,413,000. Generex believes it has defenses to such demand, including that the bank was not an intended beneficiary of the subsidiary’s agreement to assume the debt.

Pursuant to its acquisition of Regentys, the Company inherited convertible notes with several investors which collectively held a principal plus of $615,000 as of the date of acquisition. As of October 31, 2019, the remaining principal balance was $349,656 with an unamortized debt discount balance of $3,719. These notes have an accrued interest balance of $39,191 as of October 31, 2019.
Note 10 – Derivative Liability

The Company issued debts that consist of the issuance of convertible notes with variable conversion provisions. The conversion terms of the convertible notes are variable based on certain factors, such as the future price of the Company’s common stock. The number of shares of common stock to be issued is based on the future price of the Company’s common stock. The number of shares of common stock issuable upon conversion of the promissory note is indeterminate. Due to the fact that the number of shares of common stock issuable could exceed the Company’s authorized share limit, the equity environment is tainted, and all additional convertible debentures and warrants are included in the value of the derivative. Pursuant to ASC 815-15 Embedded Derivatives, the fair values of the variable conversion option and warrants and shares to be issued were recorded as derivative liabilities on the issuance date.

Based on the various convertible notes described in Note 13, the fair value of applicable derivative liabilities on notes, warrants and change in fair value of derivative liability are as follows as of October 31, 2019:

The following table presents the activity for derivative liabilities measured at estimated fair value:

<table>
<thead>
<tr>
<th></th>
<th>Derivative Liability - Convertible Notes</th>
<th>Derivative Liability - Warrants</th>
<th>Derivative Liability - Downside Protection</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as of July 31, 2019</td>
<td>4,156,196</td>
<td>325,250</td>
<td>3,338,836</td>
<td>7,820,282</td>
</tr>
<tr>
<td>Additions during the period</td>
<td>1,021,996</td>
<td>30,353</td>
<td>—</td>
<td>1,052,349</td>
</tr>
<tr>
<td>Change in fair value</td>
<td>(1,131,157)</td>
<td>(66,456)</td>
<td>3,033,820</td>
<td>1,836,207</td>
</tr>
<tr>
<td>Change due to exercise / redemptions</td>
<td>(1,875,052)</td>
<td>(36,432)</td>
<td>—</td>
<td>(1,911,484)</td>
</tr>
<tr>
<td>Balance as of October 31, 2019</td>
<td>$2,171,983</td>
<td>$252,715</td>
<td>$6,372,656</td>
<td>$8,797,354</td>
</tr>
</tbody>
</table>

Note 11 - Stockholders' Equity:

Common Stock

On November 13, 2018, the Company declared a stock dividend on its outstanding Common Stock for stockholders of record date to be determined (the “Record Date”). As a result, all stockholders on the Record Date received twenty new shares of Common Stock for each share of Common Stock owned by them as of that date. Proportional adjustments for the reverse stock split were made to the Company’s outstanding stock options, and warrants including all share and per-share data, for all amounts and periods presented in the condensed interim consolidated financial statements.

During the three months ended October 31, 2019, 296,793 shares of common stock payable were issued. As of October 31, 2019, 286,377 shares remain to be issued resulting in common stock payable $215,793.

During the first quarter of 2020, the Company issued 1,164,190 shares of common stock for the conversion of approximately $1,736,900 of debt.

In August 2019, the Company issued 400,000 and 560,000 shares of common stock valued at $2.50 per share for the acquisition of MediSource and Pantheon, respectively.

On September 12, 2019, 20,375,900 outstanding shares of common stock were cancelled by the Company held by Joe Moscato TTEE Friends of Generex Biotechnology Investment Trust U/A/D 4/2/2019, a trust formed for the benefit the Company and any 80% controlled subsidiary of the Company by several shareholders contributing in the aggregate 33,175,900 shares of the Company’s Common Stock and 8,293,975 shares of Antigen Express, Inc, d/b/a NuGenerex Immuno-Oncology commons shares (the “Friends of Generex Trust”), similar to the Stock Control Agreement previously entered into by the same shareholders on December 1, 2018 filed in an 8-K filed on December 3, 2019, incorporated herein by reference.
Non-controlling Interest

Pursuant to the Company’s acquisition of Regentys on January 7, 2019 to acquire a 51% interest, the Company was issued 12,048,161 shares of Regentys common stock. As of October 31, 2019, Regentys had a total of 18,623,278 shares of common stock and 2,793,192 Series A voting preferred stock for a total of 21,416,470 total voting shares outstanding. As such, there are 9,368,309 of shares that belong to non-controlling interest shareholders which represents a 43.74% non-controlling interest.

Pursuant to the Company’s acquisition of Olaregen on January 7, 2019 to acquire a 51% interest, the Company was issued 3,282,632 shares of Olaregen common stock. In May 2019, the Company issued 4,000,000 shares of common stock contributed and provided by the Friends of Generex Trust and a $2 million note payable for the acquisition of 592,683 shares of Series A Preferred Stock of Olaregen pursuant to a Stock Purchase Agreement entered into January 14, 2019 subject to the approval of the Board of Directors of Olaregen and consummated on May 10, 2019. On August 16, 2019, the Company entered into a Share Exchange Agreement to purchase an additional 900,000 shares of common stock in Olaregen from other shareholders of Olaregen in exchange for 1,905,912 shares of Generex common stock contributed and provided by the Friends of Generex Trust and 476,478 shares of Antigen common stock contributed and provided by the Friends of Generex Trust. In September 2019, the Company converted all of the Series A Preferred Stock of Olaregen into common stock of Olaregen.

On February 25, 2019, we issued a stock dividend to our shareholders, whereby our shareholders received one (1) share of NGIO for every four (4) shares of our stock held on the dividend date.

As of October 31, 2019, Olaregen had a total of 6,236,390 shares of common stock and zero Series A voting preferred stock outstanding. As such, there are 1,461,075 of shares that belong to non-controlling interest shareholders which represents a 23.43% non-controlling interest.

On November 1, 2018, the Company completed its second closing of Veneto Holdings, L.L.C. (“Veneto”) which granted the Company Rapport Services, LLC (“Rapport”) through the ownership of the units of Class B membership interests providing control of Rapport as only the Class B Member is entitled to elect the nominees to the Board of Managers, which constitute a one percent (1%) ownership in Rapport. The remaining interests represent a 99% non-controlling interest.

Note 12 – Redeemable Non-Controlling Interest:

Pursuant to the Company’s acquisition of 51% of the outstanding capital stock of Regentys, Regentys had authorized 7,500,000 shares of redeemable Series A Convertible Preferred Stock (“Preferred Stock A”), with a par value of $0.0001 and redemption value of $0.65 per share of which 2,793,192 Preferred Stock A was outstanding as of the date of acquisition and as of October 31, 2019. Preferred Stock may be converted into common stock at the initial conversion ratio of 1:1 which ratio shall be adjusted in accordance with stock dividends, splits, combinations and other similar events, including the sale of additional shares of common or preferred stock and the holders of Preferred Stock A are entitled to vote, together with the holders of Regentys common stock, on all matters submitted to stockholders of Regentys for a vote. At any time after November 1, 2026, the holders of the Company’s Series A Preferred Stock will have the right to require the Company to redeem all or a portion of their shares for cash at a redemption price equal to its liquidation value. Accordingly, this Preferred Stock A was valued to be $4,073,898 at the time of acquisition of Regentys and reclassified as Redeemable Non-Controlling Interest outside of stockholders’ deficit on the consolidated balance sheets.

Note 13 - Stock-Based Compensation:

Stock Option Plans

As of October 31, 2019, the Company had two stockholder-approved stock incentive plans under which shares and options exercisable for shares of common stock have been or may be granted to employees, directors, consultants and advisors. A total of 2,835,000 shares of common stock are reserved for issuance under the 2006 Stock Plan as amended (the 2006 Plan) and 240,000,000 shares of common stock reserved for issuance under the 2017 Stock Option Plan (the 2017 Plan). At October 31, 2019, there were 2,823,450 and 231,149,875 the 2006 Plan and 2017 Plan, respectively. The Company issues new shares of common stock from the shares reserved under the respective Plans upon conversion or exercise of options and issuance of restricted shares.

The 2006 and 2017 Plans (the Plans) are administered by the Board of Directors (the Board). The Board is authorized to select from among eligible employees, directors, advisors and consultants those individuals to whom options are to be granted and to determine the number of shares to be subject to, and the terms and conditions of the options. The Board is also authorized to prescribe, amend and rescind terms relating to options granted under the Plans. Generally, the interpretation and construction of any provision of the Plans or any options granted hereunder is within the discretion of the Board.
The Plans provide that options may or may not be Incentive Stock Options (ISOs) within the meaning of Section 422 of the Internal Revenue Code. Only employees of the Company are eligible to receive ISOs, while employees and non-employee directors, advisors and consultants are eligible to receive options which are not ISOs, i.e. “Non-Qualified Options.” The options granted by the Board in connection with its adoption of the Plans were Non-Qualified Options. In addition, the 2006 Plan also provides for restricted stock grants.

The fair value of each option granted is estimated on the grant date using the Black-Scholes option pricing model or the value of the services provided, whichever is more readily determinable. The Black-Scholes option pricing model takes into account, as of the grant date, the exercise price and expected life of the option, the current price of the underlying stock and its expected volatility, expected dividends on the stock and the risk-free interest rate for the term of the option.

The following is a summary of the common stock options granted, forfeited or expired and exercised under the Plan:

<table>
<thead>
<tr>
<th>Options</th>
<th>Weighted Average Exercise Price per Share</th>
<th>Weighted Average Remaining Life (Years)</th>
<th>Aggregate Intrinsic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding - July 31, 2019</td>
<td>7,988,675</td>
<td>$0.84</td>
<td>7.21</td>
</tr>
<tr>
<td>Granted</td>
<td>1,003,000</td>
<td>$2.09</td>
<td>4.92</td>
</tr>
<tr>
<td>Forfeited or expired</td>
<td>(130,000)</td>
<td>$1.11</td>
<td>7.65</td>
</tr>
<tr>
<td>Exercised</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Outstanding - October 31, 2019</td>
<td>8,861,675</td>
<td>$0.98</td>
<td>6.71</td>
</tr>
</tbody>
</table>

The intrinsic value is calculated as the difference between the market value and the exercise price of the shares on October 31, 2019. The market values as of October 31, 2019 was $1.53 based on the closing bid price for October 31, 2019.

There were 3,540,675 vested common stock options under the Plan as of October 31, 2019. The compensation expense was $787,458 for the three months ended October 31, 2019. The Company had $4,256,191 of unrecognized compensation costs related to non-vested share-based compensation arrangements granted under the Plan at October 31, 2019 to be recognized over an average of 2.67 years.

The Company estimated the fair value of each stock option on the grant date using a Black-Scholes option-pricing model. Black-Scholes option-pricing models requires the Company to make predictive assumptions regarding future stock price volatility, recipient exercise behavior, and dividend yield. The Company estimated the future stock price volatility using the historical volatility over the expected term of the option. The following assumptions were used in the Black-Scholes option-pricing model:

<table>
<thead>
<tr>
<th>October 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise price</td>
</tr>
<tr>
<td>Time to expiration</td>
</tr>
<tr>
<td>Risk-free interest rate</td>
</tr>
<tr>
<td>Estimated volatility</td>
</tr>
<tr>
<td>Expected dividend</td>
</tr>
<tr>
<td>Stock price at valuation date</td>
</tr>
</tbody>
</table>
During 2019, the Company established a Direct Stock Purchase Plan ("2019 Plan") pursuant to which eligible participants may acquire shares of common stock in lieu of certain cash obligations otherwise owed to participants during the 2019 calendar year. The 2019 Plan will automatically terminate on December 31, 2019. There was a total of 1,200,000 shares of common stock reserved under the plan of which no shares have been issues.

**Note 14 - Warrants:**

A summary of the Company’s warrant activities is as follows:

<table>
<thead>
<tr>
<th>Outstanding - July 31, 2019</th>
<th>Weighted Average Exercise Price per Share</th>
<th>Weighted Average Remaining Life (Years)</th>
<th>Aggregate Intrinsic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Warrants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issued</td>
<td>62,857</td>
<td>3.50</td>
<td>5.01</td>
</tr>
<tr>
<td>Forfeited</td>
<td>(57,143)</td>
<td>3.50</td>
<td>—</td>
</tr>
<tr>
<td>Outstanding - October 31, 2019</td>
<td>$</td>
<td>2.52</td>
<td>0.18</td>
</tr>
</tbody>
</table>

During the three months ended October 31, 2019, the Company issued 62,857 to investors of convertible notes and 57,143 warrants were forfeited upon settlement of a note. All the warrants issued vested immediately upon issuance. Additionally, 84,000 warrants are to be issued to AEXG in connection with an arbitrator’s award (Note 4).

**Note 15 - Net Income Per Share (“EPS”):**

Basic net income or loss per share is calculated using the weighted average number of common shares outstanding during the period. Diluted net income per share is calculated by dividing income available to common shareholders by the weighted average number of common shares outstanding for the period and, when dilutive, potential shares from stock options and warrants to purchase common stock, using the treasury stock method. Common stock equivalents are included in the diluted income per share calculation only when option exercise prices are lower than the average market price of the common shares for the period presented.

During the three months ended October 31, 2019, the Company issued 62,857 to investors of convertible notes and 57,143 warrants were forfeited upon settlement of a note. All the warrants issued vested immediately upon issuance. Additionally, 84,000 warrants are to be issued to AEXG in connection with an arbitrator’s award (Note 4).

**Note 15 - Net Income Per Share (“EPS”):**

Basic net income or loss per share is calculated using the weighted average number of common shares outstanding during the period. Diluted net income per share is calculated by dividing income available to common shareholders by the weighted average number of common shares outstanding for the period and, when dilutive, potential shares from stock options and warrants to purchase common stock, using the treasury stock method. Common stock equivalents are included in the diluted income per share calculation only when option exercise prices are lower than the average market price of the common shares for the period presented.

| Weighted average number of common shares outstanding - Basic | 53,186,407 | 22,806,777 |
| Potentially dilutive common stock equivalents | 31,892,421 |
| Weighted average number of common and equivalent shares outstanding - Diluted | 53,186,407 | 54,699,198 |

The following table provides weighted average number of common stock equivalents not included in diluted income per share, because the effects are anti-dilutive, for the three months ended October 31, 2019 and 2018, respectively.

| Series H Convertible Preferred Stock | 3,744,548 | 25,200,000 |
| Series I Convertible Preferred Stock | — | 6,636,000 |
|Convertible debt | — | — |
|Stock options | 8,871,675 | 2,747,850 |
|Warrants | 15,405,395 | — |
|Total | 28,021,618 | 34,583,850 |
Note 16 – Acquisitions:

MediSource and Pantheon:

On August 1, 2019, the Company, through its wholly owned subsidiary NDS, closed on Asset Purchase Agreements (the “APAs”) for the purchase of substantially all the operating assets of MediSource Partners, LLC (“MediSource”) and Pantheon Medical - Foot & Ankle, LLC (“Pantheon”).

MediSource contracts with vendors (including Pantheon) for nationwide distribution of implants and devices for spine, hips, knees, foot, ankle, hand, and wrist surgeries. Additional product lines include biologics (blood, bone, tissue, and stem cells), durable medical equipment, and soft goods. MediSource also supplies kits to process bone marrow aspirates and platelet rich plasma biologics at the time of surgery.

Pantheon sells a physician friendly, “all-in-one,” integrated kit that includes plates, screws, and tools required for orthopedic surgeons and podiatrists conducting foot and ankle surgeries. Over the next three years, Pantheon expects to develop and submit several new product lines to the FDA, which will include cannulated surgical screws and surgical staples, as well as a proprietary Hammertoe System.

The goal in acquiring these operating companies is that they expect to provide multiple and significant revenue streams through delivery of patient-focused healthcare products and services, thus generating value and ultimately creating goodwill upon acquisition.

Travis H. Bird was the CEO and principal owner of both Pantheon and MediSource.

Under the APAs:

- Generex will issue 400,000 shares of common stock in exchange for the Pantheon assets, and 560,000 shares of common stock in exchange for the MediSource assets.
- Generex and NDS will pay up to $700,000 in cash to Pantheon as an earn out payment. No payment will be made unless the business conducted by NDS using the former Pantheon assets has EBITDA in the twelve months following closing in excess of $500,000. If the Pantheon business’s EBITDA meets or exceeds $1,000,000, the entire $700,000 will be paid. If the Pantheon business’s EBITDA exceeds $500,000 but is less than $1,000,000, a pro rata portion of the $700,000 earn-out will be paid.
- Generex and NDS will pay up to $500,000 in cash to MediSource as an earn out payment. No payment will be made unless the business conducted by NDS using the former MediSource assets has EBITDA in the twelve months following closing in excess of $130,000. If the MediSource business’s EBITDA meets or exceeds $500,000, the entire $500,000 will be paid. If the MediSource business’s EBITDA exceeds $130,000 but is less than $500,000, a pro rata portion of the $500,000 earn-out will be paid.
- In the event the EBITDA targets are met for one or both MediSource and Pantheon, Travis Bird will receive sales commissions equal to 15% of net sales during the first year following closing, and 10% of net sales during the second year.
- Both MediSource and Pantheon agreed to waive the 1:1 stock dividend Generex announced it will issue if Generex is listed on NASDAQ.
- Each of Pantheon and MediSource will retain 50% of its cash on hand and 50% of its accounts receivable, with the remainder transferred to NDS at closing.
- Generex and NDS will not assume any Pantheon or MediSource liabilities except for post-closing obligations under assumed contracts.
- Pantheon and MediSource will not transfer their Medicare and Medicaid numbers.

At closing, Mr. Bird will enter into an 18-month consulting agreement with NDS. As compensation, Mr. Bird will receive Generex common stock with a value of $250,000, as well as monthly payments equaling $97,222. The monthly payments shall be paid from any available cash from the operations of Pantheon and MediSource. Any remaining balance of such monthly payments will consist of common stock. The agreement specifies the shares are to be freely tradeable. In addition, Mr. Travis will agree to fully assign and exchange any ownership rights in any new technology he develops with the Company, in exchange for a payment of $500,000 in value of common stock for each completed item submitted to the FDA.

The Company accounted for the Acquisition of MediSource and Pantheon as a business combination using the purchase method of accounting as prescribed in Accounting Standards Codification 805, Business Combinations (“ASC 805”) and ASC 820 – Fair Value Measurements and Disclosures (“ASC 820”). In accordance with ASC 805 and ASC 820, we used our best estimates and assumptions to accurately assign fair value to the tangible assets acquired, identifiable intangible assets and liabilities assumed as of the acquisition dates. Goodwill as of the acquisition date is measured as the excess of purchase consideration over the fair value of tangible and identifiable intangible assets acquired and liabilities assumed.
## Fair Value of the MediSource Acquisition

The following table summarizes the allocation of the preliminary purchase price as of the MediSource acquisition:

<table>
<thead>
<tr>
<th>Preliminary Allocation as of August 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents $13,895</td>
</tr>
<tr>
<td>Other current assets 11,864</td>
</tr>
<tr>
<td>Property and equipment, net 8,992</td>
</tr>
<tr>
<td>Accounts payable and accrued liabilities (31,439)</td>
</tr>
<tr>
<td><strong>Net Tangible Assets</strong> 3,312</td>
</tr>
<tr>
<td>Tradename / Trademarks 47,600</td>
</tr>
<tr>
<td>Business Contracts 346,800</td>
</tr>
<tr>
<td>Non-Competes 124,600</td>
</tr>
<tr>
<td><strong>Total Fair Value of Assets Acquired</strong> 522,312</td>
</tr>
<tr>
<td><strong>Consideration:</strong></td>
</tr>
<tr>
<td>Fair value of common stock 479,980</td>
</tr>
<tr>
<td>Contingent consideration 409,790</td>
</tr>
<tr>
<td>Consideration included in consulting agreement 104,168</td>
</tr>
<tr>
<td><strong>Total Purchase Price</strong> 993,938</td>
</tr>
<tr>
<td><strong>Goodwill</strong> 471,626</td>
</tr>
</tbody>
</table>

## Fair Value of the Pantheon Acquisition

The following table summarizes the allocation of the preliminary purchase price as of the Pantheon acquisition:

<table>
<thead>
<tr>
<th>Preliminary Allocation as of August 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents $35,410</td>
</tr>
<tr>
<td>Accounts receivable 133,269</td>
</tr>
<tr>
<td>Prepaid expenses 3,336</td>
</tr>
<tr>
<td>Inventory 266,071</td>
</tr>
<tr>
<td>Medical Equipment, net 67,299</td>
</tr>
<tr>
<td>Accounts payable (53,242)</td>
</tr>
<tr>
<td>Accrued liabilities (15,573)</td>
</tr>
<tr>
<td><strong>Net Tangible Assets</strong> 436,570</td>
</tr>
<tr>
<td>Tradename / Trademarks 55,400</td>
</tr>
<tr>
<td>IP/Technology 41,500</td>
</tr>
<tr>
<td>Non-compete agreement 232,100</td>
</tr>
<tr>
<td>Customer Base 274,600</td>
</tr>
<tr>
<td><strong>Total assets acquired</strong> 1,040,170</td>
</tr>
<tr>
<td><strong>Consideration:</strong></td>
</tr>
<tr>
<td>Fair value of common stock 671,972</td>
</tr>
<tr>
<td>Contingent consideration 354,292</td>
</tr>
<tr>
<td>Consideration included in consulting agreement 145,833</td>
</tr>
<tr>
<td><strong>Goodwill</strong> 131,927</td>
</tr>
</tbody>
</table>

The components of the acquired intangible assets were as follows:

<table>
<thead>
<tr>
<th>Preliminary Fair Value</th>
<th>Average Estimated Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tradename / Trademarks $103,000</td>
<td>15</td>
</tr>
<tr>
<td>IP/Technology 41,500</td>
<td>5</td>
</tr>
<tr>
<td>Business Contracts 346,800</td>
<td>15</td>
</tr>
<tr>
<td>Customer Base 274,600</td>
<td>10</td>
</tr>
<tr>
<td>Non-compete agreement 356,700</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong> 1,112,600</td>
<td></td>
</tr>
</tbody>
</table>

## Unaudited Supplemental Pro Forma Data

Unaudited pro forma results of operations for the three months ended October 31, 2019 and 2018 as though the Company acquired MediSource and Pantheon on the first day of each fiscal year are set forth below.

<table>
<thead>
<tr>
<th>Three months Ended October 31,</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues $721,661</td>
<td>$2,141,000</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>2021</td>
<td>2020</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Cost of revenues</td>
<td>133,618</td>
<td>987,409</td>
</tr>
<tr>
<td>Gross profit</td>
<td>588,043</td>
<td>1,153,591</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>5,136,754</td>
<td>2,629,854</td>
</tr>
<tr>
<td>Operating loss</td>
<td>(4,548,711)</td>
<td>(1,476,262)</td>
</tr>
<tr>
<td>Other income (expense)</td>
<td>(4,763,836)</td>
<td>19,389,944</td>
</tr>
<tr>
<td>Net loss</td>
<td>$(9,312,547)</td>
<td>17,913,682</td>
</tr>
<tr>
<td>Comprehensive net loss</td>
<td>$(9,312,547)</td>
<td>$17,913,682</td>
</tr>
</tbody>
</table>
**Note 17 – Income Taxes:**

The Company has incurred losses since inception, which have generated net operating loss ("NOL") carryforwards. The NOL carryforwards arise from both United States and Canadian sources. Pre-tax gain or (loss) arising from domestic operations (United States) were $(9,179,902) and $(11,006,793) for the three months ended October 31, 2019 and the year ended July 31, 2019, respectively. Pre-tax (losses) arising from foreign operations (Canada) were $(10,963) and $(326,461) for the three months ended October 31, 2019 and the year ended July 31, 2019, respectively.

As of October 31, 2019, the Company has NOL carryforwards in Generex Biotechnology Corporation of approximately $214 million, of which $196 million will expire in 2020 through 2038, and $17.7 million will not expire. The non-expiring portion is limited to 80% of the current year taxable income of the respective entity. Generex Pharmaceuticals Inc. has NOL carryforwards of approximately $34.3 million, which expire in 2025 through 2040. Antigen Express, Inc. has NOL carryforwards of approximately $36.2 which will expire in 2020 through 2038. Regentys Corporation has NOL carryforwards of approximately $6.1 million, of which $4.9 million will expire in 2033 through 2038. Olaregen Therapeutics, Inc. has NOL carryforwards of $1.3 million which will not expire. Veneto has NOL carryforwards of $8.7 million which will not expire. Some of these loss carryforwards are subject to limitation due to the acquisition of Regentys, Olaregen and Antigen and may be limited in future years due to certain structural ownership changes which have occurred over the last several years related to the Company’s equity and convertible debenture financing transactions.

As of October 31, 2019, the Company had no tax benefits which have not been fully allowed for, and no adjustment to its financial position, results of operations or cash flows was required. The Company has deferred tax assets of over $70 million with a full allowance equally to the to the amount of the deferred tax asset. The Company does not expect that unrecognized tax benefits will increase within the next twelve months. During the period ended October 31, 2019, the Company acquired certain assets of MediSource Partners, LLC and Pantheon Medical. The assets are included within Generex Biotechnology Corporation.

The Company records interest and penalties related to tax matters within other expense on the accompanying consolidated statement of operations. These amounts are not material to the consolidated financial statements for the years presented. Generally, tax years 2016 to 2019 remain open to examination by the Internal Revenue Agency or other tax jurisdictions to which the Company is subject. The Company’s Canadian tax returns are subject to examination by federal and provincial taxing authorities in Canada. Generally, tax years 2011 to 2019 remain open to examination by the Canada Revenue Agency or other tax jurisdictions to which the Company is subject.

**Note 18 - Subsequent Events:**

The Company has evaluated subsequent events occurring after the balance sheet date through the date the unaudited condensed interim consolidated financial statements were issued.

On November 12, 2019, the Company’s note holder converted $80,000 of principal and $4,778 of interest into 115,344 shares of common stock.

On November 12, 2019, the Company’s note holder converted $50,000 of principal and $3,096 of interest into 128,561 shares of common stock.

On November 14, 2019, the Company’s note holder converted $50,000 of principal and $2,712 of interest into 80,110 shares of common stock.

On November 18, 2019, the Company entered into three Securities Purchase Agreements with investors pursuant to which the Company agreed to sell and sold three convertible notes bearing interest at 10% per annum in the aggregate principal amount of $275,000.

On November 21, 2019, the Company’s note holder converted $80,000 of principal and $4,493 of interest into 134,865 shares of common stock.
On November 21, 2019, the Company’s note holder converted $100,000 of principal and $6,219 of interest into 169,543 shares of common stock.

On November 22, 2019, effective as of November 15, 2019, the Company entered into a Stock Purchase Agreement for the purchase of 51% of the outstanding capital stock of GH Care, Inc. DBA ALTuCELL, Inc. (“ALTuCELL”).

Under the SPA, in exchange for the ALTuCELL Stock, Generex will issue to ALTuCELL 1,600,000 shares of Generex common stock with a down round provision and price floor of $1.25 per share. The Company will also pay $2.5 million in cash of which $112,000 has already been paid. In addition to stock and cash at closing, Generex has agreed to pay up to an aggregate of $3,500,000 to ALTuCell upon ALTuCell’s attainment of certain milestones.

On November 24, 2019, the Company amended the Stock Purchase Agreement with Olaregen. The Company was obligated to pay in full $11,600,000 to Olaregen by November 30, 2019, in connection with the purchase of Olaregen capital stock. Effective November 24, 2019, the deadline has been extended to January 31, 2020.

On November 25, 2019, the Company amended the Stock Purchase Agreement with Regentys originally on January 7, 2019. Effective November 25, 2019, the remaining three payments of $2,039,001, $2,000,000, and $3,000,000 are all payable on or before December 30, 2019.

On November 27, 2019, the Company’s note holder converted $100,000 of principal and $6,384 of interest into 202,635 shares of common stock.

On November 27, 2019, the Company’s note holder converted $125,000 of principal and $7,226 of interest into 251,859 shares of common stock.

On November 29, 2019, the Company’s note holder converted $50,000 of principal into 79,214 shares of common stock.

On December 5, 2019, the Company entered an Equity Purchase Agreement with an investor pursuant to which the Company will issue 100,000 shares of common stock to the investor as a commitment fee and a convertible note in the principal amount of $2,200,000.

On December 5, 2019, the Company’s note holder converted $70,000 of principal and $4,621 of interest into 180,682 shares of common stock.

On December 5, 2019, the Company’s note holder converted $75,000 of principal and $4,500 of interest into 192,494 shares of common stock.

On December 10, 2019, the Company announced revisions to previously announced stock dividends and approved by the Board of Directors on December 13, 2019 that the previously approved 1:1 common stock dividend shall be restructured to provide for a 2 to 5 stock dividend to shareholders of the Company and for shareholders to also receive an additional 2 to 5 stock dividend of Antigen Express, Inc, d/b/a NuGenerex Immuno-Oncology commons shares; that the record date for the stock dividend be August 30, 2019; and the new pay date for this 2.5 dividend will be January 3, 2020.

On December 12, 2019, the Company’s note holder converted $75,000 of principal and $4,756 of interest into 181,007 shares of common stock.

On December 12, 2019, the Company’s note holder converted $50,000 of principal and $3095.89 of interest into 128,561 shares of common stock.
To the Board of Directors and Stockholders of Generex Biotechnology Corporation and Subsidiaries.

Opinion on the Consolidated Financial Statements
We have audited the accompanying consolidated balance sheet of Generex Biotechnology Corporation and subsidiaries (the “Company”) as of July 31, 2019, and the related consolidated statements of operations and comprehensive loss, changes in stockholders’ deficit, and cash flows for the fiscal year then ended, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of July 31, 2019, and the consolidated results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph Regarding Going Concern
The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has incurred significant operating losses and negative cash flows from operations since inception. The Company also had an accumulated deficit of $418,727,875 at July 31, 2019. The Company is dependent on obtaining necessary funding from outside sources, including obtaining additional funding from the sale of securities in order to continue their operations. These conditions raise substantial doubt about its ability to continue as a going concern. Management’s plans regarding those matters also are described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion
These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Mazars USA LLP

We have served as the Company’s auditor since 2019.

Edison, New Jersey
November 12, 2019

F-23
REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of Generex Biotechnology Corporation

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Generex Biotechnology Corporation and its subsidiaries (the Company) as of July 31, 2018, and the related consolidated statements of operations and comprehensive income (loss), change in stockholders' deficiency, and cash flows for the year then ended, and the related notes, comprising a summary of significant accounting policies and other explanatory information (collectively referred to as the consolidated financial statements).

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of July 31, 2018, and its consolidated financial performance and its consolidated cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Material Uncertainty Related to Going Concern

The accompanying consolidated financial statements has been prepared assuming the Company will continue as a going concern. As discussed in Note 1, the Company’s experience of negative cashflow from operations since inception and its dependency upon future financing, which is uncertain due to the limitations imposed by previous financings on future financings, raise substantial doubt about its ability to continue as a going concern. Management’s plans regarding these matters are described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. We believe that our audit provide a reasonable basis for our opinion.

/s/ MNP LLP

We have served as the Company’s auditor since 2013.

Mississauga, Canada

October 26, 2018
## GENEREX BIOTECHNOLOGY CORPORATION AND SUBSIDIARIES
## CONSOLIDATED BALANCE SHEETS

### ASSETS

<table>
<thead>
<tr>
<th>Category</th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$298,485</td>
<td>$1,046,365</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>36,311</td>
<td>33,555</td>
</tr>
<tr>
<td>Inventory, net</td>
<td>363,008</td>
<td>12,075</td>
</tr>
<tr>
<td>Other current assets</td>
<td>275,731</td>
<td>96,251</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>$973,535</td>
<td>1,188,246</td>
</tr>
<tr>
<td><strong>Property and equipment</strong></td>
<td>$499,993</td>
<td>31,536</td>
</tr>
<tr>
<td>Call option (Note 9)</td>
<td>—</td>
<td>2,168,211</td>
</tr>
<tr>
<td>Goodwill (Note 12)</td>
<td>38,297,573</td>
<td>—</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>9,834,269</td>
<td>3,211,037</td>
</tr>
<tr>
<td>Other assets, net</td>
<td>30,621</td>
<td>7,824</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$49,635,991</td>
<td>$6,606,854</td>
</tr>
</tbody>
</table>

### LIABILITIES AND STOCKHOLDERS’ DEFICIENCY

<table>
<thead>
<tr>
<th>Category</th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>$19,055,822</td>
<td>$11,044,774</td>
</tr>
<tr>
<td>Notes payable, current (Note 9 and 13)</td>
<td>8,368,379</td>
<td>320,000</td>
</tr>
<tr>
<td>Loans from related parties (Note 3)</td>
<td>19,700</td>
<td>13,864,241</td>
</tr>
<tr>
<td>Deferred tax liability (Note 9)</td>
<td>1,502,122</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>28,946,023</td>
<td>25,229,015</td>
</tr>
<tr>
<td>Derivative liability (Note 14)</td>
<td>7,820,283</td>
<td>—</td>
</tr>
<tr>
<td>Common stock payable</td>
<td>1,123,188</td>
<td>—</td>
</tr>
<tr>
<td>Warrants to be issued (Note 9)</td>
<td>—</td>
<td>24,962,507</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>37,889,494</td>
<td>50,191,522</td>
</tr>
<tr>
<td>Redeemable non-controlling interest (Note 7)</td>
<td>4,073,898</td>
<td>—</td>
</tr>
<tr>
<td>Stockholders’ Equity (Deficiency) (Note 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series H Convertible Preferred Stock, $.001 par value; authorized 109,000 shares, 0 and 63,000 issued shares at July 31, 2019 and 2018, respectively</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>Series I Convertible Preferred Stock, $.001 par value; authorized 6,000 shares, 0 and 16,590 issued shares at July 31, 2019 and 2018, respectively</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Common stock, $.001 par value; authorized 750,000,000 shares; 62,290,940 and 22,430,121 issued and outstanding at July 31, 2019 and 2018, respectively</td>
<td>62,290</td>
<td>22,430</td>
</tr>
<tr>
<td>Common stock payable</td>
<td>—</td>
<td>2,168,951</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>408,566,529</td>
<td>368,388,265</td>
</tr>
<tr>
<td>Accumulated deficit</td>
<td>(418,727,875)</td>
<td>(409,386,468)</td>
</tr>
<tr>
<td>Accumulated other comprehensive income</td>
<td>797,216</td>
<td>798,422</td>
</tr>
<tr>
<td>Non-controlling interest (Note 6)</td>
<td>16,974,439</td>
<td>(5,576,272)</td>
</tr>
<tr>
<td>Total Stockholders’ Equity (Deficiency)</td>
<td>7,672,599</td>
<td>(43,584,668)</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND STOCKHOLDERS’ EQUITY (DEFICIENCY)</strong></td>
<td>$49,635,991</td>
<td>$6,606,854</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these consolidated financial statements.

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## GENEREX BIOTECHNOLOGY CORPORATION AND SUBSIDIARIES
### CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME

<table>
<thead>
<tr>
<th>Year Ended July 31,</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue, net</td>
<td>$6,203,761</td>
<td>$3,244</td>
</tr>
<tr>
<td>Licensing income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$6,203,761</td>
<td>$703,244</td>
</tr>
<tr>
<td><strong>Cost of Goods Sold</strong></td>
<td>4,138,453</td>
<td>—</td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>2,065,308</td>
<td>703,244</td>
</tr>
<tr>
<td><strong>Operating expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development</td>
<td>1,748,882</td>
<td>839,147</td>
</tr>
<tr>
<td>Bad debt expense</td>
<td>3,252,439</td>
<td>—</td>
</tr>
<tr>
<td>General and administrative</td>
<td>21,409,428</td>
<td>2,359,706</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>26,410,749</td>
<td>3,198,853</td>
</tr>
<tr>
<td><strong>Operating Loss</strong></td>
<td>(24,345,441)</td>
<td>(2,495,609)</td>
</tr>
<tr>
<td><strong>Other Income (Expense):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest expense</td>
<td>(7,087,502)</td>
<td>(583,594)</td>
</tr>
<tr>
<td>Interest income</td>
<td>47,961</td>
<td>—</td>
</tr>
<tr>
<td>Changes in fair value of contingent purchase consideration (Note 9)</td>
<td>18,587,782</td>
<td>39,027,901</td>
</tr>
<tr>
<td>Change in fair value of derivative liability (Note 14)</td>
<td>2,125,449</td>
<td>—</td>
</tr>
<tr>
<td>Gain on extinguishment of debt</td>
<td>(16,000)</td>
<td>—</td>
</tr>
<tr>
<td>Impairment of long-lived assets (Note 9)</td>
<td>(287,587)</td>
<td>—</td>
</tr>
<tr>
<td>Other income, net</td>
<td>(31,456)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Net (Loss) Income</strong></td>
<td>(11,006,794)</td>
<td>35,948,698</td>
</tr>
<tr>
<td>Net loss attributable to noncontrolling interests (Note 13)</td>
<td>(1,665,387)</td>
<td>(385,400)</td>
</tr>
<tr>
<td><strong>Net Income (Loss) Available to Common Stockholders</strong></td>
<td>$ (9,341,407)</td>
<td>$36,334,098</td>
</tr>
<tr>
<td><strong>Net Income (Loss) per Common Share</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>$ (0.19)</td>
<td>$34.02</td>
</tr>
<tr>
<td>Diluted</td>
<td>$ (0.19)</td>
<td>$14.02</td>
</tr>
<tr>
<td><strong>Shares Used to Compute Income per Share (Note 5)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>48,360,127</td>
<td>1,068,101</td>
</tr>
<tr>
<td>Diluted</td>
<td>48,360,127</td>
<td>2,591,129</td>
</tr>
<tr>
<td><strong>Comprehensive Income:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>$ (9,341,407)</td>
<td>$36,334,098</td>
</tr>
<tr>
<td>Change in foreign currency translation adjustments</td>
<td>(1,206)</td>
<td>15,272</td>
</tr>
<tr>
<td><strong>Comprehensive Income Available to Common Stockholders</strong></td>
<td>$ (9,342,613)</td>
<td>$36,349,370</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these consolidated financial statements

F-26
### GENEREX BIOTECHNOLOGY CORPORATION AND SUBSIDIARIES

**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**

<table>
<thead>
<tr>
<th>Shares</th>
<th>Amount</th>
<th>Shares</th>
<th>Amount</th>
<th>Common Stock Payable</th>
<th>Additional Paid-in Capital</th>
<th>Accumulated Deficit</th>
<th>Accumulated Comprehensive Income</th>
<th>Sub Total</th>
<th>Non-controlling Interest</th>
<th>Total Stockholders’ Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance at July 31, 2017</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preferred Stock</td>
<td>$ 4</td>
<td>79,590</td>
<td>$ 22,430</td>
<td>121</td>
<td>$ 22,430</td>
<td>$ 2,168,951</td>
<td>$ 368,388,265</td>
<td>$(445,720,566)</td>
<td>$ 783,150</td>
<td>$(74,357,766)</td>
</tr>
<tr>
<td>Common Stock</td>
<td></td>
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</tr>
<tr>
<td><strong>Investment in subsidiary by noncontrolling interest</strong></td>
<td></td>
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<tr>
<td><strong>Currency translation adjustment</strong></td>
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<tr>
<td><strong>Net Income (Loss)</strong></td>
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<tr>
<td><strong>Balance at July 31, 2018</strong></td>
<td></td>
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</tr>
<tr>
<td>Preferred Stock</td>
<td>$ 4</td>
<td>79,590</td>
<td>$ 22,430</td>
<td>121</td>
<td>$ 22,430</td>
<td>$ 2,168,951</td>
<td>$ 368,388,265</td>
<td>$(409,388,468)</td>
<td>$ 798,422</td>
<td>$(38,008,396)</td>
</tr>
<tr>
<td>Common Stock</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Conversion of preferred series H</strong></td>
<td>(63,000)</td>
<td>(3)</td>
<td>25,200</td>
<td>000</td>
<td>25,200</td>
<td>—</td>
<td>(25,197)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Conversion of preferred series I</strong></td>
<td>(16,590)</td>
<td>(1)</td>
<td>6,639</td>
<td>045</td>
<td>6,639</td>
<td>—</td>
<td>(6,638)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Exercise of call option to acquire noncontrolling interest</strong></td>
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<tr>
<td><strong>Issuance of common stock payable</strong></td>
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<tr>
<td><strong>Issuance of stock options</strong></td>
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<tr>
<td><strong>Issuance of common stock for conversion of debt</strong></td>
<td></td>
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<tr>
<td><strong>Conversion of debt to equity</strong></td>
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<tr>
<td><strong>Antigen dividend</strong></td>
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<tr>
<td><strong>Issuance of warrants</strong></td>
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</tr>
<tr>
<td><strong>Acquisition of NCI of Regentys</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Acquisition of NCI of Olaregen</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Acquisition of Olaregen Series A Preferred Stock</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Reclassification of equity to liability</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Extinguishment of derivative liability associated with convertible notes</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Currency translation adjustment</strong></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance at July 31, 2019</strong></td>
<td>$ 4</td>
<td>62,290,940</td>
<td>$ 62,290</td>
<td>$ —</td>
<td>$ 408,566,529</td>
<td>$ (418,727,875)</td>
<td>$ 797,216</td>
<td>$ (9,301,840)</td>
<td>$ 16,974,439</td>
<td>$ 7,672,599</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these consolidated financial statements
### GENEREX BIOTECHNOLOGY CORPORATION AND SUBSIDIARIES

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

**Year Ended July 31,**

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CASH FLOWS FROM OPERATING ACTIVITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net (Loss) Income</td>
<td>($11,006,794)</td>
<td>$35,948,698</td>
</tr>
<tr>
<td>Adjustments to reconcile net (loss) income to net cash used in operating activities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>426,440</td>
<td>23,780</td>
</tr>
<tr>
<td>Impairment of long-lived assets</td>
<td>99,519</td>
<td>—</td>
</tr>
<tr>
<td>Impairment of goodwill</td>
<td>188,069</td>
<td>—</td>
</tr>
<tr>
<td>Stock compensation expense</td>
<td>3,006,203</td>
<td>—</td>
</tr>
<tr>
<td>Loss on extinguishment of debt</td>
<td>16,000</td>
<td>—</td>
</tr>
<tr>
<td>Changes in fair value of contingent purchase consideration</td>
<td>($18,587,782)</td>
<td>($39,027,901)</td>
</tr>
<tr>
<td>Amortization of debt discount</td>
<td>3,121,569</td>
<td>—</td>
</tr>
<tr>
<td>Non-cash interest expense from issuance on debt (derivative)</td>
<td>959,976</td>
<td>—</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities - convertible notes</td>
<td>988,267</td>
<td>—</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities - convertible warrants</td>
<td>(28,215)</td>
<td>—</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities - downside protection</td>
<td>(3,085,502)</td>
<td>—</td>
</tr>
<tr>
<td>Bad debt expense</td>
<td>3,252,439</td>
<td>—</td>
</tr>
<tr>
<td>Changes in operating assets and liabilities, net of effect of acquisitions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>(750,241)</td>
<td>(33,555)</td>
</tr>
<tr>
<td>Inventory</td>
<td>1,126,424</td>
<td>(2,040)</td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>9,285,221</td>
<td>872,164</td>
</tr>
<tr>
<td>Accrued interest on notes receivable</td>
<td>1,387,763</td>
<td>—</td>
</tr>
<tr>
<td>Other current assets</td>
<td>49,248</td>
<td>(74,360)</td>
</tr>
<tr>
<td>Other assets, net</td>
<td>(22,797)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Net cash used in operating activities</strong></td>
<td>($9,574,193)</td>
<td>($2,293,214)</td>
</tr>
</tbody>
</table>

**CASH FLOWS FROM INVESTING ACTIVITIES:**

| Purchase of property and equipment | (289,917)                | (8,552)                  |
| Purchase of intangible assets      | (26,487)                 | —                        |
| Disposal of property and equipment | 292,681                  | —                        |
| Disposal of intangible assets      | 62,091                   | —                        |
| Cash received in acquisition of a business, net of cash paid (Note 9) | 2,280,425               | —                        |
| **Net cash provided by (used in) investing activities** | 2,318,793                | (8,552)                  |

**CASH FLOWS FROM FINANCING ACTIVITIES**

| Loan proceeds from related party  | 230,441                  | 126,101                  |
| Payment of notes payable          | (51,625)                 | —                        |
| Proceeds from note payable        | 6,329,910                | —                        |
| Investment in subsidiary by noncontrolling interest | —            | 327,593                  |
| **Net cash provided by financing activities** | 6,508,726               | 453,694                  |
| Effects of currency translation on cash and cash equivalents | —           | 15,272                   |
| **Net increase (decrease) in cash and cash equivalents** | (747,880)               | (1,832,800)             |
| Cash and cash equivalents, beginning of period | 1,046,365               | 2,879,165                |
| **Cash and cash equivalents, end of period** | $298,485                | $1,046,365               |

### Supplemental Disclosure of Cash Flow Information

| Antigen dividend                  | —                         | $320,000                 |
| Conversion of HDS debt and issuance of call option (Note 9) | $14,056,113               | —                        |
| Conversion of debt to equity     | $8,257,918                | —                        |
| Exercise of call option          | $1,385,730                | —                        |
| Issuance of warrants             | $5,592,244                | —                        |
| Acquisition of Olaregen stock through issuance of common stock | $2,000,000               | —                        |
| Acquisition of Veneto through issuance of debt (Note 9) | —                         | $—                       |
| Acquisition of Regentys through issuance of debt (Note 9) | —                         | $—                       |
| Acquisition of Olaregen through issuance of debt (Note 9) | —                         | $—                       |

The accompanying notes are an integral part of these consolidated financial statements
Note 1 – Organization of Business and Going Concern:

Generex Biotechnology Corporation (“Generex” or the “Company”), was formed in the State of Delaware on September 4, 1997 and its year-end is July 31. It is engaged primarily in the research and development of drug delivery systems and the use of the Company’s proprietary technology for the administration of formulations of large molecule drugs to the oral (buccal) cavity using a hand-held aerosol applicator; and through the Company’s wholly-owned subsidiary, Antigen Express, Inc. (“Antigen”), has undertaken work on immunomedicines incorporating proprietary vaccine formulations.

On January 18, 2017, the Company closed an Acquisition Agreement pursuant to which the Company acquired a 51% interest in NuGenerex Diagnostics LLC “NGDx,” formerly known as Hema Diagnostic Systems, LLC, a Florida limited liability company established in December 2000 to market and distribute rapid test devices including infectious diseases. Since 2002, NGDx has been developing an expanding line of rapid diagnostic tests (RDTs) including such diseases as Human Immunodeficiency Virus (HIV) – 1/2, tuberculosis, malaria, hepatitis, syphilis, typhoid and dengue as well as other infectious diseases. Subsequently, on December 1, 2018, the Company exercised its call option and closed the acquisition of the remaining 49% interest in NGDx to become a wholly owned subsidiary of the Company.

On October 3, 2018, the Company entered into an Asset Purchase Agreement with Veneto Holdings, L.L.C. (“Veneto”) to purchase certain assets of Veneto and its subsidiaries. The Agreement bifurcated the closing. On October 3, 2018 (the “First Closing”), the Company purchased substantially all the operating assets of Veneto including (a) system of dispensing pharmacies, (b) one central adjudicating pharmacy, (c) a wholesale pharmaceutical purchasing company, and (d) an in-network laboratory. On November 1, 2018 the Company consummated the acquisition of the Second Closing Assets, consisting primarily of Veneto’s management services organization business and two additional ancillary services.

In March 2019, the Company changed its business model to no longer utilize their existing pharmacies. This shift resulted in breaking their existing lease agreements with their pharmacies, lab and lab related equipment which resulted in a liability of $744,958 as of July 31, 2019 and disposing the applicable leasehold improvements, reduction of employees and no longer holding and selling inventory. Going forward Veneto will conduct business exclusively through their management services organization and by entering into more ancillary provider service agreements with third party pharmacies as an effort to reduce fixed costs and salaries. This was made practicable due to the decrease in overall script volume coupled with delays in the Company being able to receive operating licenses from various government agencies.

On January 7, 2019, the Company closed two separate Acquisition Agreements pursuant to which the Company acquired a 51% interest in both Regentys Corporation (“Regentys”) and Olaregen Therapeutix Inc. (“Olaregen”). Regentys is a regenerative medicine company focused on developing novel treatments for patients with gastrointestinal (GI) disorders. Olaregen is a New York based regenerative medicine company that is preparing to launch its proprietary, patented, wound conforming gel matrix, Excellagen, an FDA 510K cleared wound healing product.

Going Concern

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“US GAAP”), which contemplate continuation of the Company as a going concern. The Company has experienced recurring net losses and negative cash flows from operations since inception and has an accumulated deficit of approximately $418.7 million and a working capital deficiency of approximately $28 million at July 31, 2019. The Company has funded its activities to date almost exclusively from debt and equity financings.
The Company will continue to require substantial funds to implement its new investment acquisition plans. Management’s plans in order to meet its operating cash flow requirements include financing activities such as private placements of its common stock, preferred stock offerings, and issuances of debt and convertible debt instruments. Management is also actively pursuing financial and strategic alternatives, including strategic investments and divestitures, industry collaboration activities and strategic partners.

These conditions raise substantial doubt about the Company’s ability to continue as a going concern for a period of twelve months from the balance sheet date. There are no assurances that such additional funding will be achieved and that the Company will succeed in its future operations. The unaudited condensed interim consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts of liabilities that might be necessary should the Company be unable to continue as a going concern. The Company’s inability to obtain required funding in the near future or its inability to obtain funding on favorable terms will have a material adverse effect on its operations and strategic development plan for future growth. If the Company cannot successfully raise additional capital and implement its strategic development plan, its liquidity, financial condition and business prospects will be materially and adversely affected, and the Company may have to cease operations.

**Note 2 – Summary of Significant Accounting Policies:**

**Basis of Presentation**

These financial statements include all of the Company’s subsidiaries, including those operating outside the United States and are prepared in accordance with US GAAP. The consolidated financial statements include the accounts of the Company and all of its wholly-owned and majority-owned subsidiaries. All intercompany transactions and balances have been eliminated. The subsidiaries included in the Company’s consolidated financial statements are: Generex Pharmaceuticals, Inc.; Generex (Bermuda), Inc. (dormant); Antigen Express, Inc.; 1097346 Ontario, Inc. (inactive); NuGenerex Diagnostics LLC “NGDx,” formerly known as Hema Diagnostic Systems, LLC; Hema Diagnostics Systems Panama S.A. (dissolved); Rapid Medical Diagnostics Corporation; NuGenerex Distribution Solutions, LLC; Grainland Pharmacy Inc. (inactive); Empire State Pharmacy Inc (inactive); NuGenerex Medical Marketing (inactive); Regentys Corporation (51%); and Olaregen Therapeutix Inc. (51%).

**Business Combinations**

Business combinations are accounted for using the acquisition method of accounting. Acquisition cost is measured as the aggregate of the fair value at the date of acquisition of the assets given, equity instruments issued, or liabilities incurred or assumed. Acquisition related costs are expensed as incurred (except for those costs arising on the issue of equity instruments which are recognized directly in equity). Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured at fair value on the acquisition date. Goodwill is measured as the excess of the acquisition cost and the amount of any non-controlling interest, over the fair value of the identifiable net assets acquired.

**Cash and Cash Equivalents**

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.
Patents

Capitalized patent costs represent legal costs incurred to establish patents and a portion of the acquisition price paid attributed to patents upon the acquisition of Antigen in August 2003 and the acquisition of NGDx in January 2017. When patents reach a mature stage, any associated legal costs are comprised mostly of maintenance fees and costs of national applications and are expensed as incurred. Capitalized patent costs are amortized on a straight-line basis over the remaining life of the patent. As patents are abandoned, the net book value of the patent is written off.

Revenue Recognition

It is the Company’s policy that revenues from product sales is recognized in accordance with ASC 606 “Revenue Recognition.” Five basic steps must be followed before revenue can be recognized; (1) Identifying the contract(s) with a customer that creates enforceable rights and obligations; (2) Identifying the performance obligations in the contract, such as promising to transfer goods or services to a customer; (3) Determining the transaction price, meaning the amount of consideration in a contract to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer; (4) Allocating the transaction price to the performance obligations in the contract, which requires the company to allocate the transaction price to each performance obligation on the basis of the relative standalone selling prices of each distinct good or services promised in the contract; and (5) Recognizing revenue when (or as) the entity satisfies a performance obligation by transferring a promised good or service to a customer. The amount of revenue recognized is the amount allocated to the satisfied performance obligation. Adoption of ASC 606 has not changed the timing and nature of the Company’s revenue recognition and there has been no material effect on the Company’s financial statements.

Revenue from the pharmacy services is recognized when the prescription is dispensed (picked up by the patient or shipped to the patient using common carrier or delivered by the pharmacies own personnel). At the time of dispensing each pharmacy has a contract with the insurance payor (item (i)); the insurance payor has accepted the claim for reimbursement from the pharmacy (item ii) and informed the pharmacy how much will be paid for the prescription (item (iii)); the insurance payor is now legally obligated to make payment on the accepted claim within a given period proscribed by statute (item (iv)); and, the prescription has been taken from the pharmacy inventory, placed into an individually labeled container specific to the patient, and the patient is able to take possession of the prescription (item (v)). Shipment to or pick up by the patient is the first time that all criteria for revenue recognition have been met.

Revenue from the laboratory services is recognized upon the completion of accessions (the requested laboratory test has been performed and the report has been issued to the requesting physician). After the test has been performed and reported, the insurance company and/or patient has an obligation to pay for medically necessary laboratory tests (items (i) and (ii)). Unlike the pharmacy services model, laboratory services are provided prior to insurance company approval; as a result, the seller’s price to buyer is not known until payment is provided (items (iii) and (iv)). Based on historical collections, the Company estimates the expected revenues associated with similar tests and recognizes the revenue when testing results have been provided (v).

Revenue from Olaregen and NGDx is recognized upon payment at the time the product(s) is released (shipment delivered using a common carrier), and the control is transferred which is simultaneous to when payment received and accepted.
Revenue from the provision of management services is recognized in accordance with the contractual terms of the relationship (item i); however, the current agreements in place typically specify that a percentage of the gross margin associated with the third-parties’ sales that the Company facilitates is to be remitted (iii), and as such, the revenue is considered earned upon completion of the third parties’ sales of such products (iv). Like pharmacy services described above, revenue is recognized when the prescription is dispensed (picked up by the patient or shipped to the patient using common carrier or delivered by the pharmacies own personnel) (v).

Provisions for estimated sales returns and uncollectible accounts are recorded in the period in which the related sales are recognized based on historical and anticipated rates.

The Company determines whether it is the principal or agent for its retail pharmacy contract services on a contract by contract basis. In the majority of its contracts, the Company has determined it is the principal due to: (i) being the primary obligor in the arrangement, (ii) having latitude in changing the product or performing part of the service, (iii) having discretion in supplier selection, (iv) having involvement in the determination of product or service specifications, and (v) having credit risk. The Company’s obligations under its client contracts for which revenues are reported using the gross method are separate and distinct from its obligations to the third-party pharmacies included in its retail pharmacy network contracts. Pursuant to these contracts, the Company is contractually required to pay the third-party pharmacies in its retail pharmacy network for products sold, regardless of whether the Company is paid by its clients. The Company’s responsibilities under its client contracts typically include validating eligibility and coverage levels, communicating the prescription price and the co-payments due to the third-party retail pharmacy, identifying possible adverse drug interactions for the pharmacist to address with the prescriber prior to dispensing, suggesting generic alternatives where clinically appropriate, and approving the prescription for dispensing. Although the Company does not have credit risk with respect to Retail Co-Payments or inventory risk related to retail network claims, management believes that all of the other applicable indicators of gross revenue reporting are present. For contracts under which the Company acts as an agent, revenue is recognized using the net method.

In March 2019, the Company changed its business model to no longer utilize their existing pharmacies. This shift resulted in breaking their existing lease agreements with their pharmacies, lab and lab related equipment leases which resulted in a liability of $784,999 as of July 31, 2019 and disposing the majority of applicable leasehold improvements, reduction of employees and no longer holding and selling inventory. Going forward Veneto will conduct business exclusively through their management services organization and by entering into more ancillary provider service agreements with third party pharmacies as an effort to reduce fixed costs and salaries. This was made practicable due to the decrease in overall script volume coupled with delays in the Company being able to receive operating licenses from various government agencies.

Intangible Assets

The costs of in-process research and development (“IPR&D”), related to the Company’s business combination with NGDx, were recorded at fair value on the acquisition date. IPR&D intangible assets are considered indefinite-lived intangible assets until completion or abandonment of the associated research and development efforts. IPR&D is not amortized, but is reviewed for impairment at least annually, or when events or changes in the business environment indicate the carrying value may be impaired. The Company also acquired licenses to operate pharmacies which were recorded at cost. They are evaluated annually for possible impairment. Management determined that as of July 31, 2019, the IPR&D and licenses are not impaired.

Impairment or Disposal of Long-Lived Assets and Intangibles

The Company accounts for the impairment or disposal of long-lived assets according to FASB ASC Topic 360, *Property, Plant and Equipment* (“ASC 360”). ASC 360 clarifies the accounting for the impairment of long-lived assets and for long-lived assets to be disposed of, including the disposal of business segments and major lines of business. Long-lived assets are reviewed when facts and circumstances indicate that the carrying value of the asset may not be recoverable. When necessary, impaired assets are written down to estimated fair value based on the best information available. Estimated fair value is generally based on either appraised value or measured by discounting estimated future cash flows. Considerable management judgment is necessary to estimate discounted future cash flows. Accordingly, actual results could vary significantly from such estimates.

At July 31, 2019, we recorded an asset impairment charge of $287,587 for an intangible assets acquired in 2018, comprised of $188,069 and $99,519 for the Empire State Pharmacies and Grainland Pharmacy assets, respectively.

Derivative Liability

The Company’s derivative financial instruments are measured at fair value using the Monte Carlo, Black Scholes and multinomial lattice models which takes into account, as of the valuation date, factors including the current exercise price, the expected life of the warrant, the current price of the underlying stock and its expected volatility, expected dividends on the stock and the risk-free interest rate for the term of the instrument. The liability is revalued at each reporting period and changes in fair value are recognized in the consolidated statements of operations and comprehensive loss under the caption “Change in fair value of derivative liabilities.”
Research and Development Costs

Expenditures for research and development are expensed as incurred and include, among other costs, those related to the production of experimental drugs, including payroll costs, and amounts incurred for conducting clinical trials. Amounts expected to be received from governments under research and development tax credit arrangements are offset against current research and development expense.

Income Taxes

Income taxes are accounted for under the asset and liability method prescribed by FASB ASC Topic 740. These standards require a company to determine whether it is more likely than not that a tax position will be sustained upon examination based upon the technical merits of the position. If the more likely than not threshold is met, a company must measure the tax position to determine the amount to recognize in the financial statements. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized.

Inventories

Inventories, which consist of both raw materials and finished goods, is valued at the lower of cost or net realizable value. Inventory costs are comprised primarily of product, labor, freight and duty. The Company writes down inventory for estimated obsolescence equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. For the year ending July 31, 2019, the Company had a write down of inventory for $645,351 related to obsolescence which is classified as cost of goods sold.

Property and Equipment

Property, equipment and improvements to leased premises are depreciated using the straight-line method over the estimated useful lives of the assets, or when applicable, the term of the lease, whichever is shorter. Major renewals or replacements that substantially extend the useful life of an asset are capitalized and depreciated. Property and equipment are depreciated using the straight-line method over the estimated useful lives of the assets, which are generally as follows:

<table>
<thead>
<tr>
<th>Leasehold improvements</th>
<th>The shorter of the expected useful life of the improvement or the lease term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and technological assets</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>3-7 years</td>
</tr>
</tbody>
</table>

Assets acquired through finance lease arrangements or long-term rental arrangements that transfer substantially all the risks and rewards associated with ownership of the asset to the Company (as lessee) are capitalized.

Goodwill

The Company accounts for purchased goodwill and intangible assets with indefinite lives in accordance with FASB Accounting Standards Codification 350-10, “Intangibles—Goodwill and Other,” (“ASC 350-10”) goodwill and intangible assets with indefinite lives are reviewed by us at least annually for impairment. For purposes of these analyses, the estimate of fair value is based on the income approach, which estimates the fair value based on future discounted cash flows. The estimate of future discounted cash flows is based on assumptions and projections that are believed to be currently reasonable and supportable. If it is determined the carrying value of goodwill or other intangible assets to be impaired, then the carrying value is reduced.

The purchase price of acquisitions is allocated to the assets acquired and liabilities assumed based upon their respective fair values and are subject to change during the twelve month period subsequent to the acquisition date. We engage independent third-party valuation firms to assist us in determining the fair values of assets acquired and liabilities assumed at the time of acquisition. Such valuations require us to make significant estimates and assumption, including projections of future events and operating performance. Fair value estimates are derived from established market values of comparable assets, or internal calculations of estimated future net cash flows. Our estimate of future cash flows is based on assumptions and projections we believe to be currently reasonable and supportable.
Stock-Based Compensation

The Company follows FASB ASC Topic 718 which requires that new, modified and unvested share-based payment transactions with employees, such as grants of stock options and restricted stock, be recognized in the consolidated financial statements based on their fair value at the grant date and recognized as compensation expense over their vesting periods, which typically conform to the performance period. The Company estimates the fair value of stock options as of the date of grant using the Black-Scholes option pricing model and restricted stock based on the quoted market price or the value of the services provided, whichever is more readily determinable. The Company also follows the guidance in FASB ASC Topic 505 for equity based payments to non-employees for equity instruments issued to consultants and other non-employees.

Net Income (Loss) per Common Share

Net earnings per share is computed by dividing income (loss) available to common stockholders by the weighted average number of common shares outstanding during the year. Diluted earnings per share gives effect to all dilutive potential common shares outstanding during the year. The computation of diluted earnings per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings. Diluted earnings per share is calculated using the treasury stock method.

Comprehensive Income/(Loss)

Other comprehensive income/(loss), which includes only foreign currency translation adjustments, is shown in the consolidated statements of operations and comprehensive loss and in the consolidated statements of changes in stockholders’ deficiency.

Foreign Currency Transactions and Translations

The functional and reporting currency of the Company and most of its subsidiaries is the United States Dollar. One subsidiary, Generex Pharmaceuticals, Inc., has a functional currency of the Canadian Dollar. Foreign denominated assets and liabilities of the Company are translated into U.S. dollars at the prevailing exchange rates in effect at the end of the reporting period. Revenue and expense accounts are translated at an average of exchange rates which were in effect during the period. Translation adjustments that arise from translating the foreign subsidiary’s financial statements from its functional currency to the Company’s reporting currency are recorded in the other comprehensive loss component of stockholders’ equity. Gains and losses resulting from foreign currency transactions are included in the consolidated statement of operations and comprehensive loss.

Fair Value of Financial Instruments

Fair value is defined under FASB ASC Topic 820 as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or the most advantageous market for an asset or liability in an orderly transaction between participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on the levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value. The levels are as follows:

- Level 1 - Quoted prices in active markets for identical assets or liabilities
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or corroborated by observable market data for substantially the full term of the assets or liabilities
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the value of the assets or liabilities
The Company’s financial instruments consist of cash and cash equivalents, trade receivables, other receivables, payables, and short term and long term debt. The carrying values of cash and cash equivalents, trade receivables, other receivables, and payables approximate their fair value due to their short maturities. The carrying value of long term debt approximates the fair value of debt of similar terms and remaining maturities available to the company.

At July 31, 2019, the Company did not have any assets measured at fair value on a recurring basis. The following is a listing of the Company’s liabilities required to be measured at fair value on a recurring basis and where they are classified within the fair value hierarchy as of July 31, 2018.

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call option</td>
<td>$—</td>
<td>$2,168,211</td>
<td>$—</td>
<td>$2,168,211</td>
</tr>
<tr>
<td>Total</td>
<td>$—</td>
<td>$2,168,211</td>
<td>$—</td>
<td>$2,168,211</td>
</tr>
</tbody>
</table>

The following is a listing of the Company’s liabilities required to be measured at fair value on a recurring basis and where they are classified within the fair value hierarchy as of July 31, 2019 and July 31, 2018:

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derivative liability</td>
<td>$—</td>
<td>—</td>
<td>$7,820,282</td>
<td>$7,820,282</td>
</tr>
<tr>
<td>Total</td>
<td>$—</td>
<td>—</td>
<td>$7,820,282</td>
<td>$7,820,282</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warrants to be issued</td>
<td>$—</td>
<td>$24,962,507</td>
<td>$—</td>
<td>$24,962,507</td>
</tr>
<tr>
<td>Total</td>
<td>$—</td>
<td>$24,962,507</td>
<td>$—</td>
<td>$24,962,507</td>
</tr>
</tbody>
</table>

Use of Estimates

The preparation of consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods.

The Company evaluates its estimates, including those related to long lived assets (including patents) impairment valuations, derivatives and contingencies and litigation, on an ongoing basis. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Critical accounting estimates are reviewed and discussed with the Board of Directors. The Company considers an accounting estimate to be critical if it requires assumptions to be made that were uncertain at the time the estimate was made, if changes in the estimate or if different estimates that could have been selected would have a material impact on our results of operations or financial condition.

Redeemable Non-Controlling Interest

As a result of the acquisition of Regentys, which had redeemable convertible preferred stock classified as a mezzanine instrument outside of the its equity accounts, such amounts are reclassified as redeemable non-controlling interest as the carrying value determined by the purchase price allocation at the time of the acquisition of Regentys.

Derivative Financial Instruments

As a result of the early adoption of ASU 2017-11 in the second quarter of the fiscal year 2019, the Company has no derivative financial instruments with down round features classified as a liability at July 31, 2019.
Adoption of New Accounting Standards

We have reviewed the FASB issued Accounting Standards Update ("ASU") accounting pronouncements and interpretations thereof that have effective dates during the periods reported and in future periods. The Company does not believe that any new or modified principles will have a material impact on the Company’s reported financial position or operations in the near term. The applicability of any standard is subject to the formal review of our financial management and certain standards are under consideration.

- ASU 2014-09, “Revenue from Contracts with Customers (Topic 606)”

- ASC 815-40 (formerly SFAS No. 133 “Accounting for derivative instruments and hedging activities”), requires that embedded derivative instruments be bifurcated and assessed, along with free-standing derivative instruments such as warrants, on their issuance date and in accordance with ASC 815-40-15 (formerly EITF-00-19 “Accounting for derivative financial instruments indexed to, and potentially settled in, a company’s own stock”) to determine whether they should be considered a derivative liability and measured at their fair value for accounting purposes. In determining the appropriate fair value, the Company uses the Black-Scholes option pricing formula and present value pricing.

- ASU 2016-08 “Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net).”

- ASU 2016-10, “Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing.”


- ASU 2016-12, “Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients.”

- ASU 2016-20, “Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers.”


- ASU 2017-13, “Revenue Recognition (Topic 605), Revenue from Contracts with Customers (Topic 606), Leases (Topic 840) and Leases (Topic 842). Amendments to SEC Paragraphs Pursuant to the Staff Announcement at the July 20, 2017 EITF Meeting and Recession of Prior SEC Staff Announcements and Observer Comments.”
The standards provide companies with a single model for use in accounting for revenue arising from contracts with customers that supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue when control of the goods or services transfers to the customer, as opposed to recognizing revenue when the risks and rewards transfer to the customer under the existing revenue guidance. The guidance permits companies to either apply the requirements retrospectively to all prior periods presented, or apply the requirements in the year of adoption, through a cumulative adjustment. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. The guidance was adopted as of August 1, 2018. The Company found that the adoption did not have a material effect on the Company’s consolidated financial statements and related disclosures.

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities (“ASU 2016-01”). This standard affects accounting for equity instruments, financial liabilities under the fair value option and the presentation and disclosure requirements of financial instruments. In February 2018, the FASB issued ASU 2018-03, “Technical Corrections and Improvements to Financial Instruments (Subtopic 825-10) – Recognition and Measurement of Financial Assets and Financial Liabilities”. This update was issued to clarify certain narrow aspects of guidance concerning the recognition of financial assets and liabilities established in ASU No. 2016-01, “Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities”. This includes an amendment to clarify that an entity measuring an equity security using the measurement alternative may change its measurement approach to a fair valuation method in accordance with Topic 820, Fair Value Measurement, through an irrevocable election that would apply to that security and all identical or similar investments of the same issuer. The update is effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years beginning after June 15, 2018. The guidance was adopted as of August 1, 2018 and did not have a material effect on the Company’s consolidated financial statements and related disclosures.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (“ASU 2016-15”). ASU 2016-15 addresses eight specific cash flow issues with the objective of reducing diversity in practice regarding how certain cash receipts and cash payments are presented in the statement of cash flows. The standard provides guidance on the classification of the following items: (1) debt prepayment or debt extinguishment costs, (2) settlement of zero-coupon debt instruments, (3) contingent consideration payments made after a business combination, (4) proceeds from the settlement of insurance claims, (5) proceeds from the settlement of corporate-owned life insurance policies, (6) distributions received from equity method investments, (7) beneficial interests in securitization transactions, and (8) separately identifiable cash flows. The Company is required to adopt ASU 2016-15 for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2017 on a retrospective basis. The guidance was adopted as of August 1, 2018 and did not have a material effect on the Company’s consolidated financial statements and related disclosures.

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash, which requires that a statement of cash flows should include the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents when reconciling the beginning-of-period and end-of-period total amounts. The update is effective for fiscal years beginning after December 15, 2017. The guidance was adopted as of August 1, 2018 and did not have a material effect on the Company’s consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU 2017-01, “Business Combinations (Topic 805): Clarifying the Definition of a Business.” These amendments clarify the definition of a business. The amendments affect all companies and other reporting organizations that must determine whether they have acquired or sold a business. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill, and consolidation. The amendments are intended to help companies and other organizations evaluate whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This update is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. The guidance was adopted as of August 1, 2018 and did not have a material effect on the Company’s consolidated financial statements and related disclosures.

In May 2017, the FASB issued ASU 2017-09, “Compensation—Stock Compensation” (Topic 718): Scope of Modification Accounting. The amendments provide guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718 Compensation-Stock Compensation. An entity should account for the effects of a modification unless all the following are met: 1. The fair value (or calculated value or intrinsic value, if such an alternative measurement method is used) of the modified award is the same as the fair value (or calculated value or intrinsic value, if such an alternative measurement method is used) of the original award immediately before the original award is modified. If the modification does not affect any of the inputs to the valuation technique that the entity uses to value the award, the entity is not required to estimate the value immediately before and after the modification. 2. The vesting conditions of the modified award are the same as the vesting conditions of the original award immediately before the original award is modified. 3. The classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award is modified. The ASU is effective for all entities for annual periods, including interim periods within those annual periods, beginning after December 15, 2017. The guidance was adopted as of August 1, 2018 and did not have a material effect on the Company’s consolidated financial statements and related disclosures.
Recently Issued Accounting Standards

In February 2016, the FASB issued ASU No. 2016-02, Leases (“ASU 2016-02”). In January 2018, the FASB issued ASU 2018-01, which provides additional implementation guidance on the previously issued ASU 2016-02. Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and (2) a right-of-use asset, which is an asset that represents the lessor's right to use, or control the use of, a specified asset for the lease term. The Company is required to adopt ASU 2016-02 for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2018. This ASU will be effective for us in the first quarter of 2019 which begins with interim period ending October 31, 2019. We do not anticipate the adoption of this ASU to have a material impact to our financial statements.

In January 2017, the FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment (Topic 350), which eliminates Step 2 from the goodwill impairment test. Instead, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The Company will adopt the standard effective August 1, 2020. The Company is evaluating the effect that ASU 2017-04 will have on its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception. Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, Distinguishing Liabilities from Equity, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable non-controlling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. The Company early adopted the ASU 2017-11 in the second quarter as of January 31, 2019.

In February 2018, the FASB issued ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which was issued to address the income tax accounting treatment of the stranded tax effects within other comprehensive income due to the prohibition of backward tracing due to an income tax rate change that was initially recorded in other comprehensive income. This issue came about from the enactment of the TCJA on December 22, 2017 that changed the Company’s federal income tax rate from 35% to 21% effective January 1, 2018 and the establishment of a territorial-style system for taxing foreign-source income of domestic multinational corporations. In December 2017, the SEC issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Act (“SAB118”), which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment. The Company remeasured its deferred tax assets and liabilities as of July 31, 2018, applying the reduced corporate income tax rate and recorded a provisional decrease to the deferred tax assets of $31,876,520, with a corresponding adjustment to the valuation allowance. In the fourth quarter of fiscal year ended July 31, 2019, we completed our analysis to determine the effect of the Tax Act and there were no material adjustments as of July 31, 2019.

In August 2018, the FASB issued ASU 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement”, which adds disclosure requirements to Topic 820 for the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. This ASU is effective for interim and annual reporting periods beginning after December 15, 2019. The Company is evaluating the effect that ASU 2018-13 will have on consolidated financial statements.

Note 3 - Loans from Related Parties

NGDx received substantially all of its funding from a shareholder, who owned 98.9% of NGDx prior to the acquisition of NGDx by the Company. The loan is unsecured, matures on December 31, 2019 and bears interest at 0.75% per annum through January 19, 2017, and bears no interest thereafter. Upon acquisition of NGDx by the Company (see Note 9), the outstanding principal balance was $13,239,837 and total accrued interest of $191,869. This loan was subject to a call option (Note 9) which, if exercised, the principal and accrued interest through January 18, 2017 would be eliminated.

Pursuant to the January 18, 2017 Acquisition, Mr. Berkman, previous owner of NGDx and debt holder, agreed, under certain conditions to transfer the remaining 49% of the NGDx equity to the Company for a consideration of $1.00. On December 1, 2018, the Company and Mr. Berkman entered into an Agreement, Assignment and Release, pursuant to which Mr. Berkman transferred the remaining NGDx equity interests to the Company, waiving and releasing any conditions to such transfer. NGDx is now a wholly owned subsidiary of the Company. In addition to the assignment of the NGDx interests, Mr. Berkman released these loans in exchange for shares of the Company’s common stock valued at the aggregate of such amount using the closing price for the common stock on November 30, 2018. The closing price was $18.99, resulting in 32,881 shares issuable to Mr. Berkman. This transaction resulted in Mr. Berkman’s advances of $624,404 plus the loan and call option which resulted in additional paid in capital of $13,431,705 which was reclassified to the Company’s stockholders’ equity as an extinguishment of debt for $14,056,109.

Pursuant to the January 7, 2019 acquisition of Regentys, the Company assumed $16,505 of loans payable to Regentys shareholders. During the year ended July 31, 2019, the Company repaid $3,305 of the principal balance and borrowed an additional $6,500. The outstanding balance as of July 31, 2019 was $19,700.
Note 4 - Commitments and Contingencies:

Pending Litigation

The Company is a defendant in one legal proceeding relating to alleged breach of contract and claims against certain of the Company's original buccal delivery patents. The Company is also a defendant in two legal proceedings brought by a former executive officer and her affiliate. These legal proceedings have been reported in the Company's prior periodic reports. No activity has occurred in these cases in several years, and the Company now considers them dormant.

In December 2011, a vendor of the Company commenced an action against the Company and its subsidiary, Generex Pharmaceuticals, Inc., in the Ontario Superior Court of Justice claiming damages for unpaid invoices including interest in the amount of $429,000, in addition to costs and further interest. The Company responded to this statement of claim and asserted a counterclaim in the proceeding for $200,000 arising from the vendor’s breach of contract and detinue, together with interest and costs. On November 16, 2012, the parties agreed to settle this action and the Company has agreed to pay the plaintiff $125,000, following the spinout of its subsidiary Antigen, from the proceeds of any public or private financing related to Antigen subsequent to such spinout. Each party agreed to execute mutual releases to the claim and counterclaim to be held in trust by each party’s counsel until payment of the settlement amount. Following payment to the plaintiff, the parties agree that a Consent Dismissal Order without costs will be filed with the court. If the Company fails to make the payment following completion of any post-spinout financing related to Antigen or any other subsidiaries, the Plaintiffs may take out a judgment in the amount of the claim plus interest of 3% per annum and costs fixed at $25,000. This has been accrued in the consolidated financial statements.

On August 22, 2017, Generex received a letter from counsel for Three Brothers Trading LLC, d/b/a Alternative Execution Group (“AEXG”), claiming breach of a Memorandum of Understanding (“MOU”) between Generex and AEXG. The MOU related to AEXG referring potential financing candidate to Generex. The letter from AEXG counsel claimed that Generex’s acceptance of $3,000,000 in financing from Pharma Trials, LLC, in March 2017, violated the provisions of the MOU prohibiting Generex from seeking other financing, with certain exceptions, for a period of 60 days after execution of the MOU. AEXG has demanded at least $210,000 in cash and $4,000 warrants for Generex stock convertible at $2.50 per share, for attorney’s fees and costs. On December 2, 2018, an arbitrator awarded Three Brothers Trading LLC, d/b/a Alternative Execution Group (“AEXG”) an aggregate of $315,695 in damages, costs and fees as well as warrants exercisable for 84,000 shares of Generex Common Stock at an exercise price of $2.50 per share. The awards were made pursuant to claims under a Memorandum of Understanding (“MOU”) between Generex and AEXG related to AEXG referring potential financing candidate to Generex. AEXG filed a petition to confirm the arbitrator’s award in the United States District Court for the Southern District of New York. The petition includes a demand of $3,300,360 as the value of the Warrants. The arbitrator did not award the specific amount of $3.3 million, but only liquidated damages in the amount of $220,000 and the value of 84,000 warrants “as of today” (the date of the award) plus attorney’s fees, certain costs, prejudgment and post-judgment interest (which continues to run on a daily basis) and arbitration fees. As of July 31, 2019, the value of the warrants have a market value of $232,283. Between the warrants and the $220,000 of liquidated damages, the Company has accrued $452,283 related to this matter.

On June 28, 2018, the Company was named in respect of a claim by Burrard Pharmaceutical Enterprises Ltd. and Moa’yeri Kayhan for unspecified damages and other remedies issued by the Supreme Court of British Columbia. The claim is made in connection with one advanced against Burrard and Kayhan by Middle East Pharmaceutical Factory L.L.C., a foreign corporation, for fraudulent or negligent misrepresentation. Middle East alleges that it was misled by Burrard and Kayhan into believing that Burrard had rights to distribute Generex product in the Middle East. Burrard and Kayhan allege that they did have rights in that regard, which the Company denies. The matter remains at the pleadings stage and the Company is investigating the facts.

On October 26, 2018, Generex entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold its Note Due October 26, 2019 (“Note”) in the principal amount of $682,000. On January 25, 2019, Generex received a letter from the purchaser’s counsel stating that the Note was in default because Generex’s common stock was not listed on NASDAQ within 90 days after the issuance of the Note. The letter demanded repayment in full. On February 12, 2019, the Purchaser filed a Motion for Summary Judgment in lieu of complaint in the Supreme Court of New York, demanding the aggregate principal amount, default interest and costs. Counsel for Generex and Alpha have engaged in settlement discussions.

On March 21, 2019 Compass Bank filed suit against NuGenerex Distributions Solutions 2, L.L.C. in the District Court of Dallas County, Texas requesting damages of $3,413,000. In connection with the closing of the Veneto acquisition, Compass Bank had a lien on certain assets that were supposed to be transferred into the ownership of NuGenerex, a subsidiary of Generex. Those assets were never transferred due to regulatory impositions. Generex had listed Compass Bank as an intended third-party beneficiary to the transaction in relation to the assets liened and Veneto ceased payments upon the loan which the lien generated from. Compass bank filed suit against 6 parties involved in the transaction to collect on the loan, including NuGenerex. NuGenerex’s position is the contract was frustrated by the assets that were liened were never transferred, NuGenerex did not receive any benefit from the agreement, and thus NuGenerex is not responsible to Compass Bank for repayment of a loan on assets not transferred. Generex intends to implead Brooks Houghton for indemnification who was retained to perform due diligence on the transaction.
In May 2019 Brooks Houghton threatened litigation by way of a FINRA Dispute Resolution. Brooks Houghton, who the managing representative is Mr. Centonfanti a prior board member, was under contract to perform due diligence on the Veneto transaction, as well as other unrelated items. The Veneto transaction closed three times, each time with a reduction in price due to material negative circumstances. Brook Houghton, who was under contract to perform due diligence, claims their fee should be paid on the initial closing price not the ultimate resolution of the matter. The company offered to compensate Brooks Houghton pursuant to agreement, 3% on the most recent closing price for Veneto for which Brooks Houghton may have performed some level of work on, payable in kind, and Brooks Houghton declined the offer. Brooks Houghton is claiming $450,000 for the first closing of Veneto, $714,000 for the second closing of Veneto, $882,353 for the Regentys acquisition, and $705,882 for Olaregen. The company is awaiting service. As of July 31, 2019, the Company has accrued for the full $2,752,235 balance.

With respect to all litigation, as additional information concerning the estimates used by the Company becomes known, the Company reassesses its position both with respect to accrued liabilities and other potential exposures.

**Commitments**

**Lease Agreements**

There are rental agreements in effect at Hema Diagnostics Systems, Empire State Pharmacy Inc. and Regentys Corporation which have the following commitments as of July 31, 2019: $112,801 in fiscal year 2020 and $39,879 in fiscal year 2021.

**Intellectual Property**

In connection with the Company’s acquisition of Olaregen, intellectual property was acquired that had a valuation of $650,000 prior to being acquired and revalued. This initial $650,000 valuation represented the initial payment remitted by Olaregen in accordance with the $4 million signed commitment agreement entered into with Activation Therapeutics, Inc. The remaining $3.35 million balance is to be paid in quarterly installments equal to 10% of quarterly net sales generated by Activation Therapeutics assuming the Excelagen average selling price per unit exceeds $800. In the event that the average selling price per unit is less than $800 per unit, cost of goods sold shall be excluded from the computation of net sales.

**Note 5 – Property and Equipment**

Property and equipment, net consisted of the following:

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th></th>
<th>July 31, 2018</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and technological assets</td>
<td>$163,168</td>
<td></td>
<td>$11,365</td>
<td></td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>386,929</td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>73,227</td>
<td></td>
<td>19,879</td>
<td></td>
</tr>
<tr>
<td>Leasehold Improvements</td>
<td>16,596</td>
<td></td>
<td>21,501</td>
<td></td>
</tr>
<tr>
<td></td>
<td>639,920</td>
<td></td>
<td>52,745</td>
<td></td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>(132,927)</td>
<td></td>
<td>(21,209)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$499,993</td>
<td></td>
<td>$31,536</td>
<td></td>
</tr>
</tbody>
</table>

Depreciation expense related to property and equipment amounted to $170,605 and $21,782 for the years ended July 31, 2019 and 2018, respectively.

For the year ended July 31, 2019, the Company had $292,681 of disposals and $11,208 of impairment of long-lived assets. The $292,681 of disposals pertains to Veneto and was mostly the result of their shift in business operations during March 2019 described in Notes 1 and 2. The $11,208 impairment of long-lived assets pertains to Grainland Pharmacies Holdings, LLC which ceased to operate – see Note 13.

**Note 6 - Stockholders’ Equity:**

**Common Stock**

On November 13, 2018, the Company declared a stock dividend on its outstanding Common Stock for stockholders of record date to be determined (the “Record Date”). As a result, all stockholders on the Record Date received twenty new shares of Common Stock for each share of Common Stock owned by them as of that date. Proportional adjustments for the reverse stock split were made to the Company’s outstanding stock options, and warrants including all share and per-share data, for all amounts and periods presented in the condensed interim consolidated financial statements.
On January 18, 2017, the Company issued 1,117,431 shares of common stock for the acquisition of 51% of NGDx and is obligated to issue 4,830,000 shares of common stock upon the conclusion of the Company’s reverse stock split which were issued on October 26, 2018.

On January 30, 2019, the Company declared a dividend to holders of Generex common shares of its subsidiary Antigen Express, Inc., d/b/a NuGenerex Immuno-Oncology. On February 25, 2019, Generex shareholders received a dividend of one share of Antigen Express, Inc. for every four shares of Generex common stock which amounted to an issuance of 15,076,849 shares, representing approximately 3.77% ownership of Antigen. The fair value of the shares issued amounted to $1,070,456 and was recorded as a dividend with a corresponding increase to noncontrolling interest.

In May 2019, the Company issued 4,000,000 shares of common stock and a $2 million note payable for the acquisition of 592,682 shares of Series A Preferred Stock of Olaregen pursuant to a Stock Purchase Agreement entered into January 14, 2019 subject to the approval of the Board of Directors of Olaregen and consummated on May 10, 2019.

In July 2019, the Company issued 1,920,376 shares of common stock for the conversion debt in the amount of $4,350,571.

During the fourth quarter of 2019, the Company converted a note payable of $53,000 for 30,000 shares of common stock with a fair value of $69,000. The difference between the fair value of the common stock and the outstanding balance of the note payable was recorded as a loss on extinguishment of debt. As of July 31, 2019, the shares were yet to be issued by the Company.

As of July 31, 2018, 302,614 shares remained to be issued resulting in common stock payable of $2,168,951. During the year ended July 31, 2019, 1,238,517 shares of common stock payable were issued. As of July 31, 2019, 588,658 shares remain to be issued resulting in common stock payable of $1,123,188.

Series H and Series I Convertible Preferred Stock

The Company has authorized 109,000 shares of designated non-voting Series H Convertible Preferred Stock with a stated value of $1,000 per share and authorized 6,000 shares of designated non-voting Series I Convertible Preferred Stock with a stated value of $47.61 per share pursuant to the Purchase Agreement dated March 27, 2017. The Series H Preferred Stock was scheduled to be sold in four tranches to the Purchaser. Under the Securities Purchase Agreement, in the event the Purchaser failed to purchase 100% of the shares of Preferred Stock at any given Closing, the Company can decline to sell any further securities to the Purchaser (the “Purchase Agreement”).

The Series H and Series I Convertible Preferred Stock are convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price of $0.12 per share.

Neither Series H nor Series I Convertible Preferred Stock have special dividend rights. If the Company pays dividends on its common stock, the holders of the preferred stock will receive dividends in the amount they would have received had they converted the preferred stock to common stock.

At closing of the first tranche on March 28, 2017, the Company issued 63,000 shares of Series H Preferred Stock for a purchase price of $3,000,000. The proceeds of this sale were paid directly on the Company’s behalf to Emmaus as an additional deposit under the Company’s Emmaus LOI. The full amount of such proceeds was repaid to the Company in July 2017 upon termination of the Emmaus LOI. On December 1, 2018, after payment of the dividend, B-H Sanford, LLC, converted all of its holding of the Company’ Series H Convertible Preferred Stock owned by it into 25,200,000 shares of common stock.

Prior to payment of Generex’s 20 for 1 common stock dividend, on November 30, 2018, Joseph Moscato, the Company’s President and Chief Executive Officer, and Lawrence Salvo, a member of the Company’s Board of Directors, converted all shares of the Company’ Series I Convertible Preferred Stock owned by them. Mr. Moscato received 3,276,000 shares of the Company’s Common Stock upon conversion. Mr. Salvo received 3,354,645 shares of the Company’s Common Stock upon conversion.

Non-controlling Interest

Mr. Berkman agreed, under certain conditions to transfer the remaining 49% of the NGDx equity to the Company for a consideration of $1.00. On December 1, 2018, the Company and Mr. Berkman entered into an Agreement, Assignment and Release, pursuant to which Mr. Berkman transferred the remaining NGDx equity interests to the Company, waiving and releasing any conditions to such transfer. As of December 1, 2018, NGDx is a wholly owned subsidiary of the Company. During the year ended in July 31, 2019, there was a net loss attributable to the non-controlling interest (49%) in NGDx of $122,692 and contributions made of $133,679. As of July 31, 2019, and 2018, the non-controlling interest in NGDx was $0 and $5,576,272, respectively.

Pursuant to the Company’s acquisition of Regentys on January 7, 2019 to acquire a 51% interest, the Company was issued 12,048,161 shares of Regentys common stock. As of July 31, 2019, Regentys had a total of 18,623,278 shares of common stock and 2,793,192 Series A voting preferred stock for a total of 21,416,470 total voting shares outstanding. As such, there are 9,368,309 of shares that belong to non-controlling interest shareholders which represents a 43.74% non-controlling interest.
Pursuant to the Company’s acquisition of Olaregen on January 7, 2019 to acquire a 51% interest, the Company was issued 3,282,632 shares of Olaregen common stock. As of July 31, 2019, Olaregen had a total of 5,648,819 shares of common stock and 592,683 Series A voting preferred stock for a total of 6,241,502 total voting shares outstanding. As such, there are 2,958,870 of shares that belong to non-controlling interest shareholders which represents a 47.41% non-controlling interest.

On November 1, 2018, the Company completed its second closing of Veneto Holdings, L.L.C. (“Veneto”) which granted the Company Rapport Services, LLC (“Rapport”) through the ownership of the units of Class B membership interests providing control of Rapport as only the Class B Member is entitled to elect the nominees to the Board of Managers, which constitute a one percent (1%) ownership in Rapport. The remaining interests represent a 99% non-controlling interest.

Note 7 – Redeemable Non-Controlling Interest:

Pursuant to the Company’s acquisition of 51% of the outstanding capital stock of Regentys, Regentys had authorized 7,500,000 shares of redeemable Series A Convertible Preferred Stock (“Preferred Stock A”), with a par value of $0.0001 and redemption value of $1.46 per share of which 2,793,192 Preferred Stock A was outstanding as of the date of acquisition and as of July 31, 2019. Preferred Stock may be converted into common stock at the initial conversion ratio of 1:1 which ratio shall be adjusted in accordance with stock dividends, splits, combinations and other similar events, including the sale of additional shares of common or preferred stock and the holders of Preferred Stock A are entitled to vote, together with the holders of Regentys common stock, on all matters submitted to stockholders of Regentys for a vote. At any time after November 1, 2026, the holders of the Company’s Series A Preferred Stock will have the right to require the Company to redeem all or a portion of their shares for cash at a redemption price equal to its liquidation value. Accordingly, this Preferred Stock A was valued to be $4,073,898 at the time of acquisition of Regentys and reclassified as Redeemable Non-Controlling Interest outside of stockholders’ deficit on the condensed interim consolidated balance sheets.

Note 8 – Inventory

Inventory consists of the following components:

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>$77,782</td>
<td>$—</td>
</tr>
<tr>
<td>Finished goods</td>
<td>285,226</td>
<td>12,075</td>
</tr>
<tr>
<td>Total Inventory</td>
<td>$363,008</td>
<td>$12,075</td>
</tr>
</tbody>
</table>

Note 9 – Notes Payable

On October 26, 2018, Generex entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold its Note Due October 26, 2019 (“Note”) in the principal amount of $682,000. The purchase price of the Note was $550,000 from which Generex was required to pay the $15,000 fee of the investor’s counsel. The remaining $147,000 of principal amount represents original issue discount. The Note does not bear any stated interest in addition to the original issue discount. The effective interest is 27.5%.

On November 25, 2018, Generex entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold its Note due November 26, 2019 (“Note”) in the principal amount of $1,060,000. The purchase price of the Note was $1,000,000. The remaining $60,000 of principal amount represents original issue discount. The Note does not bear any stated interest in addition to the original issue discount. In May 2019, the Company issued 400,000 shares of common stock for full satisfaction of this Note.

On January 24, 2019, Generex entered into Securities Purchase Agreements with three investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest at 10% per annum (the “Notes”) in the aggregate principal amount of $2,110,000. The purchase price of the Notes was $2,010,000 and the remaining $100,000 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 70% of the lowest trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. Pursuant to the Securities Purchase Agreements, Generex also sold warrants to the investors to purchase up to an aggregate 120,570 shares of common stock. The fair value of the derivative liability and warrants as of the date of issuance was in excess of the Notes (Note 14) resulting in full discount of the Notes. In July 2019, the Company issued 1,065,826 shares of common stock for the conversion of $1,425,000 of principal and $76,976 of accrued interest. Out of the 1,065,826 shares, 266,793 were recorded as common stock payable until the shares were delivered in August 2019.
In February 2019, Generex entered into Securities Purchase Agreements with two investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest at 10% per annum (the "Notes") in the aggregate principal amount of $1,500,000. The purchase price of the Notes was $1,425,000 and the remaining $75,000 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 70% of the lowest trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. Pursuant to the Securities Purchase Agreements, Generex also sold warrants to the investors to purchase up to an aggregate 102,143 shares of common stock. The fair value of the derivative liability and warrants as of the date of issuance was in excess of the Notes (Note 14) resulting in full discount of the Notes.

In April 2019, Generex entered into Securities Purchase Agreements with two investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest at 10% per annum (the “Notes”) in the aggregate principal amount of $1,060,000. The purchase price of the Notes was $1,010,000 and the remaining $50,000 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 70% of the lowest trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. Pursuant to the Securities Purchase Agreements, Generex also sold warrants to the investors to purchase up to an aggregate 176,968 shares of common stock. The fair value of the derivative liability and warrants as of the date of issuance was in excess of the Notes (Note 14) resulting in full discount of the Notes.

In May 2019, the Company consummated a Stock Purchase Agreement entered into January 14, 2019 to which the Company agreed to sell and sold $2,000,000 Promissory Note bearing interest at 7% per annum (the "Notes") originally due and payable on August 1, 2019. The note remains active and interest has continued to accrue while new terms of the note are in process of being negotiated.

In July 2019, Generex entered into Securities Purchase Agreements with two investors pursuant to which the Company agreed to sell and sold convertible notes bearing interest at 9% per annum (the “Notes”) in the aggregate principal amount of $446,600. The purchase price of the Notes was $400,000 and the remaining $46,600 of principal amount represents original issue discount. Subject to certain ownership limitations, the Notes will be convertible at the option of the holder at any time into shares of the Company’s common stock at an effective conversion price determined as follows: the lesser of a price determined as of the date of closing; and 70% of the lowest trading price of the common stock on the ten days prior to conversion. The embedded conversion feature of these Notes was deemed to require bifurcation and liability classification, at fair value. The fair value of the derivative liability as of the date of issuance was $206,548 and was recorded as a discount of the Notes.

For the year ending July 31, 2019, amortization of debt discount was $3,008,849 leaving a remaining debt discount balance as of July 31, 2019 of $1,938,994.

On December 28, 2017, the Company through its wholly owned subsidiary NuGenerex, completed the acquisition of the assets and 100% of the membership interests of two pre-operational pharmacies, Empire State Pharmacy Holdings, LLC and Grainland Pharmacy Holdings, LLC, pursuant to the bills of sale for a consideration of $320,000 Promissory Note due and payable in full on June 28, 2018 bearing an annual interest rate of 3%. The note was extended by six months and set to mature with the same terms on December 28, 2018. The note remains active and interest has continued to accrue while new terms of the note are in process of being negotiated.

Pursuant to the second closing of the acquisition of certain operating assets of Veneto Holdings, L.L.C. and its affiliates, Generex’s wholly owned subsidiary agreed to assume outstanding debt of Veneto subsidiaries to Compass Bank, including obligations under a term loan and a revolving line of credit. Claiming three separate types of default, Compass Bank has demanded payment in full of amounts due under the term loan and revolving line of credit, in an aggregate amount of approximately $3,413,000. Generex believes it has defenses to such demand, including that the bank was not an intended beneficiary of the subsidiary’s agreement to assume the debt.

Pursuant to its acquisition of Regentys, the Company inherited convertible notes with several investors which collectively held a principal plus of $615,000 as of the date of acquisition. During the year ended July 31, 2019, $187,500 was converted into common stock of Regentys and $51,625 was repaid in cash. As of July 31, 2019, the remaining principal balance was $353,375 with an unamortized debt discount balance of $3,719. These notes have an accrued interest balance of $24,940 as of July 31, 2019.
Deferred Tax Liability

As a result of the acquisition of Regentys and Olaregen, the purchase price allocation attributed to deferred tax liability was $889,782 and $1,040,173, respectively. The Company has deferred tax assets of over $68 million with a full allowance equally to the to the amount of the deferred tax asset. Although the Company deferred tax assets are in excess of deferred tax liabilities totaling $1,502,122, the Company cannot offset the deferred tax liabilities against its deferred tax assets since the Company acquired less than the 80% of both Regentys and Olaregen preventing the Company to consolidate its income tax returns with Regentys and Olaregen for tax purposes. Therefore, the deferred tax liabilities will be reported separately until such time that the Company determines otherwise. In addition, the Company acquired approximately 51% of each of Regentys and Olaregen, less than the 80% required to permit the Company to consolidate with Regentys and Olaregen for tax purposes. Therefore, the deferred tax liabilities will be reported separately until such time that the Company determines otherwise.

Note 10 – Income Taxes:

The Company has incurred losses since inception, which have generated net operating loss (“NOL”) carryforwards. The NOL carryforwards arise from both United States and Canadian sources. Pre-tax gain or (loss) arising from domestic operations (United States) were ($11,006,793) and $35,948,698 for the years ended July 31, 2019 and 2018, respectively. Pre-tax (losses) arising from foreign operations (Canada) were $(326,461) and $(150,394) for the years ended July 31, 2019 and 2018, respectively.

As of July 31, 2019, the Company has NOL carryforwards in Generex Biotechnology Corporation of approximately $196.2 million, which expire in 2020 through 2038, and $13.7 million will not expire. The non-expiring portion is limited to 80% of the current year taxable income of the respective entity. Generex Pharmaceuticals Inc. has NOL carryforwards of approximately $34.4 million, which expire in 2024 through 2039. Antigen Express, Inc. has NOL carryforwards of approximately $36.2 million which expire in 2020 through 2038. Regentys Corporation has NOL carryforwards of approximately $6.0 million of which $5.0 million will expire 2033 through 2039. Olaregen Therapeutics, Inc. has NOL carryforwards of $1.1 million of which $1.1 million will not expire. Some of these loss carryforwards are subject to limitation due to the acquisition of Regentys, Olaregen and Antigen and may be limited in future years due to certain structural ownership changes which have occurred over the last several years related to the Company’s equity and convertible debenture financing transactions.

For the years ended July 31, 2019 and 2018, the Company’s effective tax rate differs from the federal statutory rate principally due to net operating losses and other temporary differences for which no benefit was recorded.

Deferred income taxes consist of the following:

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th></th>
<th>July 31, 2018</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net operating loss carryforwards</td>
<td>$64,308,679</td>
<td>$59,296,530</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other temporary differences</td>
<td>1,812,190</td>
<td>(102,273)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intangible assets</td>
<td>2,173,419</td>
<td>2,518,572</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Deferred Tax Assets</td>
<td>68,294,288</td>
<td>61,712,829</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuation Allowance</td>
<td>(68,294,288)</td>
<td>(61,712,829)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred Tax Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intangible assets</td>
<td>(—)</td>
<td>(—)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other temporary differences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Deferred Tax Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Deferred Income Taxes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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A reconciliation of the United States Federal Statutory rate to the Company’s effective tax rate for the years ended July 31, 2019 and 2018 is as follows:

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal statutory rate</td>
<td>(21.0)%</td>
<td>(26.5)%</td>
</tr>
<tr>
<td>Increase (decrease) in income taxes resulting from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in fair value of purchase consideration</td>
<td>(40.2)</td>
<td>28.5</td>
</tr>
<tr>
<td>Expiration of net operating loss carryforward</td>
<td>9.9</td>
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<tr>
<td>Other</td>
<td>2.4</td>
<td>0.9</td>
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<tr>
<td>Tax rate change</td>
<td>—</td>
<td>(88.7)</td>
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<tr>
<td>Change in valuation allowance</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Effective tax rate</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Effective tax rate

On December 22, 2017, the Tax Cuts and Jobs Act ("The Act"), was signed into law by President Trump. The Act includes a number of provisions, including the lowering of the U.S. corporate tax rate from 34 percent to 21 percent, effective January 1, 2018 and the establishment of a territorial-style system for taxing foreign-source income of domestic multinational corporations. In December 2017, the SEC issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Act ("SAB118"), which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment. The Company remeasured its deferred tax assets and liabilities as of July 31, 2018, applying the reduced corporate income tax rate and recorded a provisional decrease to the deferred tax assets of $31,876,520, with a corresponding adjustment to the valuation allowance. In the fourth quarter of fiscal year ended July 31, 2019, we completed our analysis to determine the effect of the Tax Act and there were no material adjustments as of July 31, 2019.

As of July 31, 2019, the Company had no tax benefits which have not been fully allowed for, and no adjustment to its financial position, results of operations or cash flows was required. The Company does not expect that unrecognized tax benefits will increase within the next twelve months. The Company records interest and penalties related to tax matters within other expense on the accompanying consolidated statement of operations. These amounts are not material to the consolidated financial statements for the years presented. Generally, tax years 2016 to 2019 remain open to examination by the Internal Revenue Agency or other tax jurisdictions to which the Company is subject. The Company’s Canadian tax returns are subject to examination by federal and provincial taxing authorities in Canada. Generally, tax years 2011 to 2019 remain open to examination by the Canada Revenue Agency or other tax jurisdictions to which the Company is subject.

Note 11 - Net Income Per Share ("EPS"):

Basic net income or loss per share is calculated using the weighted average number of common shares outstanding during the period. Diluted net income per share is calculated by dividing income available to common shareholders by the weighted average number of common shares outstanding for the period and, when dilutive, potential shares from stock options and warrants to purchase common stock, using the treasury stock method. Common stock equivalents are included in the diluted income per share calculation only when option exercise prices are lower than the average market price of the common shares for the period presented.

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted average number of common shares outstanding - Basic</td>
<td>48,360,127</td>
<td>1,068,100</td>
</tr>
<tr>
<td>Potentially dilutive common stock equivalents</td>
<td>5,157,374</td>
<td>1,523,028</td>
</tr>
<tr>
<td>Weighted average number of common and equivalent shares outstanding-Diluted</td>
<td>53,517,501</td>
<td>2,591,129</td>
</tr>
</tbody>
</table>

The following table provides weighted average number of common stock equivalents not included in diluted income per share, because the effects are anti-dilutive, for the years ended July 31, 2019 and 2018, respectively.

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock options</td>
<td>2,831,301</td>
<td>17,850</td>
</tr>
<tr>
<td>Warrants</td>
<td>15,399,681</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>18,230,982</td>
<td>17,850</td>
</tr>
</tbody>
</table>

Note 12 – Goodwill and Intangible Assets

Intangible assets consist of the following at July 31:

<table>
<thead>
<tr>
<th></th>
<th>July 31, 2019</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Process Research &amp; Development</td>
<td>$ 8,761,427</td>
<td>$ 2,911,377</td>
</tr>
<tr>
<td>Non-compete agreements</td>
<td>1,210,000</td>
<td>—</td>
</tr>
<tr>
<td>Developed Software/Technology</td>
<td>131,000</td>
<td>—</td>
</tr>
<tr>
<td>Other Intangibles</td>
<td>51,274</td>
<td>327,654</td>
</tr>
<tr>
<td>Total</td>
<td>10,153,701</td>
<td>3,239,031</td>
</tr>
<tr>
<td>Less accumulated amortization</td>
<td>(319,432)</td>
<td>(27,994)</td>
</tr>
<tr>
<td>Total</td>
<td>$ 9,834,269</td>
<td>$ 3,211,037</td>
</tr>
</tbody>
</table>
Intangible assets are generally amortized on a straight-line basis over the useful lives of the assets. The Company is currently not amortizing the in-process research and development until it becomes commercially viable and placed in service. At the time when the intangible assets are placed in service the Company will determine a useful life.

Amortization expense amounted to $255,835 and 2,571 for the years ended July 31, 2019 and 2018, respectively.

Estimated amortization expense (in thousands) for the next five years and thereafter is as follows:

<table>
<thead>
<tr>
<th>Year Ending July 31</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$434,117</td>
</tr>
<tr>
<td>2021</td>
<td>434,118</td>
</tr>
<tr>
<td>2022</td>
<td>164,895</td>
</tr>
<tr>
<td>2023</td>
<td>30,787</td>
</tr>
<tr>
<td>2024</td>
<td>11,138</td>
</tr>
<tr>
<td>Thereafter</td>
<td>7,898</td>
</tr>
<tr>
<td></td>
<td>$1,082,952</td>
</tr>
</tbody>
</table>

Changes in the value of goodwill:

- Balance as of July 31, 2018: $-
- Acquisition of Veneto (revaluation): 15,051,768
- Acquisition of Regentys (revaluation): 13,834,581
- Acquisition of Olaregen (revaluation): 9,411,224
- Balance as of July 31, 2019: $38,297,573

Note 13 – Acquisitions:

**NuGenerex Diagnostics LLC:**

On January 18, 2017, the Company acquired a 51% interest in NuGenerex Diagnostics LLC (“NGDx”), formerly Hema Diagnostic Systems, LLC, pursuant to the Acquisition Agreement. At closing, the Company acquired 4,950 of NGDx’s 10,000 previously outstanding limited liability company units in exchange for 1,117,011 shares of Generex common stock valued at $253,721, plus 420 shares of Generex common stock issued to NGDx in exchange for 300 new limited liability company units. The Acquisition Agreement also provides the Company with a call option to acquire the remaining 49% of NGDx and a retirement of NGDx shareholder loans in the amount of $13,431,706 (including interest) (the “Call Option”) for the aggregate purchase price of $1. On November 30, 2018, the call option was exercised, and the Company acquired the remaining 49% of NGDx.

Following the closing and the completion of Company’s reverse stock split, the Company was required to issue an additional 4,830,000 shares of common stock and issue a warrant to a former shareholder of NGDx to acquire 15,000,000 additional shares of Generex common stock for $2.50 per share. The issue of this warrant is contingent upon the Company obtaining approval from its shareholders for an increase in its authorized share capital. The total consideration was valued at $1,350,916 on the date of the acquisition. As of July 31, 2019, all warrants relating to this acquisition have been issued which resulted in additional paid in capital of $9,032,435.
Fair Value of the NGDx Assets

The intangible assets acquired includes In–Process Research & Development (“IPR&D”). The Fair Value of the IPR&D intangible asset using an Asset Cost Accumulation methodology as of January 18, 2017 (the “Valuation Date”) was determined to be $2,911,377. Intangible assets are generally amortized on a straight-line basis over the useful lives of the assets. The Company is currently not amortizing the in-process research and development until it becomes commercially viable and placed in service. At the time when the intangible assets are placed in service the Company will determine a useful life.

The net purchase price of NGDx was determined to be as follows:

<table>
<thead>
<tr>
<th>Stock Price at Closing</th>
<th>Shares</th>
<th>Fair Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock at closing</td>
<td>$0.23</td>
<td>1,117,011</td>
</tr>
<tr>
<td>Common Stock after closing</td>
<td>$0.23</td>
<td>420</td>
</tr>
<tr>
<td>Common Stock post reverse stock split</td>
<td>$0.23</td>
<td>4,830,000</td>
</tr>
<tr>
<td><strong>Total purchase price</strong></td>
<td></td>
<td>5,947,431</td>
</tr>
</tbody>
</table>

As of January 18, 2017, the issue of the warrant to acquire 15,000,000 additional common shares of Generex was contingent upon shareholder approval of an increase in the Company’s authorized capital stock. No warrant could be issued by the Company until such time that an increase in authorized capital has been approved. At the time of closing, management was not of the opinion that it is more likely than not that the warrant will be issued, and the Call Option will be exercised, accordingly no values have been attributed to the warrant and Call Option at closing. During 2017, management made a redetermination and estimated that it was more likely than not that the shareholder approval to increase authorized share capital would be obtained and the Call Option would be exercised.

On December 1, 2018, pursuant to the Acquisition Agreement the Company issued the warrant to 15,000,000 additional common shares of Generex to Stephen L. Berkman. The Warrant is exercisable until December 1, 2019 at an exercise price of $2.50 per share. The Warrant contains a provision prohibiting the exercise of the Warrant to the extent that, after exercise, Mr. Berkman would own more than 9.99% of the Company’s common stock. The Warrant was issued pursuant to the January 18, 2017 Acquisition Agreement among the Company, NGDx, Stephen L. Berkman and the other equity owners of NGDx.

Simultaneously, on December 1, 2018, Company exercised the Call Option and acquired the remaining 49% non-controlling interest in NGDx. Accordingly, the fair values of the warrants and call option was updated through the issuance and exercise date and the change in the fair value of the contingent purchase consideration of a loss of $4,397,507 and a gain of $15,147,591 was recorded and included in the condensed interim consolidated statements of operations and comprehensive income for the year ending July 31, 2019. The Company adopted a sequencing policy and determined that the warrants with fixed exercise price were excluded from derivative consideration.

The remaining fair value of the call option and the warrant payable remaining at the time of exercise of the call option and issuance of the warrant was charged against additional paid-in capital as an elimination of non-controlling interest for a loss of $6,951,015.

Fair Value Assumptions Used in Accounting for the Warrant

The Company used the Black-Scholes option-pricing model to calculate the fair value of the warrant. The Black-Scholes option-pricing model requires six basic data inputs: the exercise or strike price, time to expiration, the risk-free interest rate, the current stock price, the estimated volatility of the stock price in the future, and the dividend rate. The key inputs used in the fair value calculations were as follows:

<table>
<thead>
<tr>
<th>December 1, 2018</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise price</td>
<td>2.50</td>
</tr>
<tr>
<td>Time to expiration</td>
<td>3.14 years</td>
</tr>
<tr>
<td>Risk-free interest rate</td>
<td>3.01%</td>
</tr>
<tr>
<td>Estimated volatility</td>
<td>138.61%</td>
</tr>
<tr>
<td>Dividend</td>
<td>Stock price at valuation date</td>
</tr>
</tbody>
</table>

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Fair Value Assumptions Used in Accounting for Call Option

The Company used the Monte Carlo model to calculate the fair value of the call option. The valuations are based on assumptions as of the valuation date with regard to the value of the asset acquired net of impairment, the risk-free interest rate, the estimated volatility of the stock price in the future, the time to expiration and the stock price at the date of valuation.

The following assumptions were used in estimating the value of the Call Option:

<table>
<thead>
<tr>
<th></th>
<th>December 1, 2018</th>
<th>July 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-free interest rate</td>
<td>2.52%</td>
<td>2.44%</td>
</tr>
<tr>
<td>Estimated volatility</td>
<td>164.43%</td>
<td>129.95%</td>
</tr>
<tr>
<td>Remaining Term</td>
<td>1.13 years</td>
<td>1.47 years</td>
</tr>
<tr>
<td>Stock price at valuation date</td>
<td>$0.9043</td>
<td>$0.0976</td>
</tr>
</tbody>
</table>

Grainland and Empire Pharmacies:

On December 28, 2017, the Company through its wholly owned subsidiary NuGenerex, completed the acquisition of the assets and 100% of the membership interests of two pre-operational pharmacies, Empire State Pharmacy Holdings, LLC and Grainland Pharmacy Holdings, LLC, pursuant to the bills of sale for a consideration of $320,000 Promissory Note due and payable in full on June 28, 2018 bearing an annual interest rate of 3%. The note was extended by six months and set to mature with the same terms on December 28, 2018. The note remains active and interest has continued to accrue while new terms of the note are in process of being negotiated.

We finalized our allocation of the purchase price as of December 28, 2018. The final allocation of the purchase price as of January 31, 2019, is as follows:

<table>
<thead>
<tr>
<th>Preliminary Allocation as of December 28, 2017</th>
<th>Allocation Adjustments</th>
<th>Final Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intangible assets (licenses)</td>
<td>$276,380</td>
<td>$276,380</td>
</tr>
<tr>
<td>Property and equipment</td>
<td>19,879</td>
<td>19,879</td>
</tr>
<tr>
<td>Computer software acquired</td>
<td>5,980</td>
<td>5,980</td>
</tr>
<tr>
<td>Leasehold Improvements</td>
<td>17,761</td>
<td>17,761</td>
</tr>
<tr>
<td>Total assets acquired</td>
<td>320,000</td>
<td>320,000</td>
</tr>
<tr>
<td>Consideration:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note Payable</td>
<td>320,000</td>
<td>320,000</td>
</tr>
<tr>
<td>Goodwill</td>
<td>$276,380</td>
<td>$276,380</td>
</tr>
</tbody>
</table>

The entire value of the intangible assets represents the licenses obtained to operate a pharmacy in the respective state of each of the acquired pharmacies. Intangible assets are generally amortized on a straight-line basis over the useful lives of the assets. The Company is currently not amortizing the pharmacy license until the pharmacies become commercially viable and operations begin in the acquired pharmacies. At the time, when the licenses are placed in service, the Company will determine a useful life.

Since acquisition, Grainland Pharmacy Holdings, LLC ceased to operate. Accordingly, the value allocated to its tangible assets, leasehold improvements and licenses acquired for $99,519 was charged to impairment of long-lived assets.

Since acquisition, Empire State Pharmacy Holdings, LLC ceased to operate. Accordingly, the value allocated to its Intangible Assets Arising on Acquisition acquired for $188,068 was charged to impairment of long-lived assets.
Veneto:

On October 3, 2018, the Company entered into an Asset Purchase Agreement (the “Agreement”) with Veneto Holdings, L.L.C. (“Veneto”) to purchase certain assets of Veneto. Effective as at October 3, 2018, NuGenerex Distribution Solutions, LLC assigned the Veneto Asset Purchase Agreement to NuGenerex Distribution Solutions 2, LLC. The sole member of that LLC is NuGenerex Management Services, Inc., a wholly-owned subsidiary of Generex Biotechnology Corporation.

The aggregate purchase price for the Assets is $35,000,000 including the Promissory Note. At the Second Closing, the Company will pay the principal of the Promissory Note plus interest to Veneto, (i) $9,000,000 will be paid by the Company into a trust or other fiduciary account acceptable to Veneto to be used exclusively for satisfaction of certain contingent liabilities of Veneto and subsidiaries of Veneto not being acquired by the Company, (ii) $3,000,000 will be paid by the Company into an escrow account to secure potential obligations of Veneto in respect of the Second Closing date working capital and under the indemnification provisions of the Agreement and (iii) the balance will be payable directly to Veneto in cash.

The Company had also entered into a temporary fee-for-service arrangement with Veneto and one of its subsidiaries for Veneto to provide management, personnel, operational, administrative and other services with respect to the First Closing Assets pending the Second Closing. At the Second Closing, all of Veneto personnel providing these services became employees or consultants of the Company, and, therefore, Veneto no longer provides these services.

At the First Closing, the Promissory Note issued to Veneto in the original principal amount of $15,000,000 with interest at an annual rate of 5.0% and guaranteed by Generex and Joseph Moscato, and secured by a first priority security interest in the Company’s assets other than the First Closing Assets was subsequently cancelled upon the issuance of the new promissory note on the Second Closing in the principal amount of $35,000,000 with an annual of 12.0% and guaranteed by Generex and Joseph Moscato.

On November 1, 2018 the Company consummated the acquisition of the Second Closing Assets, consisting primarily of Veneto’s management services organization business and two additional ancillary services. The aggregate price for the First Closing Assets and the Second Closing Assets was $30,000,000. The Company issued a promissory note in the principal amount of $35,000,000 (the “New Note”) consisting of the $30,000,000 purchase price and a $5,000,000 original issue discount, as the sole consideration payable on the Second Closing Date. In addition, we agreed to assume approximately $3.8 million in outstanding institutional debt of Veneto subsidiaries, but will have the use of Veneto cash which would otherwise have been applied to paying down the debt.

There was $62,500 of accrued interest on the first closing $15,000,000 note and an additional $1,716,129 of accrued interest on the second closing $35,000,000 promissory note for a total of $1,778,629 accrued interest through March 28, 2019 when the Company entered into an Amendment Agreement (the “Amendment”). This Amendment between with Veneto and the equity owners of Veneto (the “Veneto Members”) to restructure the payment of the obligation that in satisfaction of all obligations the Company would cause to be delivered 8,400,000 shares of the Company’s common stock (the “Generex Shares”) to be delivered on or before April 22, 2019; plus an aggregate 5,500,000 shares of the Company’s subsidiary, common stock of Antigen Express, Inc. ("Antigen Shares"). The Company and the Veneto Members further agreed to certain downside protection between $2.50 per share and $1.50 per share subject to terms and conditions contained in the agreement. The Generex Shares were delivered on May 23, 2019, but due to the current and ongoing litigation with the Veneto Members, the Antigen Shares have not been delivered.

As a result of the Amended Agreement entered into on March 28, 2019 ("the Amendment") with Veneto and the equity owners of Veneto (the “Veneto Members”) to restructure the Promissory Note, the Company was evaluated for downside protection associated with the 8,400,000 issued shares in lieu of cash payments against the Promissory Note. Based on the valuation as of the date of agreement on March 28, 2019, an allocation of $6,424,338 was allocated to derivative liability for downside protection. As of July 31, 2019, the downside protection had a market change of $3,085,502 and held a value of $3,338,836.
### Fair Value of the Veneto Acquisition

The following table summarizes the allocation of the preliminary purchase price as of the Veneto acquisition as of the First Closing and the Second Closing:

<table>
<thead>
<tr>
<th></th>
<th>“First Closing” completed on October 3, 2018</th>
<th>“Second Closing” completed on November 1, 2018</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$2,410,150</td>
<td>$</td>
<td>$2,410,150</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>1,935,078</td>
<td>—</td>
<td>1,935,078</td>
</tr>
<tr>
<td>Inventory, net</td>
<td>1,068,856</td>
<td>—</td>
<td>1,068,856</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>95,804</td>
<td>—</td>
<td>95,804</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>652,590</td>
<td>—</td>
<td>652,590</td>
</tr>
<tr>
<td>Other receivables</td>
<td>1,014,316</td>
<td>—</td>
<td>1,014,316</td>
</tr>
<tr>
<td>Notes receivable - LT</td>
<td>1,387,763</td>
<td>—</td>
<td>1,387,763</td>
</tr>
<tr>
<td>Other assets, net</td>
<td>25,745</td>
<td>—</td>
<td>25,745</td>
</tr>
<tr>
<td>Intangible assets, net</td>
<td>35,603</td>
<td>7,110,000</td>
<td>7,145,603</td>
</tr>
<tr>
<td><strong>Total assets acquired</strong></td>
<td><strong>8,625,905</strong></td>
<td><strong>7,110,000</strong></td>
<td><strong>15,735,905</strong></td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>2,509,887</td>
<td>—</td>
<td>2,509,887</td>
</tr>
<tr>
<td>Notes payable</td>
<td>—</td>
<td>3,403,948</td>
<td>3,403,948</td>
</tr>
<tr>
<td><strong>Total liabilities assumed</strong></td>
<td><strong>2,509,887</strong></td>
<td><strong>3,403,948</strong></td>
<td><strong>5,913,835</strong></td>
</tr>
<tr>
<td>Net identifiable assets acquired</td>
<td>6,116,018</td>
<td>3,706,052</td>
<td>9,822,070</td>
</tr>
<tr>
<td>Goodwill</td>
<td>8,883,982</td>
<td>16,293,948</td>
<td>25,177,930</td>
</tr>
<tr>
<td><strong>Total consideration transferred</strong></td>
<td><strong>$15,000,000</strong></td>
<td><strong>$20,000,000</strong></td>
<td><strong>$35,000,000</strong></td>
</tr>
</tbody>
</table>

The following table summarizes the allocation of the revalued purchase price as of the Veneto acquisition as of the First Closing and the Second Closing during the year ending July 31, 2019:

<table>
<thead>
<tr>
<th></th>
<th>“First Closing” completed on October 3, 2018</th>
<th>“Second Closing” completed on November 1, 2018</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$2,410,150</td>
<td>$</td>
<td>$2,410,150</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>1,430,638</td>
<td>—</td>
<td>1,430,638</td>
</tr>
<tr>
<td>Inventory, net</td>
<td>1,068,856</td>
<td>—</td>
<td>1,068,856</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>95,804</td>
<td>—</td>
<td>95,804</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>652,590</td>
<td>—</td>
<td>652,590</td>
</tr>
<tr>
<td>Other receivables</td>
<td>1,014,316</td>
<td>—</td>
<td>1,014,316</td>
</tr>
<tr>
<td>Notes receivable - LT</td>
<td>1,387,763</td>
<td>—</td>
<td>1,387,763</td>
</tr>
<tr>
<td>Other assets, net</td>
<td>25,745</td>
<td>—</td>
<td>25,745</td>
</tr>
<tr>
<td>Intangible assets, net</td>
<td>35,603</td>
<td>811,000</td>
<td>846,603</td>
</tr>
<tr>
<td><strong>Total assets acquired</strong></td>
<td><strong>8,181,465</strong></td>
<td><strong>811,000</strong></td>
<td><strong>8,992,465</strong></td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>2,065,448</td>
<td>—</td>
<td>2,065,448</td>
</tr>
<tr>
<td>Notes payable</td>
<td>—</td>
<td>3,403,948</td>
<td>3,403,948</td>
</tr>
<tr>
<td><strong>Total liabilities assumed</strong></td>
<td><strong>2,065,448</strong></td>
<td><strong>3,403,948</strong></td>
<td><strong>5,469,396</strong></td>
</tr>
<tr>
<td>Net identifiable assets acquired</td>
<td>6,116,017</td>
<td>(2,592,948)</td>
<td>3,523,069</td>
</tr>
<tr>
<td>Goodwill</td>
<td>8,883,982</td>
<td>16,293,948</td>
<td>25,177,930</td>
</tr>
<tr>
<td><strong>Total consideration transferred</strong></td>
<td><strong>$15,000,000</strong></td>
<td><strong>$20,000,000</strong></td>
<td><strong>$35,000,000</strong></td>
</tr>
</tbody>
</table>

In accordance with the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification® (“ASC”) Topic 310, “Receivables”, this agreement is classified as a note receivable and carried at their net realizable value net of allowance of credit losses when management determines that it is probable a loss has been incurred. Notes receivable are charged off against the allowance for credit losses when management determines that the notes receivable are uncollectible and the Company ceases collection efforts. The Company recognizes a portion of the note as interest income in the accompanying consolidated financial statements.

The note receivable for $1,387,763 acquired during the first closing of Veneto on October 3, 2018 was to be automatically converted per the purchase agreement into 6% ownership of a third-party company. Due to the ongoing litigation with Veneto, management has not been able to obtain evidence that this note was converted into 6% ownership of the third-party company. In July 2019, Management reviewed all aspects of this transactions and concluded that it has no reason to believe that this amount will be recovered, as such they deem the note receivable of $1,387,763 to be fully impaired.

As of July 31, 2019, the note receivable balance had increased to $1,443,083 due to $55,300 of additional accrued interest. The Company has elected to record an allowance for credit loss of $1,387,763 as of July 31, 2019 to fully reserve for the principal portion of the note receivable. The remaining $55,300 of accrued interest was written off and netted against interest income in the consolidated financial statements.
The significant intangible assets identified in the purchase price allocation discussed above include developed software and technology, referral base (recurring revenue from the MSO investments and their use of Company owned pharmacies) and non-compete agreements with continued employment of key employees. Tradenames and trademarks were not valued as tradenames and trademarks will not be maintained going forward. To value the developed software and technology, the Company utilized the relief from royalty method, a form of the income approach to value the developed software and technology which assumes a limited technology life and market share adjusted by assumed obsolescence with a terminal value. The referral base was valued using a multi-period excess earnings method, a form of the income approach. The Company utilized the with and without method, a form of the income approach to value non-compete agreements with Generex.

The preliminary amounts assigned to the identifiable intangible assets, the estimated useful lives, and the estimated amortization expense related to these identifiable intangible assets are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Preliminary Fair Value</th>
<th>Average Estimated Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Software/Technology</td>
<td>$131,000</td>
<td>5</td>
</tr>
<tr>
<td>Referral Base</td>
<td>—</td>
<td>15</td>
</tr>
<tr>
<td>Non-compete agreements</td>
<td>$680,000</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>$811,000</td>
<td></td>
</tr>
</tbody>
</table>

Intangible assets are generally amortized on a straight-line basis over the useful lives of the assets.

Goodwill initially represented the excess of the purchase price over the fair market value of net assets acquired. Goodwill for Veneto Acquisition was $8.9 million as of the date of the First Closing and $16.3 million as of the date of the Second Closing. Based on the Amended Agreement (the “Amendment”) entered into on March 28, 2019 referred to above which stipulated that in lieu any cash payments, the Company would deliver shares of the Company’s common stock (the “Generex Shares”). Additionally, in pursuant to ASC 805 and specifically, ASC 805-10-25-14, the Company recognized the change in assets and liabilities as a result of facts and circumstances that existed as of the acquisition date that would have resulted in the recognition of the assets and liabilities with the corresponding decrease of goodwill from $24.2 million to $13.6 million.

During the year ending July 31, 2019, the amounts assigned to the identifiable intangible assets, the estimated useful lives, and the estimated amortization expense related to these identifiable intangible assets were revalued as follows:

<table>
<thead>
<tr>
<th></th>
<th>Preliminary Fair Value</th>
<th>Average Estimated Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Software/Technology</td>
<td>$397,000</td>
<td>5</td>
</tr>
<tr>
<td>Referral Base</td>
<td>$10,000</td>
<td>15</td>
</tr>
<tr>
<td>Non-compete agreements</td>
<td>$1,870,000</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>$2,277,000</td>
<td></td>
</tr>
</tbody>
</table>

Regentys and Olaregen:

On January 7, 2019, the Company closed two separate Acquisition Agreements pursuant to which the Company acquired a 51% interest in both Regentys Corporation (“Regentys”) and Olaregen Therapeutix Inc. (“Olaregen”).

The Company accounted for the acquisitions of both Regentys and Olaregen as business combinations using the purchase method of accounting as prescribed in Accounting Standards Codification 805, Business Combinations (“ASC 805”) and ASC 820 – Fair Value Measurements and Disclosures (“ASC 820”). In accordance with ASC 805 and ASC 820, the Company used its best estimates and assumptions to accurately assign fair value to the tangible assets acquired, identifiable intangible assets and liabilities assumed as of the acquisition dates. Goodwill as of the acquisition date is measured as the excess of purchase consideration over the fair value of tangible and identifiable intangible assets acquired and liabilities assumed.

The fair values assigned to Regentys’ and Olaregen’s tangible and identifiable intangible assets acquired, and liabilities assumed are based on management’s estimates and assumptions. The estimated fair values of these assets acquired, and liabilities assumed are considered preliminary and are based on the information that was available as of the date of the acquisition. The preliminary estimated fair values of assets acquired, and liabilities assumed, and identifiable intangible assets may be subject to change as additional information is received. Thus, the provisional measurements of fair value are subject to change. The Company expects to finalize the valuations as soon as practicable, but not later than one year from the closing date.
Regentys:

On November 28, 2018, Generex and Regentys entered into a binding letter of intent ("LOI") contemplating the Company’s acquisition of 51% of the outstanding capital stock of Regentys for a total consideration of $15,000,000. On January 7, 2019 the Company completed a definitive Stock Purchase Agreement and related documents effecting the transactions contemplated by the LOI.

Pursuant to a Stock Purchase Agreement between the Company and Regentys (the “Purchase Agreement”) the Company acquired 12,048,161 newly issued shares of the Regentys common stock representing 51% percent of the issued and outstanding capital stock of Regentys (“Regentys Shares”).

In addition to $400,000 paid to Regentys upon signing of the LOI, the purchase price for the Regentys Shares will consist of the following cash payments, with the proceeds intended to be used for specific purposes, as noted:

• $3,450,000 to initiate pre-clinical activities on or before January 15, 2019. As of the date hereof, the Company has paid $650,000 and the remaining balance of $2,800,000 is payable on or before November 30, 2019 per extension in amended agreement.
• $2,000,000 to initiate patient recruitment activities on or before May 1, 2019. As of the date hereof, the Company has not yet paid this installment and the full balance of $2,000,000 is payable on or before November 30, 2019 per extension in amended agreement.
• $3,000,000 to initiate a first-in-human pilot study on or before September 1, 2019.
• $5,000,000 to initiate a human pivotal study on or before February 1, 2020.
• $1,150,000 to submit a 510(k) de novo submission to the FDA on or about February 1, 2021.

The Company issued its Promissory Note in the amount of $14,600,000 (the “Note’) representing its obligation to pay the above amounts. The Note is secured by a pledge of the Regentys shares pursuant to a Pledge and Security Agreement. In the event that Generex does not make any of the first three payments listed above, at Regentys’ option either:

• Generex will forfeit all of the Regentys shares issued with no refund of amounts paid; or
• Generex will issue shares of its common stock to Regentys equivalent to 110% of the value of the missing payment, which shares will be registered for resale.

In the event Generex does not make either or both of the fourth and fifth payments, its share ownership of Regentys will be proportionately reduced.

On March 14, 2019, the Company and Regentys amended the Stock Purchase Agreement and Promissory Note to extend the due date of the remaining balance of the first tranche of Guaranteed Payments amounting to $2,800,000 on or before April 1, 2019. On October 31, 2019, the Company and Regentys signed an extension to extend the due date on or before November 30, 2019. The extensions of the due date have no impact on the existing schedule of future payments or any additional terms within the Note. Regentys has not filed any notice of default as of the date of publication, and Generex continues to provide Regentys with business opportunities continuing the relationship.
The following table summarizes the allocation of the preliminary purchase price as of the Regentys acquisition:

<table>
<thead>
<tr>
<th></th>
<th>Preliminary Allocations as of January 7, 2019</th>
<th>Allocation Adjustments</th>
<th>Revised Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$61,857</td>
<td>$0</td>
<td>$61,857</td>
</tr>
<tr>
<td>Other current assets</td>
<td>13,138</td>
<td>20,543</td>
<td>33,591</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>444</td>
<td>444</td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accrued liabilities</td>
<td>(1,181,920)</td>
<td>(307,495)</td>
<td>(1,488,870)</td>
</tr>
<tr>
<td>Notes payable</td>
<td>(639,009)</td>
<td>29,685</td>
<td>(609,324)</td>
</tr>
<tr>
<td>Loans from related parties</td>
<td>(16,506)</td>
<td>(399,999)</td>
<td>(416,505)</td>
</tr>
<tr>
<td>Deferred tax liability</td>
<td>(889,782)</td>
<td>30,320</td>
<td>(859,462)</td>
</tr>
<tr>
<td>In-Process research &amp; development</td>
<td>3,510,680</td>
<td>(119,630)</td>
<td>3,391,050</td>
</tr>
</tbody>
</table>

**Non-Controlling interest, net of proceeds:**

- Note receivable from Generex: 14,345,205 (2,791) 14,342,414
- Redeemable non-controlling interest: (4,073,898) (2,791) (4,073,898)
- Non-controlling interest: (9,870,762) (2,791) (9,870,762)
- Cash paid prior to the time of closing: — 400,000 400,000
- **Total Fair Value of Assets Acquired:** 1,259,447 (751,613) 907,833

**Consideration:**

- Cash paid prior to the time of closing: 400,000 — 400,000
- Note receivable from Generex: 14,345,205 (2,791) 14,342,414
- **Goodwill:** $13,485,758 $748,823 $13,834,581

The redeemable non-controlling interest of $4,073,898, representing the Series Stock A, was determined by deducting the total consideration paid of $14,745,205 from the total purchase value totaling $28,689,865 based on a convergence method in an Option Pricing Model using the Regentys capital structure with 12,048,161 newly issued shares of the Regentys common stock representing 51% percent of the issued and outstanding capital stock of Regentys. See Note 7 – Redeemable Non-Controlling Interest.

**Olaregen:**

On November 27, 2018, Generex and Olaregen entered into a binding letter of intent (“LOI”) contemplating the Company’s acquisition of 51% of the outstanding capital stock of Olaregen for a total consideration of twelve million dollars ($12,000,000).

As of January 7, 2019, the Company completed a definitive Stock Purchase Agreement (“Purchase Agreement”) and related documents effecting the transactions contemplated by the LOI.

The Company acquired 3,282,632 newly issued shares of the Olaregen common stock representing 51% percent of the issued and outstanding capital stock of Olaregen (“Olaregen Shares”).

In addition to $400,000 paid to Olaregen upon signing of the LOI, the purchase price for the Olaregen Shares will consist of the following cash payments:

- $800,000 on or before January 15, 2019. The Company has paid this installment.
- $800,000 on or before January 31, 2019. As of the date this report was filed, the Company has paid $491,500 of this installment and remaining balance of $308,500 is payable on or before November 30, 2019 per extension in amended agreement.
- $3,000,000 on or before April 1, 2019. As of the date this report was filed, the Company has not yet paid this installment and the full balance of $3,000,000 is payable on or before November 31, 2019 per extension in amended agreement.
- $1,000,000 on or before May 31, 2019. As of the date this report was filed, the Company has not yet paid this installment and the full balance of $1,000,000 is payable on or before November 30, 2019 per extension in amended agreement.
- $6,000,000 on or before September 30, 2019.
In addition, during May 2019, Generex pursuant to a Stock Purchase Agreement purchased 592,682 shares of Series A Preferred Stock of Olaregen in exchange for 4,000,000 shares of the Company’s common stock and a $2,000,000 Promissory Note bearing interest at 7% per annum (the “Notes”) originally due and payable on August 1, 2019. As of the date this report was filed, the Company has not yet paid the balance due of this Note.

The Company issued its Promissory Note in the amount of $11,600,000 (the “Note”) representing its obligation to pay the above amounts. The Note is secured by a pledge of the Olaregen shares pursuant to a Pledge and Security Agreement. In the event that Generex fails to pay the installment due on November 30, 2019, Generex will forfeit the shares allocated to that installment (1,600,000 Olaregen shares) and Olaregen will be entitled to “claw back” fifty percent (50%) of any and all shares paid for by the prior payments.

On March 14, 2019, the Company and Olaregen amended the Stock Purchase Agreement and Promissory Note to extend the due date of the remaining balance of the second tranche of Guaranteed Payments amounting to $600,000 on or before April 1, 2019. The Company remitted additional payments of $200,000 on April 30, 2019 and $38,500 on May 17, 2019. On May 22, 2019, the Company and Olaregen amended the agreement to extend the due date of the remaining balance of the second tranche of Guaranteed Payments amounting to $361,500, the full balance of the third tranche amounting to $3,000,000 and the full balance of the fourth tranche amounting to $1,000,000 (total of $4,361,500) on or before June 30, 2019. The extensions of the due date have no impact on the existing schedule of future payments or any additional terms within the Note. Olaregen has not filed any notice of default as of the date of publication, and Generex continues to provide Olaregen with business opportunities continuing the relationship.

In the event Generex does not make any other payments, its share ownership of Olaregen will be proportionately reduced.

Based on the Note, in the event any incremental payment is not paid when due, Olaregen has the option to increase the per share purchase price for all remaining purchased shares to $4.00 per share. Based on $1,400,000 of remitted payments and a Promissory Note balance of $10,400,000 prior to the first extension agreement on March 14, 2019, Olaregen elected the option to proportionally increase the per share purchase price to $4.00 for the remaining 2,899,658 of the total 3,282,632 shares to be acquired. The resulting penalty amounts to an additional $998,633 which has been accrued for the Company to remit to Olaregen pursuant to the acquisition.

Generex has a limited anti-dilution right under the Purchase Agreement, to ensure that Generex will retain 51% ownership in Olaregen for a period of time.

**Fair Value of the Olaregen Acquisition**

The following table summarizes the allocation of the preliminary purchase price as of the Olaregen acquisition:

<table>
<thead>
<tr>
<th>Preliminary Allocations as of January 7, 2019</th>
<th>Allocation Adjustments</th>
<th>Revised Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents $608,419</td>
<td>$ (400,000)</td>
<td>$ 208,419</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>20,488</td>
<td>20,488</td>
</tr>
<tr>
<td>Inventory</td>
<td>408,501</td>
<td>408,501</td>
</tr>
<tr>
<td>Other current assets</td>
<td>37,950</td>
<td>37,950</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>(216,670)</td>
<td>(216,670)</td>
</tr>
<tr>
<td>Accrued liabilities</td>
<td>(216,694)</td>
<td>(216,694)</td>
</tr>
<tr>
<td>Deferred tax liability</td>
<td>(1,040,173)</td>
<td>(642,660)</td>
</tr>
<tr>
<td>In-Process research &amp; development</td>
<td>3,980,000</td>
<td>2,459,000</td>
</tr>
<tr>
<td>Non-compete agreements</td>
<td>790,000</td>
<td>530,000</td>
</tr>
<tr>
<td><strong>Total Fair Value of Assets Acquired</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Controlling interest, net of proceeds:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note receivable from Generex</td>
<td>11,472,663</td>
<td>11,472,663</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td>(11,999,559)</td>
<td>(11,999,559)</td>
</tr>
<tr>
<td>Cash paid prior to the time of closing</td>
<td>—</td>
<td>400,000</td>
</tr>
<tr>
<td><strong>Total Fair Value of Assets Acquired</strong></td>
<td>3,844,925</td>
<td>2,461,440</td>
</tr>
</tbody>
</table>

**Consideration:**

| Cash paid prior to the time of closing       | 400,000                | 400,000           |
| Note receivable from Generex                 | 11,472,663             | 11,472,664        |
| Goodwill                                    | $ 8,027,738            | $ 9,411,224       |

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The components of the acquired intangible assets were as follows:

<table>
<thead>
<tr>
<th></th>
<th>Preliminary Fair Value</th>
<th>Average Estimated Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-process research and development</td>
<td>$3,980,000</td>
<td>—</td>
</tr>
<tr>
<td>Non-compete agreement</td>
<td>790,000</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>$4,770,000</td>
<td></td>
</tr>
</tbody>
</table>

**Unaudited Supplemental Pro Forma Data**

Unaudited pro forma results of operations for the year ended July 31, 2019 and 2018 as though the Company acquired Veneto, Olaregen and Regentys (the “Acquired Companies”) on the first day of each fiscal year are set forth below.

<table>
<thead>
<tr>
<th></th>
<th>Year Ended</th>
<th>July 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Revenues</td>
<td>$11,217,169</td>
<td>$57,137,821</td>
</tr>
<tr>
<td>Cost of revenues</td>
<td>4,143,586</td>
<td>19,236,850</td>
</tr>
<tr>
<td>Gross profit</td>
<td>7,073,583</td>
<td>37,900,971</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>13,338,328</td>
<td>45,146,085</td>
</tr>
<tr>
<td>Operating loss</td>
<td>(6,264,744)</td>
<td>(7,245,114)</td>
</tr>
<tr>
<td>Other income (expense)</td>
<td>1,469,732</td>
<td>523,226</td>
</tr>
<tr>
<td>Net loss</td>
<td>(4,795,012)</td>
<td>(6,721,888)</td>
</tr>
<tr>
<td>Net loss attributable to noncontrolling interests</td>
<td>(1,606,316)</td>
<td>(230,222)</td>
</tr>
<tr>
<td>Net Income (loss) Available to Common Stockholders</td>
<td>(3,188,696)</td>
<td>(6,491,666)</td>
</tr>
<tr>
<td>Comprehensive net loss</td>
<td>(3,188,696)</td>
<td>(6,491,666)</td>
</tr>
<tr>
<td>Basic and diluted earnings per share</td>
<td>$(0.05)</td>
<td>$(0.29)</td>
</tr>
</tbody>
</table>
Note 14 – Derivative Liability

The Company issued debts that consist of the issuance of convertible notes with variable conversion provisions. The conversion terms of the convertible notes are variable based on certain factors, such as the future price of the Company’s common stock. The number of shares of common stock to be issued is based on the future price of the Company’s common stock. The number of shares of common stock issuable upon conversion of the promissory note is indeterminate. Due to the fact that the number of shares of common stock issuable could exceed the Company’s authorized share limit, the equity environment is tainted and all additional convertible debentures and warrants are included in the value of the derivative. Pursuant to ASC 815-15 Embedded Derivatives, the fair values of the variable conversion option and warrants and shares to be issued were recorded as derivative liabilities on the issuance date. The Company’s estimate of fair value used quoted market prices of the underlying financial instrument and valued the warrants using a multinomial lattice models.

The following table presents the activity for derivative liabilities measured at estimated fair value:

<table>
<thead>
<tr>
<th></th>
<th>Derivative Liability - Convertible Notes</th>
<th>Derivative Liability - Warrants</th>
<th>Derivative Liability - Downside Protection</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as of August 1, 2017</td>
<td>$—</td>
<td>$—</td>
<td>$—</td>
<td>$—</td>
</tr>
<tr>
<td>Balance as of July 31, 2018</td>
<td>5,178,241</td>
<td>353,464</td>
<td>6,424,338</td>
<td>11,956,043</td>
</tr>
<tr>
<td>Additions during the year</td>
<td>988,267</td>
<td>(28,214)</td>
<td>(3,085,502)</td>
<td>(2,125,449)</td>
</tr>
<tr>
<td>Change due to exercise / redemptions</td>
<td>(2,010,312)</td>
<td>(2,010,312)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance as of July 31, 2019</td>
<td>$4,156,196</td>
<td>$325,250</td>
<td>$3,338,836</td>
<td>$7,820,282</td>
</tr>
</tbody>
</table>

Note 15 - Warrants:

A summary of the Company’s warrant activities is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Number of Warrants</th>
<th>Weighted Average Exercise Price per Share</th>
<th>Weighted Average Remaining Life (Years)</th>
<th>Aggregate Intrinsic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding – August 1, 2018</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Outstanding - July 31, 2018</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Issued</td>
<td>15,399,681</td>
<td>2.53</td>
<td>1.06</td>
<td>4,500,000</td>
</tr>
<tr>
<td>Outstanding - July 31, 2019</td>
<td>15,399,681</td>
<td>2.53</td>
<td>0.40</td>
<td>4,500,000</td>
</tr>
</tbody>
</table>

For the year ended July 31, 2019, the Company issued 15,399,681 warrants which consisted of 399,681 issued to investors of convertible notes and 15,000,000 issued to a former shareholder of NGDx upon acquisition of the remaining 49% interest of the entity (Note 9). All the warrants issued vested immediately upon issuance. Additionally, 84,000 warrants are to be issued to AEXG in connection with an arbitrator’s award (Note 4).

Note 16 - Stock-Based Compensation:

Stock Option Plans

As of July 31, 2019, the Company had three stockholder-approved stock incentive plans under which shares and options exercisable for shares of common stock have been or may be granted to employees, directors, consultants and advisors. A total of 2,835,000 shares of common stock are reserved for issuance under the 2006 Stock Plan as amended (the 2006 Plan) and 240,000,000 shares of common stock reserved for issuance under the 2017 Stock Option Plan (the 2017 Plan) and 1,200,000 shares of common stock reserved for issuance under the 2019 Stock Option Plan (the 2019 Plan). At July 31, 2019, there were 2,823,450, 232,022,875, 1,200,000 shares of common stock reserved for future awards under the 2006 Plan, 2017 Plan and 2019 Plan, respectively. The Company issues new shares of common stock from the shares reserved under the respective Plans upon conversion or exercise of options and issuance of restricted shares.
The 2006, 2017 and 2019 Plans (the Plans) are administered by the Board of Directors (the Board). The Board is authorized to select from among eligible employees, directors, advisors and consultants those individuals to whom options are to be granted and to determine the number of shares to be subject to, and the terms and conditions of the options. The Board is also authorized to prescribe, amend and rescind terms relating to options granted under the Plans. Generally, the interpretation and construction of any provision of the Plans or any options granted hereunder is within the discretion of the Board.

The Plans provide that options may or may not be Incentive Stock Options (ISOs) within the meaning of Section 422 of the Internal Revenue Code. Only employees of the Company are eligible to receive ISOs, while employees and non-employee directors, advisors and consultants are eligible to receive options which are not ISOs, i.e. “Non-Qualified Options.” The options granted by the Board in connection with its adoption of the Plans were Non-Qualified Options. In addition, the 2006 Plan also provides for restricted stock grants.

The fair value of each option granted is estimated on the grant date using the Black-Scholes option pricing model or the value of the services provided, whichever is more readily determinable. The Black-Scholes option pricing model takes into account, as of the grant date, the exercise price and expected life of the option, the current price of the underlying stock and its expected volatility, expected dividends on the stock and the risk-free interest rate for the term of the option.

The following is a summary of the common stock options granted, forfeited or expired and exercised under the Plan:

<table>
<thead>
<tr>
<th>Options</th>
<th>Weighted Average Exercise Price per Share</th>
<th>Weighted Average Remaining Life (Years)</th>
<th>Aggregate Intrinsic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding – August 1, 2018</td>
<td>379,998</td>
<td>$1.48</td>
<td>1.11</td>
</tr>
<tr>
<td>Granted</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Forfeited or expired</td>
<td>(147,777)</td>
<td>(0.05)</td>
<td>—</td>
</tr>
<tr>
<td>Exercised</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Outstanding - July 31, 2018</td>
<td>232,221</td>
<td>$1.00</td>
<td>0.25</td>
</tr>
<tr>
<td>Granted</td>
<td>9,976,125</td>
<td>0.71</td>
<td>7.59</td>
</tr>
<tr>
<td>Forfeited or expired</td>
<td>(2,219,671)</td>
<td>(0.43)</td>
<td>8.18</td>
</tr>
<tr>
<td>Exercised</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Outstanding - July 31, 2019</td>
<td>7,988,675</td>
<td>$0.84</td>
<td>7.21</td>
</tr>
</tbody>
</table>

The intrinsic value is calculated as the difference between the market value and the exercise price of the shares on July 31, 2019. The market values as of July 31, 2019 was $2.80 based on the closing bid price for July 31, 2019.

There were 3,369,842 vested common stock options under the Plan as of July 31, 2019. The compensation expense was $3,000,974 for the year ended July 31, 2019. There was additional compensation expense pertaining to the Regentys acquisition of $11,472 for the year ended July 31, 2019 for total compensation expense of $3,012,446. The Company had $3,263,569 of unrecognized compensation costs related to non-vested share-based compensation arrangements granted under the Plan at July 31, 2019 to be recognized over an average of 2.49 years.

The Company estimated the fair value of each stock option on the grant date using a Black-Scholes option-pricing model. Black-Scholes option-pricing models requires the Company to make predictive assumptions regarding future stock price volatility, recipient exercise behavior, and dividend yield. The Company estimated the future stock price volatility using the historical volatility over the expected term of the option. The following assumptions were used in the Black-Scholes option-pricing model:

<table>
<thead>
<tr>
<th>Year Ended July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise price</td>
</tr>
<tr>
<td>Expected term</td>
</tr>
<tr>
<td>Risk-free interest rate</td>
</tr>
<tr>
<td>Estimated volatility</td>
</tr>
<tr>
<td>Expected dividend</td>
</tr>
<tr>
<td>Stock price at valuation date</td>
</tr>
</tbody>
</table>

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Note 17 - Subsequent Events:

The Company has evaluated subsequent events occurring after the balance sheet date through the date the audited annual consolidated financial statements were issued in the unaudited condensed interim consolidated financial statements were issued.

On August 1, 2019 Generex finalized the acquisition of Pantheon Medical – Foot & Ankle, LLC (“Pantheon) through a stock purchase agreement and issued 560,000 shares of common stock.

On August 1, 2019 Generex finalized the acquisition of MediSource Partners, LLC through a stock purchase agreement and issued 400,000 shares of common stock.

On August 8, 2019, the Company converted $649,851 of principal into 384,000 shares of common stock.

On August 12, 2019, the Company converted $45,000 of principal and $2,500 of interest into 30,666 shares of common stock.

On August 12, 2019, the Company retained a consultant to provide financial advisory services in connection with and support of the various financing options and other services for the Company to raise up to Seven Million Dollars ($7,000,000) in debt capital for the Company payable upon funding equal to five (5%) of the principal amount funded by investors introduced by the Consultant.

On August 13, 2019, the Company entered into a Public Secured Financing Facility Agreement with an investor pursuant to which the Company will receive a $5,000,000 financing facility bearing 13.50% interest per annum. The Company may receive subsequent financing in addition to the initial amount of $5,000,000 but shall not exceed a total of $7,000,000. The financing facility matures on August 13, 2021.

On August 14, 2019, the Company entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold a convertible note bearing interest at 10% per annum (the “Note”) in the principal amount of $1,100,000. Pursuant to the Securities Purchase Agreements, the Company also sold to the Investor warrants to purchase up to an aggregate 62,857 shares of common stock with the fair value of the warrants as of the date of issuance in excess of the Notes resulting in full discount of the Notes.

On August 15, 2019, the Company entered an agreement to pay an investor $900,000 for the prepayment of $666,667 owed under the note. Pursuant to the agreement, the Company converted $350,000 owed under the note into 230,351 shares of the Company’s common stock based upon a conversion price of $1.51942 per share.

On August 16, 2019, the Company entered into a Share Exchange Agreement to purchase an additional 900,000 shares in Olaregen Therapeutix Inc. from Olaregen Therapeutix LLC representing increasing Generex’s ownership from approximately 62% to 76%.

On August 19, 2019, the Company converted $60,000 of principal and $3,450 of interest into 46,110 shares of common stock.

On August 12, 2019, the Company repaid in cash $100,149 in principal and $37,411 of interest.

On August 21, 2019, the Company converted $100,000 of principal and $5,699 of interest into 94,373 shares of common stock.
On August 29, 2019, the Company entered into a Securities Purchase Agreement with an investor pursuant to which the Company agreed to sell and sold a convertible note bearing interest at 9% per annum (the “Note”) in the principal amount of $250,000.

On September 1, 2019, the Company retained a consultant to provide consulting services directly or through affiliated entities, certain management, administrative, marketing and/or clinical services to various ancillary healthcare for providers for a fee of $2,000,000; $250,000 payable in shares of common stock; and $1,750,000 payable in 18 equal installments of $97,222.22 per month payable in cash as is available from the operations of newly acquired subsidiaries Pantheon and MediSource, or shares of common stock issued monthly. On September 2, 2019 Generex signed a Memorandum of Understanding with Paradise Valley Family Medicine to form a partnership under NuGenerex Health, LLC for the provision of ancillary health services.

On September 2, 2019 Generex signed a Memorandum of Understanding with Paradise Valley Family Medicine to form a partnership under NuGenerex Health, LLC for the provision of ancillary health services.

On September 3, 2019, we declared a stock dividend on our outstanding Common Stock for stockholders of record date August 30, 2019 (the “Record Date”). As a result, all stockholders on the Record Date who hold their shares through the pay date of November 29, 2019 will receive one new share of Common Stock for each share of Common Stock owned by them as of that date.

On September 2, 2019 Generex signed a Memorandum of Understanding with Arizona Endocrinology Center to form a partnership under NuGenerex Health, LLC for the provision of ancillary health services.

On September 2, 2019 Generex signed a Memorandum of Understanding with Arizona Endocrinology Center to form a partnership under NuGenerex Health, LLC for the provision of ancillary health services.

On September 6, 2019, Generex signed a binding Letter of Intent with ALTuCELL, Inc (“ALTuCELL”), a clinical-stage development company with a broad intellectual property portfolio focused on cell encapsulation technology for the treatment of diabetes, autoimmune diseases, and inflammatory conditions to purchase 51% of ALTuCELL’s equity in exchange for $2,000,000 in cash, $8,000,000 in the Company’s common stock price at $2.50/share, and commitment to fund $5,000,000 towards ALTuCELL’s development costs pursuant to a mutually agreed upon clinical development plan based upon a valuation of ALTuCELL equal to $29,500,000. On September 20, 2019, Generex paid ALTuCELL a preliminary payment of $50,000 to bind the agreement.

On September 10, 2019, Generex and its subsidiaries, NuGenerex Distribution Solutions, LLC and NuGenerex Distributions Solutions 2, LLC (jointly “NDS”) filed an arbitration action against Veneto Holdings, LLC and certain affiliated entities holding shares of our common stock issued in connection with our acquisition of Veneto’s assets, alleging, among other things, that Veneto never transferred the ownership rights in at least one pharmacy to NDS. This pharmacy was a necessary element in the operation of other assets transferred by Veneto. The ownership rights in this pharmacy was a substantial portion of the consideration for shares issued to Veneto and its affiliates, and, as a result, Generex contends the shares issued to Veneto and its affiliates were never fully paid for. The arbitration is pending before the American Arbitration Association in Delaware.

On September 10, 2019, the Company converted $100,000 of principal and $6,361 of interest into 75,737 shares of common stock.

On September 12, 2019, 20,375,900 shares of common stock held in trust for the benefit of the Company were cancelled by the Company.

On September 13, 2019, the Company converted 592,683 Preferred Shares of Olaregen Therapeutics, Inc. Series A Preferred Stock into Common Stock.

On September 17, 2019, the Company converted $130,000 of principal and $8,522 of interest into 95,130 shares of common stock.

On September 18, 2019, the Company converted $150,000 of principal and $9,699 of interest into 112,941 shares of common stock.
On October 1, 2019, the Company retained a consultant to provide consulting services in support of the Company’s mission to raise capital, identify potential mergers, as well as other strategic advice to increase the value of the Company for a monthly fee of $5,000 for each calendar month commencing October 2019 and continuing through the termination date of September 30, 2024. The consultant received options to purchase 1,000,000 shares of common stock, vesting in equal increments of 200,000 shares on October 1st of each year commencing on October 1, 2019 at an exercise price of $2.09 per share. The consultant is to be paid a 2.0% transaction fee payable on all transactions consummated during the term. The transaction fee is based on the amount of all proceeds and other consideration paid or received, to be paid or received, or retained by the Company.

On October 10, 2019 Generex amended the acquisition agreement for the purchase of Pantheon effective on August 1, 2019 to provide a performance incentive up to $500,000 of GNBT Stock for exceeding annual EBIDTA targets of Pantheon of $1,000,000, 1,500,000 and $2,000,000 for the years ending July 31, 2020, 2021 and 2022, respectively, plus an additional $50,000 of GENBT Stock for each additional $100,000 of EBDITA achieved by Pantheon.
Item 13. Other Expenses of Distribution.

We will pay all expenses in connection with the registration and sale of the common stock by the selling shareholders. The estimated expenses of issuance and distribution are set forth below.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC filing fee</td>
<td>$1,933</td>
</tr>
<tr>
<td>Legal expenses</td>
<td>$150,000*</td>
</tr>
<tr>
<td>Accounting expenses</td>
<td>$50,000*</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$10,000*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$211,933</strong>*</td>
</tr>
</tbody>
</table>

* Estimate


Subsection (a) of Section 145 of the General Corporation Law of Delaware, or the DGCL, empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

Subsection (b) of Section 145 of the DGCL empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses (including attorneys’ fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification may be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 of the DGCL further provides that to the extent a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) or in the defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys’ fees) actually and reasonably incurred by him in connection therewith; that indemnification or advancement of expenses provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and empowers the corporation to purchase and maintain insurance on behalf of a director, officer, employee or agent of the corporation against any liability asserted against him or incurred by him in any such capacity or arising out of his status as such whether or not the corporation would have the power to indemnify him against such liabilities under Section 145.
Reference is also made to Section 102(b)(7) of the DGCL, which enables a corporation in its certificate of incorporation to eliminate or limit the personal liability of a director for monetary damages for violations of a director’s fiduciary duty, except for liability (i) for any breach of the director’s duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL (providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which the director derived an improper personal benefit. Our amended and restated certificate of incorporation provides that a director of the Company will not be personally liable for monetary damages for breach of fiduciary duty as a director, except:

- for any breach of duty of loyalty to us or to our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- for unlawful payment of dividends or unlawful stock repurchases or redemptions;
- for any transaction from which the director derived an improper personal benefit.

In addition, our amended and restated bylaws provide that:

- we are required to indemnify our directors and executive officers to the fullest extent not prohibited by Delaware law or any other applicable law, subject to limited exceptions;
- we may indemnify our other officers, employees and other agents as set forth in Delaware law or any other applicable law;
- we are required to advance expenses to our directors and executive officers as incurred in connection with legal proceedings against them for which they may be indemnified; and
- the rights conferred in the amended and restated bylaws are not exclusive.

**Item 15. Recent Sales of Unregistered Securities.**

On March 6, 2017, we entered into a securities purchase agreement with an investor, pursuant to which we agreed to sell our convertible note due March 6, 2018 in the principal amount of $674,854.96. The purchase price of the note was $562,379.13 comprised of $500,000 in cash, the cancellation of a $50,000 demand note we had issued to the investor in May 2016, $3,879.13 in accrued interest on the prior note and $8,500 in legal fees for the investor’s counsel, which we were obligated to pay pursuant to the securities purchase agreement. The remaining $112,475.83 of principal amount represents original issue discount.

On March 28, 2017, we entered into a securities purchase agreement with an investor, pursuant to which we agreed to sell an aggregate of 109,000 shares of our newly designated Series H Preferred Stock and 6,000 shares of our newly designated Series I Preferred Stock.

On April 26, 2017, our Board of Directors determined it appropriate to retire the Company’s indebtedness to Messrs. Joseph Moscato and Lawrence Salvo by applying a 20% original issue discount to the aggregate amounts thereof and issuing shares of our Series I Preferred Stock in full and final satisfaction thereof. The 20% original issue discount means that the actual funds advanced by Messrs. Moscato and Salvo were 80% of the debt recognized and converted into Series I Preferred Stock. Following the Board’s decision, we issued the following shares:

- 391 shares of Series I Preferred Stock to Mr. Moscato to retire indebtedness of $390,983.52; and
- 399 shares of Series I Preferred Stock to Mr. Salvo to retire indebtedness of $399,363.22.
On November 30, 2018, Messrs. Joseph Moscato and Lawrence Salvo converted all shares of our Series I Preferred Stock owned by them. Mr. Moscato received 3,276,000 shares of common stock upon conversion. Mr. Salvo received 3,354,645 shares of common stock upon conversion.

On December 1, 2018, after payment of the dividend, B-H Sanford, LLC, converted all shares of the Company’s Series I Preferred Stock owned by it into 25,200,000 shares of common stock.

On December 1, 2018, we issued to Stephen L. Berkman, previous owner of NGDx and debt holder, a warrant exercisable for 15,000,000 shares of common stock. The warrant were exercisable until December 1, 2019 at an exercise price of $2.50 per share and expired prior to being exercised. The warrant was issued pursuant to the January 18, 2017 acquisition agreement among the Company, NGDx, Stephen L. Berkman and the other equity owners of NGDx.

Also on December 1, 2018, we and Mr. Berkman entered into an agreement, assignment and release, pursuant to which Mr. Berkman transferred the remaining NGDx equity interests to us, waiving and releasing any conditions to such transfer. As of October 31, 2018, the Company was indebted to Mr. Berkman for advances made in the amount of $624,403.64, and NGDx was indebted to Mr. Berkman for loans made to NGDx prior to January 18, 2017, in the amount of $13,431,705.66. In addition to the assignment of the NGDx interests, Mr. Berkman released these debts in exchange for shares of our common stock valued at the aggregate of such amount using the closing price for the common stock on November 30, 2018. The closing price was $18.99, resulting in 32,881 shares issuable to Mr. Berkman.

On January 24, 2019, we entered into securities purchase agreements with three investors, pursuant to which we sold convertible notes bearing interest at 10% per year in the aggregate principal amount of $2,110,000. The purchase price of the notes was $2,010,000 and the remaining $100,000 of principal amount represents original issue discount.

Pursuant to the securities purchase agreements, we also sold warrants to purchase up to an aggregate 120,570 shares of common stock to the investors. Subject to certain ownership limitations, the notes will be convertible at the option of the holder at any time into shares common stock at an effective conversion price equal to the lesser of:

- A price determined as of the date of closing; and

- 70% of the lowest volume weighted average trading price of the common stock on the ten days prior to conversion.

On February 4, 2019, we closed under a securities purchase agreement with an investor pursuant to which we agreed to sell and sold a convertible note bearing interest at 10% per year in the principal amount of $750,000. The purchase price of the note was $712,500 and the remaining $37,500 of principal amount represents original issue discount.

Pursuant to the securities purchase agreement, we also sold to the investor warrants to purchase up to an aggregate 45,000 shares of common stock. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of our common stock at an effective conversion price equal to the lesser of:

- Average price for the ten days prior to closing; and

- 70% of the lowest volume weighted average trading price of the common stock on the ten days prior to conversion.

On February 15, 2019, we entered into, and on February 22, 2019, closed a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 10% per year in the principal amount of $750,000. The purchase price of the note was $712,500 and the remaining $37,500 of principal amount represents original issue discount. Pursuant to the securities purchase agreement, we also sold warrants to purchase up to an aggregate 57,143 shares of common stock to the investor. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of common stock at an effective conversion price equal to the lesser of:

- $2.50 per share; and

- 70% of the lowest volume weighted average trading price of the common stock on the ten days prior to the date a notice of conversion is received.
As discussed under the section of “Corporate History”, we consummated the acquisition of certain assets of Veneto in 2018 in two closings. The aggregate price for these assets was $30,000,000. We issued a note in the principal amount of $35,000,000. In addition, we agreed to assume approximately $3.4 million in outstanding institutional debt of Veneto subsidiaries, but will have use of Veneto cash which would otherwise have been applied to paying down the debt. On March 28, 2019, we entered into an amendment agreement with Veneto and the equity owners of Veneto to restructure the payment of the obligation that in satisfaction of all obligations we would cause to be delivered 8,400,000 shares of our common stock on or before April 22, 2019; plus an aggregate 5,500,000 shares of the Company’s subsidiary, common stock of NGIO, Inc. We and the Veneto Members further agreed to certain downside protection between $2.50 per share and $1.50 per share subject to terms and conditions contained in the agreement.

On April 8, 2019, we closed under a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 10% per year in the principal amount of $530,000. The purchase price of the note was $505,500 and the remaining $25,000 of principal amount represents original issue discount. Pursuant to the securities purchase agreement, we also sold to the investor warrants to purchase up to an aggregate 92,842 shares of common stock. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of our common stock at a conversion price equal to the lesser of

- A price determined as of the date of closing; and
- 70% of the lowest volume weighted average trading price of the common stock on the ten days prior to (and including) the date a notice of conversion is received.

On April 23, 2019, we closed under a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 10% per year in the principal amount of $530,000. The purchase price of the note was $505,500 and the remaining $25,000 of principal amount represents original issue discount. Pursuant to the securities purchase agreement, we also sold to the investor warrants to purchase up to an aggregate 84,126 shares of common stock. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of our common stock at an effective conversion price equal to the lesser of

- A price determined as of the date of closing; and
- 70% of the lowest volume weighted average trading price of the common stock on the ten days prior to (and including) the date a notice of conversion is received.

On July 8, 2019, we issued 205,897 shares of common stock upon conversion of $280,000 of principal and $12,581 of interest of a note.

On July 16, 2019, we issued 1,121,343 shares of common stock for the settlement of $3,150,972 of accounts payable and other accrued obligations.

On July 19, 2019, we issued 565,000 shares of common stock upon conversion of $796,628 of principal and $57,127.97 of interest of a note, plus $750 of conversion fees.

On August 1, 2019, we closed an asset purchase agreement for the acquisition of Pantheon Medical – Foot & Ankle, LLC through a stock purchase agreement in exchange for 400,000 shares of common stock, plus contingent consideration up to $500,000 based upon a future performance and a consulting agreement for $2,000,000; $250,000 payable in shares of common stock; and $1,750,000 payable in 18 equal installments of $97,222.22 per month payable in cash as is available from the operations of newly acquired subsidiaries Pantheon and MediSource, or shares of common stock issued monthly that included $250,000 worth of common stock.
On August 1, 2019, we closed an asset purchase agreement for the acquisition of MediSource Partners, LLC through a stock purchase agreement in exchange for 560,000 shares of common stock, plus contingent consideration up to $700,000 on the first anniversary of the acquisition based upon a future performance and a consulting agreement with the CEO that included $250,000 worth of common stock, plus an 18-month contract for $97,222 payable in cash or common stock.

On August 5, 2019, we issued 25,178 shares of common stock upon conversion of $45,000 of principal and $2,338 of interest of a note.

On August 7, 2019, we issued 241,615 shares of common stock upon conversion of $253,371 of principal and $1,666 of interest, $109,632 of default penalties of a note, and $750 of conversion fees.

On August 8, 2019, we entered into securities purchase agreement, pursuant to which we sold convertible notes bearing interest at 10% per year in the aggregate principal amount of $1,150,000. The purchase price of the notes was $1,000,000 and the remaining $150,000 of principal amount represents original issue discount.

On August 8, 2019, we issued 384,000 shares of common stock upon conversion of $649,851 of principal of a note.

On August 12, 2019, we issued 30,666 shares of common stock upon conversion of $45,000 of principal and $2,500 of interest of a note.

On August 14, 2019, we entered into a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 10% per year in the principal amount of $1,100,000. Pursuant to the securities purchase agreement, we also sold to the investor warrants to purchase up to an aggregate 62,857 shares of common stock with the fair value of the warrants as of the date of issuance in excess of the note resulting in full discount of the note.

On August 15, 2019, we entered an agreement to pay an investor $900,000 for the prepayment of $666,667 owed under a note. Pursuant to the agreement, we issued 230,351 shares of common stock upon conversion of $350,000 owed under the note based upon a conversion price of $1.51942 per share.

On August 16, 2019, we issued 1,905,912 shares of common stock pursuant to a share exchange agreement to purchase an additional 900,000 shares in Olaregen Therapeutix Inc. from Olaregen Therapeutix LLC representing increasing Generex’s ownership from approximately 62% to 76%.

On August 19, 2019, we issued 46,110 shares of common stock upon conversion of $60,000 of principal and $3,450 of interest of a note.

On August 21, 2019, we issued 94,373 shares of common stock upon conversion of $100,000 of principal and $5,699 of interest of a note.

On August 29, 2019, we entered into a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 9% per year in the principal amount of $250,000.

On September 1, 2019, we retained a consultant to provide consulting services for a flat fee of $2,000,000 payable in cash or shares of common stock at our election.

On September 9, 2019, we issued 30,000 shares of common stock for the settlement of $53,106.50 of accounts payable for past services and other accrued obligations.

On September 10, 2019, we issued 75,737 shares of common stock upon conversion of convertible debt of $100,000 in principal and $6,361 in accrued interest.

On September 12, 2019, 20,375,000 shares of common stock held in trust for the benefit of the Company were cancelled by the Company.
On September 17, 2019, we issued 95,130 shares of common stock upon conversion of convertible debt of $130,000 in principal and $8,522 in accrued interest.

On September 18, 2019, we issued 112,941 shares of common stock upon conversion of convertible debt of $150,000 in principal and $9,699 in accrued interest.

On November 12, 2019, the Company converted $80,000 of principal and $4,778 of interest into 115,344 shares of common stock.

On November 14, 2019, the Company converted $50,000 of principal and $2,712 of interest into 80,110 shares of common stock.

On November 18, 2019, the Company entered into a Securities Purchase Agreement with three investors pursuant to which the Company agreed to sell and sold a convertible note bearing interest at 10% per annum in the principal amount of $275,000 and issued 45,000 shares of common stock in the aggregate for the commitment. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of our common stock at a conversion price equal to the lesser of

• A price determined as of the date of closing; and

• 80% of the lowest volume weighted average trading price of the common stock on the twenty days prior to (and including) the date a notice of conversion is received.

On November 21, 2019, the Company converted $80,000 of principal and $4,493 of interest into 134,865 shares of common stock.

On November 21, 2019, the Company converted $100,000 of principal and $6,219 of interest into 169,543 shares of common stock.

On November 27, 2019, we converted $100,000 of principal and $6,384 of interest into 202,635 shares of common stock.

On November 27, 2019, we converted $125,000 of principal and $7,226 of interest into 251,859 shares of common stock.

On November 29, 2019, we converted $50,000 of principal into 79,214 shares of common stock.

On December 5, 2019, we converted $70,000 of principal and $4,621 of interest into 180,682 shares of common stock.

On December 5, 2019, we converted $75,000 of principal and $4,500 of interest into 192,494 shares of common stock.

On December 6, 2019, the Company entered into an Equity Purchase Agreement with an investor to purchase up to $40,000,000 of the Company’s stock at 92% of the market price for the period of five (5) consecutive trading days immediately subject to a put notice on such date on which the purchase price is calculated in accordance with the terms and conditions of the agreement and we issued 1,228,501 shares of common stock upon signing.

On December 9, 2019, we closed under a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 12% per year in the principal amount of $2,200,000. The purchase price of the note was $2,000,000 and the remaining $200,000 of principal amount represents original issue discount and issued 100,000 shares of common stock for the commitment. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of our common stock at a conversion price equal to 95% of the Market Price, the mathematical average of the 5 lowest individual daily volume weighted average prices of the common stock less $0.05/share.
On December 13, 2019, we issued 23,293 shares of common stock pursuant to a satisfaction and release agreement.

On December 12, 2019, we converted $70,000 of principal and $4,756 of interest into 181,007 shares of common stock.

On December 12, 2019, we converted $50,000 of principal and $3,096 of interest into 128,561 shares of common stock.

On December 17, 2019, we converted $75,000 of principal and $4,47 of interest into 193,091 shares of common stock.

On December 18, 2019, we converted $50,000 of principal and $4,556 of interest into 128,038 shares of common stock.

On December 30, 2019, we converted $75,000 of principal and $5,014 of interest into 228,611 shares of common stock.

On December 31, 2019, we entered into a business development service agreement and issued 400,000 shares of common stock for services.

On January 6, 2020, we converted $50,000 of principal and $4,819 of interest into 145,862 shares of common stock.

On January 14, 2020, we closed under a securities purchase agreement with an investor pursuant to which we sold a convertible note bearing interest at 4% per year in the principal amount of $275,000. The purchase price of the note was $262,500 and the remaining $12,500 of principal amount represents original issue discount and issued 75,000 shares of common stock for the commitment. Subject to certain ownership limitations, the note will be convertible at the option of the holder at any time into shares of our common stock at a conversion price equal to the lesser of

• A price determined as of the date of closing; and

• 80% of the lowest volume weighted average trading price of the common stock on the twenty days prior to (and including) the date a notice of conversion is received.

On February 3, 2020, we converted $74,572 of principal into 181,000 shares of common stock.

On February 9, 2020, we converted $100,464 of principal into 260,000 shares of common stock.

The securities discussed under this Item 15 were issued in reliance on the exemption from registration provided in Section 4(a)(2) of the Securities Act for transactions not involving a public offering.
<table>
<thead>
<tr>
<th>Exhibit Number</th>
<th>Description of Exhibit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Agreement and Plan of Merger among Generex Biotechnology Corporation, NGIO, Inc. and AGEXP Acquisition Inc. (incorporated by reference to Exhibit 2.1 to Form 8-K filed on August 15, 2003)</td>
</tr>
<tr>
<td>3.1</td>
<td>Restated Certificate of Incorporation (incorporated by reference to Exhibit 3 to 10-K filed October 9, 2015)</td>
</tr>
<tr>
<td>3.2</td>
<td>Certificate of Amendment to Restated Certificate of Incorporation of Generex Biotechnology Corporation (incorporated by reference to Exhibit 3(i)(f) to Registration Statement on Form S-1 (File No. 333-187656) filed on April 1, 2013)</td>
</tr>
<tr>
<td>3.3</td>
<td>Amended and Restated By-Laws (incorporated by reference to Exhibit 3.2(ii) to Generex Biotechnology Corporation’s Report on Form 8-K filed December 5, 2007)</td>
</tr>
<tr>
<td>3.4</td>
<td>Certificate of Designation of Series A Preferred Stock (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed July 11, 2011)</td>
</tr>
<tr>
<td>3.5</td>
<td>Certificate of Designation of Series B Preferred Stock (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed February 1, 2012)</td>
</tr>
<tr>
<td>3.6</td>
<td>Certificate of Designation of Series C Preferred Stock (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed August 8, 2012)</td>
</tr>
<tr>
<td>3.7</td>
<td>Certificate of Designation of Series D Preferred Stock (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed December 11, 2012)</td>
</tr>
<tr>
<td>3.8</td>
<td>Certificate of Designation of Series E Preferred Stock (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed December 11, 2012)</td>
</tr>
<tr>
<td>3.9</td>
<td>Certificate of Designation of Series F Preferred Stock (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed March 28, 2014)</td>
</tr>
<tr>
<td>5.1</td>
<td>Opinion of Sichenzia Ross Ference LLP (to be filed by amendment)</td>
</tr>
<tr>
<td>10.1</td>
<td>Amendment to Asset Purchase Agreement by and between Veneto Holdings, L.L.C. and NuGenerex Distribution Solutions 2, LLC effective November 1, 2018 (incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed on November 5, 2018)</td>
</tr>
<tr>
<td>10.2</td>
<td>Clinical Trial Agreement between NSABP Foundation, Inc. and NGIO, Inc. (incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed on November 26, 2018)</td>
</tr>
<tr>
<td>10.3</td>
<td>Form of Stock Control Agreement among the Company, Lawrence Salvo, Stephen L. Berkman, Joseph Moscato and B-H Sanford, LLC. (incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed on December 3, 2018)</td>
</tr>
<tr>
<td>10.4</td>
<td>Form of Agreement, Assignment and Release among the Company, Hemaq Diagnostic Systems, LLC and Stephen L. Berkman. (incorporated by reference to Exhibit 10.1 to Generex Biotechnology Corporation’s Current Report on Form 8-K filed on December 3, 2018)</td>
</tr>
<tr>
<td>10.5</td>
<td>Form of Stock Pledge Agreement between Joseph Moscato and Istvan Elek dated November 25, 2018. (incorporated by reference to Exhibit 10.1 to Generex Biotechnology Corporation’s Current Report on Form 8-K filed on December 3, 2018)</td>
</tr>
<tr>
<td>10.7</td>
<td>Promissory Note issued by Generex Biotechnology Corporation to Regentys Corporation. (incorporated by reference to Exhibit 10.2 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.8</td>
<td>Pledge and Security Agreement between Generex Biotechnology Corporation and Regentys Corporation. (incorporated by reference to Exhibit 10.3 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.9</td>
<td>Pledge and Security Agreement between Generex Biotechnology Corporation and Regentys Corporation. (incorporated by reference to Exhibit 10.4 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.10</td>
<td>Management Services Agreement among Regentys Corporation and its officers. (incorporated by reference to Exhibit 10.5 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.13</td>
<td>Promissory Note issued to Olaregen. (incorporated by reference to Exhibit 10.2 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.14</td>
<td>Pledge and Security Agreement between Generex Biotechnology Corporation and Olaregen (incorporated by reference to Exhibit 10.3 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.15</td>
<td>Amended and Restated Investor Rights Agreement of Olaregen (incorporated by reference to Exhibit 10.4 to Current Report on Form 8-K filed on January 11, 2019)</td>
</tr>
<tr>
<td>10.16</td>
<td>Amendment Agreement by and between Veneto Holdings, L.L.C., Generex Biotechnology Corporation, NuGenerex Distribution Solutions 2, LLC and the members of Veneto Holdings, L.L.C. effective January 15, 2019 (incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed on January 22, 2019)</td>
</tr>
<tr>
<td>10.18</td>
<td>Asset Purchase Agreement by and among Medisource Partners, LLC, Generex Biotechnology Corporation and NuGenerex Distribution Solutions, LLC, dated July 11, 2019 (incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed on July 16, 2019)</td>
</tr>
<tr>
<td>10.20</td>
<td>Stock Purchase Agreement by and between Generex Biotechnology Corporation and GH Care, Inc. DBA ALTuCELL, Inc., effective as of November 15, 2019 (incorporated by reference to 8-K filed November 27, 2019)</td>
</tr>
<tr>
<td>10.21</td>
<td>Equity Purchase Agreement between the Company and Oasis*</td>
</tr>
<tr>
<td>10.22</td>
<td>Registration Rights Agreement between the Company and Oasis*</td>
</tr>
<tr>
<td>10.23</td>
<td>Purchase Agreement between the Company and Discover *</td>
</tr>
<tr>
<td>10.24</td>
<td>Amendment Agreement between the Company and ALTuCELL (incorporated by reference to 8-K filed January 28, 2020)</td>
</tr>
<tr>
<td>10.25</td>
<td>Securities Purchase Agreement between the Company and Auctus*</td>
</tr>
<tr>
<td>10.26</td>
<td>Registration Rights Agreement between the Company and Auctus*</td>
</tr>
<tr>
<td>10.27</td>
<td>Warrant issued by the Company to Auctus*</td>
</tr>
<tr>
<td>16</td>
<td>Letter from MNP, LLP (incorporated by reference from Exhibit 16 to Current Report on Form 8-K June 5, 2019)</td>
</tr>
<tr>
<td>21</td>
<td>Subsidiaries of the Registrant (incorporated by reference to S-1 filed December 12, 2019)</td>
</tr>
<tr>
<td></td>
<td>Document Type</td>
</tr>
<tr>
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<tr>
<td>23.1</td>
<td>Consent of Mazars USA LLP*</td>
</tr>
<tr>
<td>23.2</td>
<td>Consent of MNP LLP*</td>
</tr>
<tr>
<td>23.3</td>
<td>Consent of Sichenzia Ross Ference LLP (to be filed by amendment)</td>
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<td>101.INS</td>
<td>XBRL Instance Document*</td>
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<td>101.SCH</td>
<td>XBRL Taxonomy Extension Schema Document*</td>
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<td>101.CAL</td>
<td>XBRL Taxonomy Calculation Linkbase Document*</td>
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<tr>
<td>101.DEF</td>
<td>XBRL Taxonomy Extension Definition Linkbase Document*</td>
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<tr>
<td>101.LAB</td>
<td>XBRL Taxonomy Label Linkbase Document*</td>
</tr>
<tr>
<td>101.PRE</td>
<td>XBRL Taxonomy Presentation Linkbase Document*</td>
</tr>
</tbody>
</table>

* Filed herewith
Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B (§230.430B of this chapter):

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) (§230.424(b)(3) of this chapter) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) (§230.424(b)(2), (b)(5), or (b)(7) of this chapter) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) (§230.415(a)(1)(i), (vii), or (x) of this chapter) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or
(ii) If the registrant is subject to Rule 430C (§230.430C of this chapter), each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A (§230.430A of this chapter), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (§230.424 of this chapter);

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.
SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Miramar, State of Florida on the 18th day of February, 2020.

GENEREX BIOTECHNOLOGY CORPORATION

By: /s/ Joseph Moscato

Joseph Moscato
President and Chief Executive Officer
(Principal executive officer)

By: /s/ Mark Corrao

Mark Corrao
Chief Financial Officer
(Principal Financial and Accounting officer)

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints each of Joseph Moscato and Mark Corrao, his true and lawful attorney-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, and in any and all capacities, to sign for him and in him name in the capacities indicated below any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<table>
<thead>
<tr>
<th>Name</th>
<th>Capacity in Which Signed</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>/s/ Joseph Moscato</td>
<td>President, Chief Executive Officer and Chairman</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Joseph Moscato</td>
<td>(Principal Executive Officer)</td>
<td></td>
</tr>
<tr>
<td>/s/ Mark Corrao</td>
<td>Chief Financial Officer</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Mark Corrao</td>
<td>(Principal Financial and Accounting Officer)</td>
<td></td>
</tr>
<tr>
<td>/s/ Brian T. McGee</td>
<td>Director</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Brian T. McGee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/ Andrew Ro</td>
<td>Director</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Andrew Ro</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/ Craig Eagle</td>
<td>Director</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Craig Eagle</td>
<td></td>
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</tr>
<tr>
<td>/s/ Lawrence Salvo</td>
<td>Director</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Lawrence Salvo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/ James T Anderson</td>
<td>Director</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>James T. Anderson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/ Mark Prioletti</td>
<td>Director</td>
<td>February 18, 2020</td>
</tr>
<tr>
<td>Mark Prioletti</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EQUITY PURCHASE AGREEMENT

THIS EQUITY PURCHASE AGREEMENT (this “Agreement”) is entered into as of December 6, 2019 (the “Execution Date”), by and between Generex Biotechnology Corporation, a Delaware corporation (the “Company”), and Oasis Capital, LLC, a Puerto Rico limited liability company (the “Investor”).

RECITALS

WHEREAS, the parties desire that, upon the terms and subject to the conditions contained herein, the Company shall issue and sell to the Investor, from time to time as provided herein, and the Investor shall purchase from the Company up to Forty Million Dollars ($40,000,000.00) of the Company’s Common Stock (as defined below);

NOW, THEREFORE, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Investor hereby agree as follows:

ARTICLE I CERTAIN DEFINITIONS

Section 1.1 RECITALS. The parties acknowledge and agree that the recitals set forth above are true and correct and are hereby incorporated in and made a part of this Agreement.

Section 1.2 DEFINED TERMS. As used in this Agreement, the following terms shall have the following meanings specified or indicated (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

“Agreement” shall have the meaning specified in the preamble hereof.

“Available Amount” means, initially, the Maximum Commitment Amount, which amount shall be reduced by the Investment Amount following each successful Closing, each time the Investor purchases shares of Common Stock pursuant to a Put.

“Average Daily Trading Volume” shall mean the average trading volume of the Company’s Common Stock in the ten (10) Trading Days immediately preceding the respective Put Date.

“Bankruptcy Law” means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.

“Claim Notice” shall have the meaning specified in Section 9.3(a).

“Clearing Costs” shall mean all of the Investor’s broker and Transfer Agent fees.

“Clearing Date” shall be the date on which the Investor receives the Put Shares as DWAC Shares in its brokerage account.

“Closing” shall mean one of the closings of a purchase and sale of shares of Common Stock pursuant to Section 2.3.

“Closing Certificate” shall mean the closing “Officer’s Certificate” of the Company in the form of Exhibit B hereto.
“Closing Date” shall mean the date of any Closing hereunder.

“Commitment Period” shall mean the period commencing on the Execution Date, and ending on the earlier of (i) the date on which the Investor shall have purchased Put Shares pursuant to this Agreement equal to the Maximum Commitment Amount, (ii) December 5, 2022, or (iii) written notice of termination by the Company to the Investor (which shall not occur at any time that the Investor holds any of the Put Shares).

“Commitment Shares” means 1,228,501 shares of Common Stock issued by the Company to the Investor pursuant to Section 6.5.

“Common Stock” shall mean the Company’s common stock, $0.001 par value per share, and any shares of any other class of common stock whether now or hereafter authorized, having the right to participate in the distribution of dividends (as and when declared) and assets (upon liquidation of the Company).

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Company” shall have the meaning specified in the preamble to this Agreement. “Confidential Information” means any information disclosed by either party to this Agreement, or their affiliates, agents or representatives, to the other party to this Agreement, either directly or indirectly, in writing, orally or by inspection of tangible objects (including, without limitation, documents, formulae, business information, trade secrets, technology, strategies, prototypes, samples, plant and equipment), which may or may not be designated as “Confidential,” “Proprietary” or some similar designation. Information communicated orally shall be considered Confidential Information if such information is confirmed in writing as being Confidential Information within ten (10) Trading Days after the initial disclosure. Confidential Information may also include information disclosed by third parties. Confidential Information shall not, however, include any information which (i) was publicly known and made generally available in the public domain prior to the time of disclosure by the disclosing party; (ii) becomes publicly known and made generally available after disclosure by the disclosing party to the receiving party through no fault, action or inaction of the receiving party; (iii) is already in the possession of the receiving party at the time of disclosure by the disclosing party as shown by the receiving party’s files and records immediately prior to the time of disclosure; (iv) is obtained by the receiving party from a third party without a breach of such third party’s obligations of confidentiality; (v) is independently developed by the receiving party without use of or reference to the disclosing party’s Confidential Information, as shown by documents and other competent evidence in the receiving party’s possession; or (vi) is required by law to be disclosed by the receiving party, provided that the receiving party gives the disclosing party prompt written notice of such requirement prior to such disclosure and assistance in obtaining an order protecting the information from public disclosure.

“Current Report” shall have the meaning set forth in Section 6.4.

“Custodian” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

“Damages” shall mean any loss, claim, damage, liability, cost and expense (including, without limitation, reasonable attorneys’ fees and disbursements and costs and expenses of expert witnesses and investigation).
“Dispute Period” shall have the meaning specified in Section 9.3(a).

“Disqualification Event” shall have the meaning specified in Section 4.27.

“DTC” shall mean The Depository Trust Company, or any successor performing substantially the same function for the Company.

“DTC/FAST Program” shall mean the DTC’s Fast Automated Securities Transfer Program.

“DWAC” shall mean Deposit Withdrawal at Custodian as defined by the DTC.

“DWAC Eligible” shall mean that (a) the Common Stock is eligible at DTC for full services pursuant to DTC’s operational arrangements, including, without limitation, transfer through DTC’s DWAC system, (b) the Company has been approved (without revocation) by the DTC’s underwriting department, (c) the Transfer Agent is approved as an agent in the DTC/FAST Program, (d) the Commitment Shares or Put Shares, as applicable, are otherwise eligible for delivery via DWAC, and (e) the Transfer Agent does not have a policy prohibiting or limiting delivery of the Put Shares or Commitment Shares, as applicable, via DWAC.

“DWAC Shares” means shares of Common Stock that are (i) issued in electronic form, (ii) freely tradable and transferable and without restriction on resale and (iii) timely credited by the Company to the Investor’s or its designee’s specified DWAC account with DTC under the DTC/FAST Program, or any similar program hereafter adopted by DTC performing substantially the same function.

“Environmental Laws” shall have the meaning set forth in Section 4.14.


“Execution Date” shall have the meaning set forth in the preamble to this Agreement.

“FINRA” shall mean the Financial Industry Regulatory Authority, Inc.

“Indemnified Party” shall have the meaning specified in Section 9.2.

“Indemnifying Party” shall have the meaning specified in Section 9.2.

“Indemnity Notice” shall have the meaning specified in Section 9.3(b).

“Intellectual Property” shall mean all trademarks, trademark applications, trade names, service marks, service mark registrations, service names, patents, patent applications, patent rights, copyrights, inventions, licenses, approvals, government authorizations, trade secrets or other intellectual property rights.

“Investment Amount” shall mean the dollar value equal to the amount of Put Shares referenced in the Put Notice multiplied by the Purchase Price minus the Clearing Costs.

“Investor” shall have the meaning specified in the preamble to this Agreement.

“Issuer Covered Person” shall have the meaning specified in Section 4.27.
“Lien” means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or any other restriction.

“Market Price” shall mean the one (1) lowest traded price of the Common Stock on the Principal Market for any Trading Day during the Valuation Period, as reported by Bloomberg Finance L.P. or other reputable source.

“Material Adverse Effect” shall mean any effect on the business, operations, properties, or financial condition of the Company and/or the Subsidiaries that is material and adverse to the Company and/or the Subsidiaries and/or any condition, circumstance, or situation that would prohibit or otherwise materially interfere with the ability of the Company and/or the Subsidiaries to enter into and/or perform its obligations under any Transaction Document.

“Maximum Commitment Amount” shall mean Forty Million Dollars ($40,000,000.00).

“Maximum Put Amount” shall mean that the lesser of (i) such amount that equals two hundred percent (200%) of the Average Daily Trading Volume, or (ii) Five Hundred Thousand Dollars ($500,000.00).

“Person” shall mean an individual, a corporation, a partnership, an association, a trust or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

“Principal Market” shall mean any of the national exchanges (i.e. NYSE, NYSE AMEX, NASDAQ), or principal quotation systems (i.e. OTCQX, OTCQB, OTC Pink, the OTC Bulletin Board), or other principal exchange or recognized quotation system which is at the time the principal trading platform or market for the Common Stock.

“Purchase Price” shall mean 92% of the Market Price on such date on which the Purchase Price is calculated in accordance with the terms and conditions of this Agreement.

“Put” shall mean the right of the Company to require the Investor to purchase shares of Common Stock, subject to the terms and conditions of this Agreement.

“Put Date” shall mean any Trading Day during the Commitment Period that a Put Notice is deemed delivered pursuant to Section 2.2(b).

“Put Notice” shall mean a written notice, substantially in the form of Exhibit A hereto, addressed to the Investor and setting forth the amount of Put Shares which the Company intends to require the Investor to purchase pursuant to the terms of this Agreement.

“Put Shares” shall mean all shares of Common Stock issued, or that the Company shall be entitled to issue, per any applicable Put Notice in accordance with the terms and conditions of this Agreement.

“Registration Rights Agreement” means that agreement in the form attached hereto as Exhibit D.

“Registration Statement” shall have the meaning specified in Section 6.4.

“Regulation D” shall mean Regulation D promulgated under the Securities Act.

“Required Minimum” shall mean, as of any date, the maximum aggregate number of shares of Common Stock then issued or potentially issuable in the future pursuant to the Transaction Documents.
“Rule 144” shall mean Rule 144 promulgated under the Securities Act or any similar provision then in force under the Securities Act.

“SEC” shall mean the United States Securities and Exchange Commission.

“SEC Documents” shall have the meaning specified in Section 4.5.

“Securities” means, collectively, the Put Shares and the Commitment Shares.

“Securities Act” shall mean the Securities Act of 1933, as amended.

“Short Sales” shall mean all “short sales” as defined in Rule 200 of Regulation SHO under the Exchange Act.

“Subsidiary” or “Subsidiaries” means any Person the Company wholly-owns or controls, or in which the Company, directly or indirectly, owns a majority of the voting stock or similar voting interest, in each case that would be disclosable pursuant to Item 601(b)(21) of Regulation S-K promulgated under the Securities Act.

“Third Party Claim” shall have the meaning specified in Section 9.3(a).

“Trading Day” shall mean a day on which the Principal Market shall be open for business.

“Transaction Documents” shall mean this Agreement, the Registration Rights Agreement and all schedules and exhibits hereto and thereto.

“Transfer Agent” shall mean Broadridge Financial Solutions, Inc., the current transfer agent of the Company, and any successor transfer agent of the Company.

“Valuation Period” shall mean the period of five (5) consecutive Trading Days immediately following the Clearing Date associated with the applicable Put Notice during which the Purchase Price of the Common Stock is valued, provided, however, that the Valuation Period shall instead begin on the Clearing Date if the respective Put Shares are received as DWAC Shares in Investor’s brokerage account prior to 11:00 a.m. EST on the respective Clearing Date.

ARTICLE II
PURCHASE AND SALE OF COMMON STOCK

Section 2.1 PUTS. Upon the terms and conditions set forth herein (including, without limitation, the provisions of Article VII), the Company shall have the right, but not the obligation, to direct the Investor, by its delivery to the Investor of a Put Notice from time to time during the Commitment Period, to purchase Put Shares, provided that notwithstanding any other terms of this Agreement, in each instance, (i) the Investment Amount is not more than the Maximum Put Amount and (ii) the aggregate Investment Amount of all Puts shall not exceed the Maximum Commitment Amount.

Section 2.2 MECHANICS

(a) PUT NOTICE. At any time and from time to time during the Commitment Period, except as provided in this Agreement, the Company may deliver a Put Notice to Investor, subject to satisfaction of the conditions set forth in Section 7.2 and otherwise provided herein. The Company shall deliver, or cause
to be delivered, the Put Shares as DWAC Shares to the Investor within two (2) Trading Days following the Put Date.

(b) **DATE OF DELIVERY OF PUT NOTICE.** A Put Notice shall be deemed delivered on (i) the Trading Day it is received by e-mail by the Investor if such notice is received on or prior to 8:30 a.m. EST or (ii) the immediately succeeding Trading Day if it is received by e-mail after 8:30 a.m. EST on a Trading Day or at any time on a day which is not a Trading Day. The Company shall not deliver another Put Notice to the Investor within ten (10) Trading Days of a prior Put Notice.

Section 2.3 CLOSINGS.

(a) **TIMING.** The Closing of a Put shall occur within one (1) Trading Day following the end of the respective Valuation Period, whereby the Investor shall deliver the Investment Amount by wire transfer of immediately available funds to an account designated by the Company. In addition, on or prior to such Closing, each of the Company and the Investor shall deliver to each other all documents, instruments and writings required to be delivered or reasonably requested by either of them pursuant to this Agreement in order to implement and effect the transactions contemplated herein.

(b) **RETURN OF SURPLUS.** If the value of the Put Shares delivered to the Investor causes the Company to exceed the Maximum Commitment Amount, then the Investor shall return to the Company the surplus amount of Put Shares associated with such Put and the Purchase Price with respect to such Put shall be reduced by any Clearing Costs related to the return of such Put Shares.

(c) **RESALES DURING VALUATION PERIOD.** The parties acknowledge and agree that during the Valuation Period, the Investor may contract for, or otherwise effect, the resale of the subject purchased Put Shares to third-parties.

**ARTICLE III**

**REPRESENTATIONS AND WARRANTIES OF INVESTOR**

The Investor represents and warrants to the Company that:

Section 3.1 **INTENT.** The Investor is entering into this Agreement for its own account, and the Investor has no present arrangement (whether or not legally binding) at any time to sell the Securities to or through any Person in violation of the Securities Act or any applicable state securities laws; provided, however, that the Investor reserves the right to dispose of the Securities at any time in accordance with federal and state securities laws applicable to such disposition.

Section 3.2 **NO LEGAL ADVICE FROM THE COMPANY.** The Investor acknowledges that it has had the opportunity to review this Agreement and the transactions contemplated by this Agreement with its own legal counsel and investment and tax advisors. Except with respect to the representations, warranties and covenants contained in this Agreement, the Investor is relying solely on such counsel and advisors and not on any statements or representations of the Company or any of its representatives or agents for legal, tax or investment advice with respect to this investment, the transactions contemplated by this Agreement or the securities laws of any jurisdiction.

Section 3.3 **ACCREDITED INVESTOR.** The Investor is an accredited investor as defined in Rule 501(a)(3) of Regulation D, and the Investor has such experience in business and financial matters that it is capable of evaluating the merits and risks of an investment in the Securities. The Investor acknowledges that an investment in the Securities is speculative and involves a high degree of risk.
Section 3.4 AUTHORITY. The Investor has the requisite power and authority to enter into and perform its obligations under this Agreement and the other Transaction Documents and to consummate the transactions contemplated hereby and thereby. The execution and delivery of this Agreement and the other Transaction Documents and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action and no further consent or authorization of the Investor is required. Each Transaction Document to which it is a party has been duly executed by the Investor, and when delivered by the Investor in accordance with the terms hereof, will constitute the valid and binding obligation of the Investor enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, or similar laws relating to, or affecting generally the enforcement of, creditors’ rights and remedies or by other equitable principles of general application.

Section 3.5 NOT AN AFFILIATE. To the Investor’s knowledge, the Investor is not an officer, director or “affiliate” (as such term is defined in Rule 405 of the Securities Act) of the Company.

Section 3.6 ORGANIZATION AND STANDING. The Investor is an entity duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation with full right, limited liability company power and authority to enter into and to consummate the transactions contemplated by this Agreement and the other Transaction Documents.

Section 3.7 ABSENCE OF CONFLICTS. The execution and delivery of this Agreement and the other Transaction Documents, and the consummation of the transactions contemplated hereby and thereby and compliance with the requirements hereof, will not (a) violate any law, rule, regulation, order, writ, judgment, injunction, decree or award binding on the Investor, (b) violate any provision of any indenture, instrument or agreement to which the Investor is a party or is subject, or by which the Investor or any of its assets is bound, or conflict with or constitute a material default thereunder, (c) result in the creation or imposition of any lien pursuant to the terms of any such indenture, instrument or agreement, or constitute a breach of any fiduciary duty owed by the Investor to any third party, or (d) require the approval of any third-party (that has not been obtained) pursuant to any material contract, instrument, agreement, relationship or legal obligation to which the Investor is subject or to which any of its assets, operations or management may be subject.

Section 3.8 DISCLOSURE; ACCESS TO INFORMATION. The Investor had an opportunity to review copies of the SEC Documents filed on behalf of the Company and has had access to all publicly available information with respect to the Company; provided, however, that the Investor makes no representation or warranty hereunder with respect to any SEC Document and is relying on the representations and warranties of the Company in Article IV with respect to the SEC Documents.

Section 3.9 MANNER OF SALE. At no time was the Investor presented with or solicited by or through any leaflet, public promotional meeting, television advertisement or any other form of general solicitation or advertisement regarding the Securities.

ARTICLE IV
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company represents and warrants to the Investor that, except as set forth in the disclosure schedules hereto that as of the Execution Date and at each Closing Date:

Section 4.1 ORGANIZATION OF THE COMPANY. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the state of Delaware, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing
and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Each of the Company and the Subsidiaries is not in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in a Material Adverse Effect and no proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

Section 4.2 AUTHORITY. The Company has the requisite corporate power and authority to enter into and perform its obligations under this Agreement and the other Transaction Documents. The execution and delivery of this Agreement and the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate action and no further consent or authorization of the Company or its Board of Directors or stockholders is required. Each of this Agreement and the other Transaction Documents has been duly executed and delivered by the Company and constitutes a valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, or similar laws relating to, or affecting generally the enforcement of, creditors’ rights and remedies or by other equitable principles of general application.

Section 4.3 CAPITALIZATION. As of the Execution Date, the authorized capital stock of the Company consists of (a) 750,000,000 shares of Common Stock, par value of $0.001 per share, of which approximately 44,272,855 shares of Common Stock are issued and outstanding and (b) 109,000 Series H and 6,000 Series I shares of preferred stock, of which 0 shares of preferred stock are issued and outstanding. Except as set forth on Schedule 4.3, the Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee stock options under the Company’s stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company’s employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as set forth on Schedule 4.3, and except as a result of the purchase and sale of the Securities, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Investor) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company’s capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company’s stockholders.

Section 4.4 LISTING AND MAINTENANCE REQUIREMENTS. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act, nor has the Company received any notification that the SEC is contemplating terminating such registration. The Company has not, in the twelve (12) months preceding
the Execution Date, received notice from the Principal Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Principal Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements.

Section 4.5 SEC DOCUMENTS; DISCLOSURE. Except as set forth on Schedule 4.5, the Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the one (1) year preceding the Execution Date (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the “SEC Documents”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Documents prior to the expiration of any such extension. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and other federal laws, rules and regulations applicable to such SEC Documents, and none of the SEC Documents when filed contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents comply as to form and substance in all material respects with applicable accounting requirements and the published rules and regulations of the SEC or other applicable rules and regulations with respect thereto. Such financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved (except (a) as may be otherwise indicated in such financial statements or the notes thereto or (b) in the case of unaudited interim statements, to the extent they may not include footnotes or may be condensed or summary statements) and fairly present in all material respects the financial position of the Company as of the dates thereof and the results of operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments). The Company maintains a system of internal accounting controls appropriate for its size. There is no transaction, arrangement, or other relationship between the Company and an unconsolidated or other off balance sheet entity that is not disclosed by the Company in its financial statements or otherwise that would be reasonably likely to have a Material Adverse Effect. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor any other Person acting on its behalf has provided the Investor or its agents or counsel with any information that it believes constitutes or might constitute material, non-public information. The Company understands and confirms that the Investor will rely on the foregoing representation in effecting transactions in securities of the Company.

Section 4.6 VALID ISSUANCES. The Securities are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be validly issued, fully paid, and non-assessable, free and clear of all Liens imposed by the Company, other than restrictions on transfer provided for in the Transaction Documents and under the Securities Act.

Section 4.7 NO CONFLICTS. The execution, delivery and performance of this Agreement and the other Transaction Documents by the Company, and the consummation by the Company of the transactions contemplated hereby and thereby, including, without limitation, the issuance of the Put Shares and the Commitment Shares, do not and will not: (a) result in a violation of the Company’s or any Subsidiary’s certificate or articles of incorporation, by-laws or other organizational or charter documents, (b) conflict with, or constitute a material default (or an event that with notice or lapse of time or both would become a material default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture, instrument or any “lock-up” or similar provision of any
underwriting or similar agreement to which the Company or any Subsidiary is a party, or (c) result in a violation of any federal, state or local law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations) applicable to the Company or any Subsidiary or by which any property or asset of the Company or any Subsidiary is bound or affected (except for such conflicts, defaults, terminations, amendments, accelerations, cancellations and violations as would not, individually or in the aggregate, have a Material Adverse Effect), nor is the Company otherwise in violation of, conflict with or in default under any of the foregoing. The business of the Company is not being conducted in violation of any law, ordinance or regulation of any governmental entity, except for possible violations that either singly or in the aggregate do not and will not have a Material Adverse Effect. The Company is not required under federal, state or local law, rule or regulation to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency in order for it to execute, deliver or perform any of its obligations under this Agreement or the other Transaction Documents (other than any SEC, FINRA or state securities filings that may be required to be made by the Company in connection with the issuance of the Commitment Shares or subsequent to any Closing or any registration statement that may be filed pursuant hereto); provided that, for purposes of the representation made in this sentence, the Company is assuming and relying upon the accuracy of the relevant representations and agreements of Investor herein.

Section 4.8 NO MATERIAL ADVERSE CHANGE. No event has occurred that would have a Material Adverse Effect on the Company or any Subsidiary that has not been disclosed in subsequent SEC filings.

Section 4.9 LITIGATION AND OTHER PROCEEDINGS. Except as set forth on Schedule 4.9, there are no actions, suits, investigations, inquiries or proceedings pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties, nor has the Company received any written or oral notice of any such action, suit, proceeding, inquiry or investigation, which would have a Material Adverse Effect or would require disclosure under the Securities Act or the Exchange Act. No judgment, order, writ, injunction or decree or award has been issued by or, to the knowledge of the Company, requested of any court, arbitrator or governmental agency which would have a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the SEC involving the Company, any Subsidiary, or any current or former director or officer of the Company or any Subsidiary.

Section 4.10 REGISTRATION RIGHTS. Except as set forth on Schedule 4.10, no Person (other than the Investor) has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

Section 4.11 INVESTOR’S STATUS. The Company acknowledges and agrees that the Investor is acting solely in the capacity of arm’s length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby. The Company further acknowledges that the Investor is not acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated hereby and thereby and any advice given by the Investor or any of its representatives or agents in connection with the Transaction Documents and the transactions contemplated hereby and thereby is merely incidental to the Investor’s purchase of the Securities. The Company further represents to the Investor that the Company’s decision to enter into the Transaction Documents has been based solely on the independent evaluation by the Company and its representatives and advisors.

Section 4.12 NO GENERAL SOLICITATION; NO INTEGRATED OFFERING. Neither the Company, any Subsidiary, nor any of their respective affiliates, nor any Person acting on their behalf, has engaged in any form of general solicitation or general advertising (within the meaning of Regulation D under the Securities Act) in connection with the offer or sale of the Securities. Neither the Company, any
Subsidiary, nor any of their respective affiliates, nor any Person acting on their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would require registration of the offer and sale of any of the Securities under the Securities Act, whether through integration with prior offerings or otherwise, or cause this offering of the Securities to be integrated with prior offerings by the Company in a manner that would require stockholder approval pursuant to the rules of the Principal Market on which any of the securities of the Company are listed or designated. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Principal Market.

Section 4.13 INTELLECTUAL PROPERTY RIGHTS. The Company and each Subsidiary own or possess adequate rights or licenses to use all material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and rights necessary to conduct their respective businesses as now conducted. None of the Company’s, nor any Subsidiary’s material Intellectual Property has expired or terminated, or, by the terms and conditions thereof, could expire or terminate within two years from the date of this Agreement. The Company does not have any knowledge of any infringement by the Company and/or any Subsidiary of any material Intellectual Property of others, or of any such development of similar or identical trade secrets or technical information by others, and there is no claim, action or proceeding being made or brought against, or to the Company’s knowledge, being threatened against, the Company and/or any Subsidiary regarding the infringement of any Intellectual Property, which could reasonably be expected to have a Material Adverse Effect.

Section 4.14 ENVIRONMENTAL LAWS. To the Company’s knowledge, the Company and each Subsidiary (i) is in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (“Environmental Laws”), (ii) has received all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its respective businesses and (iii) is in compliance with all terms and conditions of any such permit, license or approval, except where, in each of the three foregoing clauses, the failure to so comply could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 4.15 TITLE. Except as disclosed in the SEC Documents, the Company and each Subsidiary has good and marketable title in fee simple to all real property owned by it and good and marketable title in all personal property owned by it that is material to the business of the Company and each Subsidiary, in each case free and clear of all Liens and, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company or any Subsidiary and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company or any Subsidiary is held under valid, subsisting and enforceable leases with which the Company is in compliance with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company or any Subsidiary.

Section 4.16 INSURANCE. The Company and each Subsidiary is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and each Subsidiary is engaged. Neither the Company, nor any Subsidiary has been refused any insurance coverage sought or applied for, and the Company has no reason to believe that it or any Subsidiary will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not materially and adversely affect the condition, financial or otherwise, or the earnings, business or operations of the Company, taken as a whole.
Section 4.17 REGULATORY PERMITS. The Company and each Subsidiary possesses all material certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct its businesses, and neither the Company, nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit.

Section 4.18 TAX STATUS. The Company and each Subsidiary has made or filed all federal and state income and all other material tax returns, reports and declarations required by any jurisdiction to which it is subject (unless and only to the extent that the Company has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes) and has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and has set aside on its books provision reasonably adequate for the payment of all taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim.

Section 4.19 TRANSACTIONS WITH AFFILIATES. Except as set forth in the SEC Documents, none of the officers or directors of the Company or any Subsidiary, and to the knowledge of the Company, none of the employees of the Company or any Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of the lesser of (i) $120,000 or (ii) one percent of the average of the Company’s total assets at year end for the last two completed fiscal years, other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company or any Subsidiary and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

Section 4.20 APPLICATION OF TAKEOVER PROTECTIONS. The Company and its board of directors have taken or will take prior to the Execution Date all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the articles of incorporation or the laws of the state of its incorporation which is or could become applicable to the Investor as a result of the transactions contemplated by this Agreement, including, without limitation, the Company’s issuance of the Securities and the Investor’s ownership of the Securities.

Section 4.21 FOREIGN CORRUPT PRACTICES. Neither the Company, any Subsidiary, nor to the knowledge of the Company, any agent or other Person acting on behalf of the Company or any Subsidiary, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or any Subsidiary (or made by any Person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

Section 4.22 SARBANES-OXLEY. The Company is in compliance with all provisions of the Sarbanes-Oxley Act of 2002, as amended, which are applicable to it.
Section 4.23 **CERTAIN FEES.** No brokerage or finder’s fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The Investor shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 4.22 that may be due in connection with the transactions contemplated by the Transaction Documents.

Section 4.24 **INVESTMENT COMPANY.** The Company is not an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

Section 4.25 **ACCOUNTANTS.** The Company’s accountants are set forth in the SEC Documents and, to the knowledge of the Company, such accountants are an independent registered public accounting firm as required by the Securities Act.

Section 4.26 **NO MARKET MANIPULATION.** Neither the Company, nor any Subsidiary has, and to its knowledge no Person acting on either of their behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company.

Section 4.27 **NO DISQUALIFICATION EVENTS.** None of the Company, any Subsidiary, any of their predecessors, any affiliated issuer, any director, executive officer, other officer of the Company or any Subsidiary participating in the offering contemplated hereby, any beneficial owner of 20% or more of the Company’s outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an “Issuer Covered Person”) is subject to any of the “Bad Actor” disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a “Disqualification Event”), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3) under the Securities Act. The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event.

Section 4.28 **MONEY LAUNDERING.** The Company and each Subsidiary is in compliance with, and has not previously violated, the USA PATRIOT ACT of 2001 and all other applicable U.S. and non-U.S. anti-money laundering laws and regulations, including, but not limited to, the laws, regulations and Executive Orders and sanctions programs administered by the U.S. Office of Foreign Assets Control, including, but not limited, to (i) Executive Order 13224 of September 23, 2001 entitled, “Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism” (66 Fed. Reg. 49079 (2001)); and (ii) any regulations contained in 31 CFR, Subtitle B, Chapter V.

Section 4.29 **ILLEGAL OR UNAUTHORIZED PAYMENTS; POLITICAL CONTRIBUTIONS.** Neither the Company, nor any Subsidiary has, nor, to the best of the Company’s knowledge (after reasonable inquiry of its officers and directors), any of the officers, directors, employees, agents or other representatives of the Company, any Subsidiary or any other business entity or enterprise with which the Company is or has been affiliated or associated, has, directly or indirectly, made or authorized any payment, contribution or gift of money, property, or services, whether or not in contravention of applicable law, (a) as a kickback or bribe to any Person or (b) to any political organization, or the holder of or any aspirant to any elective or appointive public office except for personal political contributions not involving the direct or indirect use of funds of the Company.
Section 4.30 SHELL COMPANY STATUS. The Company is not currently an issuer identified in Rule 144(i)(1)(i) under the Securities Act, is subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, has filed all reports and other materials required to be filed by Section 13 or 15(d) of the Exchange Act, as applicable during the preceding 12 months, and, as of a date at least one year prior to the Execution Date, has filed current “Form 10 information” with the SEC (as defined in Rule 144(i)(3) of the Securities Act) reflecting its status as an entity that is no longer an issuer described in Rule 144(i)(1)(i) of the Securities Act.

Section 4.31 ABSENCE OF SCHEDULES. In the event that on the Execution Date, the Company does not deliver any disclosure schedule contemplated by this Agreement, the Company hereby acknowledges and agrees that (i) each such undelivered disclosure schedule shall be deemed to read as follows: “Nothing to Disclose”, and (ii) the Investor has not otherwise waived delivery of such disclosure schedule.

ARTICLE V COVENANTS OF INVESTOR

Section 5.1 COMPLIANCE WITH LAW; TRADING IN SECURITIES. The Investor’s trading activities with respect to shares of Common Stock will be in compliance with all applicable state and federal securities laws and regulations and the rules and regulations of FINRA and the Principal Market.

Section 5.2 SHORT SALES AND CONFIDENTIALITY. Neither the Investor, nor any affiliate of the Investor acting on its behalf or pursuant to any understanding with it, will execute any Short Sales during the period from the Execution Date to the end of the Commitment Period. For the purposes hereof, and in accordance with Regulation SHO, the sale after delivery of a Put Notice of such number of shares of Common Stock reasonably expected to be purchased under a Put Notice shall not be deemed a Short Sale. The Investor shall, until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company in accordance with the terms of this Agreement, maintain the confidentiality of the existence and terms of this transaction and the information included in the Transaction Documents. The Investor agrees not to disclose any Confidential Information of the Company to any third party, except for attorneys, accountants, advisors who have a need to know such Confidential Information and are bound by confidentiality, and shall not use any Confidential Information for any purpose other than in connection with, or in furtherance of, the transactions contemplated hereby. The Investor acknowledges that the Confidential Information of the Company shall remain the property of the Company and agrees that it shall take all reasonable measures to protect the secrecy of any Confidential Information disclosed by the Company.

ARTICLE VI COVENANTS OF THE COMPANY

Section 6.1 REMOVED AND RESERVED.

Section 6.2 LISTING OF COMMON STOCK. The Company shall promptly secure the listing of all of the Put Shares and Commitment Shares to be issued to the Investor hereunder on the Principal Market (subject to official notice of issuance) and shall use commercially reasonable best efforts to maintain, so long as any shares of Common Stock shall be so listed, the listing of all such Put Shares and Commitment Shares from time to time issuable hereunder. The Company shall use its commercially reasonable efforts to continue the listing and trading of the Common Stock on the Principal Market (including, without limitation, maintaining sufficient net tangible assets) and will comply in all respects with the Company’s reporting, filing and other obligations under the bylaws or rules of FINRA and the Principal Market. The Company shall not take any action that would reasonably be expected to result in the
delisting or suspension of the Common Stock on the Principal Market. The Company shall promptly, and in no event later than the following Trading Day, provide to the Investor copies of any notices it receives from any Person regarding the continued eligibility of the Common Stock for listing on the Principal Market. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 6.2. The Company shall take all action necessary to ensure that its Common Stock can be transferred electronically as DWAC Shares.

Section 6.3 OTHER EQUITY LINES. So long as this Agreement remains in effect, the Company covenants and agrees that it will not, without the prior written consent of the Investor, enter into any other equity line of credit agreement with any other party, without the Investor’s prior written consent, which consent may be granted or withheld in the Investor’s sole and absolute discretion.

Section 6.4 FILING OF CURRENT REPORT AND REGISTRATION STATEMENT. The Company agrees that it shall file a Current Report on Form 8-K, including the Transaction Documents as exhibits thereto, with the SEC within the time required by the Exchange Act, relating to the transactions contemplated by, and describing the material terms and conditions of, the Transaction Documents (the “Current Report”). The Company shall permit the Investor to review and comment upon the final pre-filing draft version of the Current Report at least two (2) Trading Days prior to its filing with the SEC, and the Company shall give reasonable consideration to all such comments. The Investor shall use its reasonable best efforts to comment upon the final pre-filing draft version of the Current Report within one (1) Trading Day from the date the Investor receives it from the Company. Pursuant to the terms of the Registration Rights Agreement, the Company shall also file with the SEC, on or before the twenty-eighth (28th) day following the Execution Date, a new registration statement on Form S-1 (the “Registration Statement”) covering only the resale of the Put Shares and Commitment Shares.

Section 6.5 ISSUANCE OF COMMITMENT SHARES. In consideration for the Investor’s execution and delivery of, and performance under this Agreement, the Company shall cause the Transfer Agent to issue the Commitment Shares to the Investor on the Execution Date. For the avoidance of doubt, all of the Commitment Shares shall be fully earned as of the Execution Date, and the issuance of the Commitment Shares is not contingent upon any other event or condition, including, without limitation, the effectiveness of the Registration Statement or the Company’s submission of a Put Notice to the Investor and irrespective of any termination of this Agreement. Furthermore, half of the Commitment Shares will be returned to the Company if the Company determines, in its sole discretion, to terminate this Agreement consistent with the Section 10.6 of this Agreement within six months of the S-1 being declared effective by the SEC (“S-1 Effective Date”). Until the six-month anniversary of the S-1 Effective Date, the Investor will hold half of the Commitment Shares in book entry at the Company’s transfer agent.

Section 6.6 DUE DILIGENCE; CONFIDENTIALITY; NON-PUBLIC INFORMATION. The Investor shall have the right, from time to time as the Investor may reasonably deem appropriate, to perform reasonable due diligence on the Company during normal business hours. The Company, each Subsidiary and their respective officers and employees shall provide information and reasonably cooperate with the Investor in connection with any reasonable request by the Investor related to the Investor’s due diligence of the Company. The Company agrees not to disclose any Confidential Information of the Investor to any third party, except for attorneys, accountants, advisors who have a need to know such Confidential Information and are bound by confidentiality, and shall not use any Confidential Information for any purpose other than in connection with, or in furtherance of, the transactions contemplated hereby. The Company acknowledges that the Confidential Information of the Investor shall remain the property of the Investor and agrees that it shall take all reasonable measures to protect the secrecy of any Confidential Information disclosed by the Investor. The Company confirms that neither it nor any other Person acting on its behalf shall provide the Investor or its agents or counsel with any information that constitutes or might constitute material, non-public information, unless a simultaneous public announcement thereof is made by the Company in the manner contemplated by Regulation FD. In the event of a breach of the foregoing
covenant by the Company or any Person acting on its behalf (as determined in the reasonable good faith judgment of the Investor), in addition to any other remedy provided herein or in the other Transaction Documents, the Investor shall have the right to make a public disclosure, in the form of a press release, public advertisement or otherwise, of such material, non-public information without the prior approval by the Company; provided the Investor shall have first provided notice to the Company that it believes it has received information that constitutes material, non-public information, and the Company shall have had at least twenty-four (24) hours to publicly disclose such material, non-public information prior to any such disclosure by the Investor, and the Company shall have failed to publicly disclose such material, non-public information within such time period. The Investor shall not have any liability to the Company, any Subsidiary, or any of their respective directors, officers, employees, stockholders, affiliates or agents, for any such disclosure. The Company understands and confirms that the Investor shall be relying on the foregoing covenants in effecting transactions in securities of the Company.

Section 6.7 PURCHASE RECORDS. The Company shall maintain records showing the Available Amount at any given time and the date, Investment Amount and Put Shares for each Put, contained in the applicable Put Notice.

Section 6.8 TAXES. The Company shall pay any and all transfer, stamp or similar taxes that may be payable with respect to the issuance and delivery of any shares of Common Stock to the Investor made under this Agreement.

Section 6.9 USE OF PROCEEDS. The Company will use the net proceeds from the offering of Put Shares hereunder in the manner described in the Registration Statement or the SEC Documents.

Section 6.10 OTHER TRANSACTIONS. The Company shall not enter into, announce or recommend to its stockholders any agreement, plan, arrangement or transaction in or of which the terms thereof would restrict, materially delay, conflict with or impair the ability or right of the Company to perform its obligations under the Transaction Documents, including, without limitation, the obligation of the Company to deliver the Put Shares and the Commitment Shares to the Investor in accordance with the terms of the Transaction Documents.

Section 6.11 INTEGRATION. In any case subject to the terms of the Registration Rights Agreement, from and after the Execution Date, neither the Company, nor or any of its affiliates will, and the Company shall use its reasonable best efforts to ensure that no Person acting on their behalf will, directly or indirectly, make any offers or sales of any security or solicit any offers to buy any security, under circumstances that would require registration of the offer and sale of any of the Securities under the Securities Act.

Section 6.12 KEY PERSON. If at any time during the Commitment Period either of the Company’s CEO or COO as of the Execution Date, resigns or is otherwise removed from office (except for cases of death or disability), then a liquidated damages charge of $25,000.00 will be assessed, in each case, and will become immediately due and payable to the Buyer in the form of cash payment. The liquidated damages charge in this Section 6.12 shall be in addition to, and not in substitution of, any of the other rights of the Investor under this Agreement.

Section 6.13 TRANSACTION DOCUMENTS. On the Execution Date, the Company shall deliver to the Investor executed copies of all of the Transaction Documents.

ARTICLE VII
CONDITIONS TO DELIVERY OF PUT NOTICES AND CONDITIONS TO CLOSING

Section 7.1 CONDITIONS PRECEDENT TO THE RIGHT OF THE COMPANY TO ISSUE AND SELL PUT SHARES. The right of the Company to issue and sell the Put Shares to the Investor is
subject to the satisfaction of each of the conditions set forth below:

(a) ACCURACY OF INVESTOR’S REPRESENTATIONS AND WARRANTIES. The representations and warranties of the Investor shall be true and correct in all material respects as of the Execution Date and as of the date of each Closing as though made at each such time.

(b) PERFORMANCE BY INVESTOR. Investor shall have performed, satisfied and complied in all respects with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Investor at or prior to such Closing.

(c) REGISTRATION STATEMENT. The Company shall not have the right to issue any Put Shares if the Registration Statement, and any amendment or supplement thereto, shall not have the right to issue any Put Shares if the Registration Statement, and any amendment or supplement thereto, shall fail to be and remain effective for the resale by the Investor of the Put Shares and Commitment Shares.

Section 7.2 CONDITIONS PRECEDENT TO THE OBLIGATION OF INVESTOR TO PURCHASE PUT SHARES. The obligation of the Investor hereunder to purchase Put Shares is subject to the satisfaction of each of the following conditions:

(a) REGISTRATION STATEMENT. The Registration Statement, and any amendment or supplement thereto, shall be and remain effective for the resale by the Investor of the Put Shares and the Commitment Shares and (i) neither the Company nor the Investor shall have received notice that the SEC has issued or intends to issue a stop order with respect to such Registration Statement or that the SEC otherwise has suspended or withdrawn the effectiveness of such Registration Statement, either temporarily or permanently, or intends or has threatened to do so and (ii) no other suspension of the use of, or withdrawal of the effectiveness of, such Registration Statement or related prospectus shall exist. The Company shall have prepared and filed with the SEC a final and complete prospectus (the preliminary form of which shall be included in the Registration Statement) and shall have delivered to the Investor a true and complete copy thereof. Such prospectus shall be current and available for the resale by the Investor of all of the Securities covered thereby.

(b) ACCURACY OF THE COMPANY’S REPRESENTATIONS AND WARRANTIES. The representations and warranties of the Company shall be true and correct in all material respects as of the Execution Date and as of the date of each Closing (except for representations and warranties under the first sentence of Section 4.3, which are specifically made as of the Execution Date and shall be true and correct in all respects as of the Execution Date).

(c) PERFORMANCE BY THE COMPANY. The Company shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company.

(d) NO INJUNCTION. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or adopted by any court or governmental authority of competent jurisdiction that prohibits or directly and materially adversely affects any of the transactions contemplated by the Transaction Documents, and no proceeding shall have been commenced that may have the effect of prohibiting or materially adversely affecting any of the transactions contemplated by the Transaction Documents.

(e) ADVERSE CHANGES. Since the date of filing of the Company’s most recent SEC Document, no event that had or is reasonably likely to have a Material Adverse Effect has occurred.

(f) NO SUSPENSION OF TRADING IN OR DELISTING OF COMMON STOCK. The trading of the Common Stock shall not have been suspended by the SEC, the Principal Market or FINRA, or otherwise halted for any reason, and the Common Stock shall have been approved for listing or quotation
on and shall not have been delisted from the Principal Market. In the event of a suspension, delisting, or halting for any reason, of the trading of the Common Stock, as contemplated by this Section 7.2(f), the Investor shall have the right to return to the Company any remaining amount of Put Shares associated with such Put, and the Purchase Price with respect to such Put shall be reduced accordingly.

(g) **BENEFICIAL OWNERSHIP LIMITATION.** The number of Put Shares to be purchased by the Investor shall not exceed the number of such shares that, when aggregated with all other shares of Common Stock then owned by the Investor beneficially or deemed beneficially owned by the Investor, would result in the Investor owning more than the Beneficial Ownership Limitation (as defined below), as determined in accordance with Section 16 of the Exchange Act and the regulations promulgated thereunder. For purposes of this Section 7.2(g), in the event that the amount of Common Stock outstanding, as determined in accordance with Section 16 of the Exchange Act and the regulations promulgated thereunder, is greater on a Closing Date than on the date upon which the Put Notice associated with such Closing Date is given, the amount of Common Stock outstanding on such Closing Date shall govern for purposes of determining whether the Investor, when aggregating all purchases of Common Stock made pursuant to this Agreement, would own more than the Beneficial Ownership Limitation following such Closing Date. The “Beneficial Ownership Limitation” shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable pursuant to a Put Notice.

(h) **NO KNOWLEDGE.** The Company shall have no knowledge of any event more likely than not to have the effect of causing the Registration Statement to be suspended or otherwise ineffective (which event is more likely than not to occur within the fifteen (15) Trading Days following the Trading Day on which such Put Notice is deemed delivered). The Company shall have no knowledge of any untrue statement (or alleged untrue statement) of a material fact or omission (or alleged omission) of a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, in the Registration Statement, any effective registration statement filed pursuant to the Registration Rights Agreement or any post-effective amendment or prospectus which is a part of the foregoing, unless the Company has filed an amendment with the SEC or taken such other.

(i) **NO VIOLATION OF SHAREHOLDER APPROVAL REQUIREMENT.** The issuance of the Put Shares shall not violate the shareholder approval requirements of the Principal Market.

(j) **OFFICER’S CERTIFICATE.** On the date of delivery of each Put Notice, the Investor shall have received the Closing Certificate executed by an executive officer of the Company and to the effect that all the conditions to such Closing shall have been satisfied as of the date of each such certificate.

(k) **DWAC ELIGIBLE.** The Common Stock must be DWAC Eligible and not subject to a “DTC chill.”

(l) **SEC DOCUMENTS.** All reports, schedules, registrations, forms, statements, information and other documents required to have been filed by the Company with the SEC pursuant to the reporting requirements of the Exchange Act (other than Forms 8-K) shall have been filed with the SEC within the applicable time periods prescribed for such filings under the Exchange Act.

(m) **REMOVED AND RESERVED.**

(n) **REMOVED AND RESERVED.**
MINIMUM PRICING. The lowest traded price of the Common Stock in the five (5) Trading Days immediately preceding the respective Put Date must exceed $0.01 per share.

NO VIOLATION. No statute, regulation, order, guidance, decree, writ, ruling or injunction shall have been enacted, entered, promulgated, threatened or endorsed by any federal, state, local or foreign court or governmental authority of competent jurisdiction, including, without limitation, the SEC, which prohibits the consummation of or which would materially modify or delay any of the transactions contemplated by the Transaction Documents.

LEGAL OPINION. The Company shall cause to be delivered to the Investor a written opinion of counsel satisfactory to the Investor, in form and substance satisfactory to the Investor and its counsel, relating to the availability and effectiveness of the Registration Statement, as supplemented by any prospectus supplement or amendment thereto, and regarding the Company’s compliance with the Delaware Statutes and the federal securities laws of the United States in the issuance, sale and registration of the Put Shares and Commitment Shares.

ARTICLE VIII LEGENDS

Section 8.1 NO RESTRICTIVE STOCK LEGEND. No restrictive stock legend shall be placed on the share certificates representing the Put Shares.

Section 8.2 INVESTOR’S COMPLIANCE. Nothing in this Article VIII shall affect in any way the Investor’s obligations hereunder to comply with all applicable securities laws upon the sale of the Common Stock.

ARTICLE IX NOTICES; INDEMNIFICATION

Section 9.1 NOTICES. All notices, demands, requests, consents, approvals, and other communications required or permitted hereunder shall be in writing and, unless otherwise specified herein, shall be (a) personally served, (b) deposited in the mail, registered or certified, return receipt requested, postage prepaid, (c) delivered by reputable air courier service with charges prepaid, or (d) transmitted by hand delivery, telegram, or e-mail as a PDF, addressed as set forth below or to such other address as such party shall have specified most recently by written notice given in accordance herewith. Any notice or other communication required or permitted to be given hereunder shall be deemed effective (i) upon hand delivery or delivery by e-mail at the address designated below (if delivered on a business day during normal business hours where such notice is to be received), or the first business day following such delivery (if delivered other than on a business day during normal business hours where such notice is to be received) or (ii) on the second business day following the date of mailing by express courier service or on the fifth business day after deposited in the mail, in each case, fully prepaid, addressed to such address, or upon actual receipt of such mailing, whichever shall first occur.

The addresses for such communications shall be: If to the Company:
Generex Biotechnology Corporation 10102 USA Today Way
Miramar, Florida 33025
Email: jmoscato@nugenerex.com
Attention: Joseph Moscato, CEO

If to the Investor:

Oasis Capital, LLC
208 Ponce de Leon Ave, Suite 1600 San Juan, PR 00918
E-mail:
Attention: Adam Long, Managing Partner

with a copy to (that shall not constitute notice) K&L Gates LLP

200 S. Biscayne Blvd., Suite 3900
Miami, FL 33131
E-mail: john.owens@klgates.com Attention: John D. Owens, III, Esq.

Either party hereto may from time to time change its address or e-mail for notices under this Section 9.1 by giving at least ten (10) days’ prior written notice of such changed address to the other party hereto.

Section 9.2 INDEMNIFICATION. Each party hereto (an “Indemnifying Party”) agrees to indemnify and hold harmless the other party along with its officers, directors, employees, and authorized agents and representatives, and each Person or entity, if any, who controls such party within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act or the rules and regulations thereunder (an “Indemnified Party”) from and against any and all Damages, joint or several, and any and all actions in respect thereof to which the Indemnified Party becomes subject to, resulting from, arising out of or relating to (i) any misrepresentation, breach of warranty or nonfulfillment of or failure to perform any covenant or agreement on the part of the Indemnifying Party contained in this Agreement, (ii) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any registration statement pursuant to the Registration Rights Agreement or any post-effective amendment thereof or supplement thereto, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, (iii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus or contained in the final prospectus (as amended or supplemented, if the Company files any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in the light of the circumstances under which the statements therein were made, not misleading, or (iv) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation under the Securities Act, the Exchange Act or any state securities law, as such Damages are incurred, except to the extent such Damages result primarily from the Indemnified Party’s failure to perform any covenant or agreement contained in this Agreement or the Indemnified Party’s negligence, recklessness, fraud, willful misconduct or bad faith in performing its obligations under this Agreement; provided, however, that the foregoing indemnity agreement shall not apply to any Damages of an Indemnified Party to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made by an Indemnifying Party in reliance upon and in conformity with written information furnished to the Indemnifying Party by the Indemnified Party expressly for use in the Registration Statement, any post- effective amendment thereof or supplement thereto, or any preliminary prospectus or final prospectus (as amended or supplemented).
Section 9.3  **METHOD OF ASSERTING INDEMNIFICATION CLAIMS.** All claims for indemnification by any Indemnified Party under Section 9.1 shall be asserted and resolved as follows:

(a) In the event any claim or demand in respect of which an Indemnified Party might seek indemnity under Section 9.2 is asserted against or sought to be collected from such Indemnified Party by a Person other than a party hereto or an affiliate thereof (a “Third Party Claim”), the Indemnified Party shall deliver a written notification, enclosing a copy of all papers served, if any, and specifying the nature of and basis for such Third Party Claim and for the Indemnified Party’s claim for indemnification that is being asserted under any provision of Section 9.2 against an Indemnifying Party, together with the amount or, if not then reasonably ascertainable, the estimated amount, determined in good faith, of such Third Party Claim (a “Claim Notice”) with reasonable promptness to the Indemnifying Party. If the Indemnified Party fails to provide the Claim Notice with reasonable promptness after the Indemnified Party receives notice of such Third Party Claim, the Indemnifying Party shall not be obligated to indemnify the Indemnified Party with respect to such Third Party Claim to the extent that the Indemnifying Party’s ability to defend has been prejudiced by such failure of the Indemnified Party. The Indemnifying Party shall notify the Indemnified Party as soon as practicable within the period ending thirty (30) calendar days following receipt by the Indemnifying Party of either a Claim Notice or an Indemnity Notice (as defined below) (the “Dispute Period”) whether the Indemnifying Party disputes its liability or the amount of its liability to the Indemnified Party under Section 9.2 and whether the Indemnifying Party desires, at its sole cost and expense, to defend the Indemnified Party against such Third Party Claim.

(i) If the Indemnifying Party notifies the Indemnified Party within the Dispute Period that the Indemnifying Party desires to defend the Indemnified Party with respect to the Third Party Claim pursuant to this Section 9.3(a), then the Indemnifying Party shall have the right to defend, with counsel reasonably satisfactory to the Indemnified Party, at the sole cost and expense of the Indemnifying Party, such Third Party Claim by all appropriate proceedings, which proceedings shall be vigorously and diligently prosecuted by the Indemnifying Party to a final conclusion or will be settled at the discretion of the Indemnifying Party (but only with the consent of the Indemnified Party in the case of any settlement that provides for any relief other than the payment of monetary damages or that provides for the payment of monetary damages as to which the Indemnified Party shall not be indemnified in full pursuant to Section 9.1). The Indemnifying Party shall have full control of such defense and proceedings, including any compromise or settlement thereof; provided, however, that the Indemnified Party may, at the sole cost and expense of the Indemnified Party, at any time prior to the Indemnifying Party’s delivery of the notice referred to in the first sentence of this clause (i), file any motion, answer or other pleadings or take any other action that the Indemnified Party reasonably believes to be necessary or appropriate to protect its interests; and provided, further, that if requested by the Indemnifying Party, the Indemnified Party will, at the sole cost and expense of the Indemnifying Party, provide reasonable cooperation to the Indemnifying Party in contesting any Third Party Claim that the Indemnifying Party elects to contest. The Indemnified Party may participate in, but not control, any defense or settlement of any Third Party Claim controlled by the Indemnifying Party pursuant to this clause (i), and except as provided in the preceding sentence, the Indemnified Party shall bear its own costs and expenses with respect to such participation. Notwithstanding the foregoing, the Indemnified Party may take over the control of the defense or settlement of a Third Party Claim at any time if it irrevocably waives its right to indemnity under Section 9.1 with respect to such Third Party Claim.

(ii) If the Indemnifying Party fails to notify the Indemnified Party within the Dispute Period that the Indemnifying Party desires to defend the Third Party Claim pursuant to this Section 9.3(a), or if the Indemnifying Party gives such notice but fails to prosecute vigorously and diligently or settle the Third Party Claim, or if the Indemnifying Party fails to give any notice whatsoever within the Dispute Period, then the Indemnified Party shall have the right to defend, at the sole cost and expense of the Indemnifying Party, the Third Party Claim by all appropriate proceedings, which proceedings shall be
prosecuted by the Indemnified Party in a reasonable manner and in good faith or will be settled at the discretion of the Indemnified Party (with the consent of the Indemnifying Party, which consent will not be unreasonably withheld). The Indemnified Party will have full control of such defense and proceedings, including any compromise or settlement thereof; provided, however, that if requested by the Indemnified Party, the Indemnifying Party will, at the sole cost and expense of the Indemnifying Party, provide reasonable cooperation to the Indemnified Party and its counsel in contesting any Third Party Claim which the Indemnified Party is contesting. Notwithstanding the foregoing provisions of this clause (ii), if the Indemnifying Party has notified the Indemnified Party within the Dispute Period that the Indemnifying Party disputes its liability or the amount of its liability hereunder to the Indemnified Party with respect to such Third Party Claim and if such dispute is resolved in favor of the Indemnifying Party in the manner provided in clause (iii) below, the Indemnifying Party will not be required to bear the costs and expenses of the Indemnified Party’s defense pursuant to this clause (ii) or of the Indemnifying Party’s participation therein at the Indemnified Party’s request, and the Indemnified Party shall reimburse the Indemnifying Party in full for all reasonable costs and expenses incurred by the Indemnifying Party in connection with such litigation. The Indemnifying Party may participate in, but not control, any defense or settlement controlled by the Indemnified Party pursuant to this clause (ii), and the Indemnifying Party shall bear its own costs and expenses with respect to such participation.

(iii) If the Indemnifying Party notifies the Indemnified Party that it does not dispute its liability or the amount of its liability to the Indemnified Party with respect to the Third Party Claim under Section 9.1 or fails to notify the Indemnified Party within the Dispute Period whether the Indemnifying Party disputes its liability or the amount of its liability to the Indemnified Party with respect to such Third Party Claim, the amount of Damages specified in the Claim Notice shall be conclusively deemed a liability of the Indemnifying Party under Section 9.1 and the Indemnifying Party shall pay the amount of such Damages to the Indemnified Party on demand. If the Indemnifying Party has timely disputed its liability or the amount of its liability with respect to such Third Party Claim, the Indemnifying Party and the Indemnified Party shall proceed in good faith to negotiate a resolution of such dispute; provided, however, that if the dispute is not resolved within thirty (30) days after the Claim Notice, the Indemnifying Party shall be entitled to institute such legal action as it deems appropriate.

(b) In the event any Indemnified Party should have a claim under Section 9.1 against the Indemnifying Party that does not involve a Third Party Claim, the Indemnified Party shall deliver a written notification of a claim for indemnity under Section 9.1 specifying the nature of and basis for such claim, together with the amount or, if not then reasonably ascertainable, the estimated amount, determined in good faith, of such claim (an “Indemnity Notice”) with reasonable promptness to the Indemnifying Party. The failure by any Indemnified Party to give the Indemnity Notice shall not impair such party’s rights hereunder except to the extent that the Indemnifying Party demonstrates that it has been irreparably prejudiced thereby. If the Indemnifying Party notifies the Indemnified Party that it does not dispute the claim or the amount of the claim described in such Indemnity Notice or fails to notify the Indemnified Party within the Dispute Period whether the Indemnifying Party disputes the claim or the amount of the claim described in such Indemnity Notice, the amount of Damages specified in the Indemnity Notice will be conclusively deemed a liability of the Indemnifying Party under Section 9.1 and the Indemnifying Party shall pay the amount of such Damages to the Indemnified Party on demand. If the Indemnifying Party has timely disputed its liability or the amount of its liability with respect to such claim, the Indemnifying Party and the Indemnified Party shall proceed in good faith to negotiate a resolution of such dispute; provided, however, that if the dispute is not resolved within thirty (30) days after the Claim Notice, the Indemnifying Party shall be entitled to institute such legal action as it deems appropriate.

(c) The Indemnifying Party agrees to pay the Indemnified Party, promptly as such expenses are incurred and are due and payable, for any reasonable legal fees or other reasonable expenses incurred by them in connection with investigating or defending any such Claim.
The indemnity provisions contained herein shall be in addition to (i) any cause of action or similar rights of the Indemnified Party against the Indemnifying Party or others, and (ii) any liabilities the Indemnifying Party may be subject to.

ARTICLE X MISCELLANEOUS

Section 10.1 GOVERNING LAW. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Kansas without regard to the principles of conflicts of law (whether of the State of Kansas or any other jurisdiction).

Section 10.2 ARBITRATION. Any disputes, claims, or controversies arising out of or relating to the Transaction Documents, or the transactions, contemplated thereby, or the breach, termination, enforcement, interpretation or validity thereof, including the determination of the scope or applicability of this Agreement to arbitrate, shall be referred to and resolved solely and exclusively by binding arbitration to be conducted before the Judicial Arbitration and Mediation Service ("JAMS"), or its successor pursuant the expedited procedures set forth in the JAMS Comprehensive Arbitration Rules and Procedures (the "Rules"), including Rules 16.1 and 16.2 of those Rules. The arbitration shall be held in New York, New York, before a tribunal consisting of three (3) arbitrators each of whom will be selected in accordance with the “strike and rank” methodology set forth in Rule 15. Either party to this Agreement may, without waiving any remedy under this Agreement, seek from any federal or state court sitting in the State of Kansas any interim or provisional relief that is necessary to protect the rights or property of that party, pending the establishment of the arbitral tribunal. The costs and expenses of such arbitration shall be paid by and be the sole responsibility of the Company, including but not limited to the Investor’s attorneys’ fees and each arbitrator’s fees. The arbitrators’ decision must set forth a reasoned basis for any award of damages or finding of liability. The arbitrators’ decision and award will be made and delivered as soon as reasonably possible and in any case within sixty (60) days following the conclusion of the arbitration hearing and shall be final and binding on the parties and may be entered by any court having jurisdiction thereof.

Section 10.3 JURY TRIAL WAIVER. THE COMPANY AND THE INVESTOR HEREBY WAIVE A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER IN RESPECT OF ANY MATTER ARISING OUT OF OR IN CONNECTION WITH THE TRANSACTION DOCUMENTS.

Section 10.4 ASSIGNMENT. This Agreement shall be binding upon and inure to the benefit of the Company and the Investor and their respective successors. Neither this Agreement nor any rights of the Investor or the Company hereunder may be assigned by either party to any other Person.

Section 10.5 NO THIRD PARTY BENEFICIARIES. This Agreement is intended for the benefit of the Company and the Investor and their respective successors, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as set forth in Article IX.

Section 10.6 TERMINATION. The Company may terminate this Agreement at any time by written notice to the Investor, except while the Investor holds any of the Put Shares. In addition, this Agreement shall automatically terminate on the earlier of (i) the end of the Commitment Period; (ii) the date that the Company sells and the Investor purchases the Maximum Commitment Amount; or (iii) the date in which the Registration Statement is no longer effective, or (iv) the date that, pursuant to or within the meaning of any Bankruptcy Law, the Company commences a voluntary case or any Person commences a proceeding against the Company, a Custodian is appointed for the Company or for all or substantially all of its property or the Company makes a general assignment for the benefit of its creditors; provided.
however, that the provisions of Articles III, IV, V, VI, IX and the agreements and covenants of the Company and the Investor set forth in Article X shall survive the termination of this Agreement for the maximum length of time allowed under applicable law.

Section 10.7 ENTIRE AGREEMENT. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the Company and the Investor with respect to the matters covered herein and therein and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

Section 10.8 FEES AND EXPENSES. Except as expressly set forth in the Transaction Documents or any other writing to the contrary, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all Transfer Agent fees, stamp taxes and other taxes and duties levied in connection with the delivery of any Securities to the Investor. The Investor shall withhold $15,000.00 from the Investment Amount with respect to the first Put under this Agreement for reimbursement of the Investor’s expenses relating to the preparation of the Transaction Documents.

Section 10.9 COUNTERPARTS. This Agreement may be executed in multiple counterparts, each of which may be executed by less than all of the parties and shall be deemed to be an original instrument which shall be enforceable against the parties actually executing such counterparts and all of which together shall constitute one and the same instrument. This Agreement may be delivered to the other parties hereto by e-mail of a copy of this Agreement bearing the signature of the parties so delivering this Agreement.

Section 10.10 SEVERABILITY. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision; provided that such severability shall be ineffective if it materially changes the economic benefit of this Agreement to any party.

Section 10.11 FURTHER ASSURANCES. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

Section 10.12 NO STRICT CONSTRUCTION. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

Section 10.13 EQUITABLE RELIEF. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Investor by vitiating the intent and purpose of the transaction contemplated hereby. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Agreement will be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Agreement, that the Investor shall be entitled, in addition to all other available remedies at law or in equity, and in addition to the penalties assessable
herein, to an injunction or injunctions restraining, preventing or curing any breach of this Agreement and to enforce specifically the terms and provisions hereof, without the necessity of showing economic loss and without any bond or other security being required.

Section 10.14 TITLE AND SUBTITLES. The titles and subtitles used in this Agreement are used for the convenience of reference and are not to be considered in construing or interpreting this Agreement.

Section 10.15 AMENDMENTS; WAIVERS. No provision of this Agreement may be amended or waived by the parties from and after the date that is one (1) Trading Day immediately preceding the initial filing of the Registration Statement with the SEC. Subject to the immediately preceding sentence, (i) no provision of this Agreement may be amended other than by a written instrument signed by both parties hereto and (ii) no provision of this Agreement may be waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. No failure or delay in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

Section 10.16 PUBLICITY. The Company and the Investor shall consult with each other in issuing any press releases or otherwise making public statements with respect to the transactions contemplated hereby and no party shall issue any such press release or otherwise make any such public statement, other than as required by law, without the prior written consent of the other parties, which consent shall not be unreasonably withheld or delayed, except that no prior consent shall be required if such disclosure is required by law, in which such case the disclosing party shall provide the other party with prior notice of such public statement. Notwithstanding the foregoing, the Company shall not publicly disclose the name of the Investor without the prior written consent of the Investor, except to the extent required by law. The Investor acknowledges that this Agreement and all or part of the Transaction Documents may be deemed to be “material contracts,” as that term is defined by Item 601(b)(10) of Regulation S-K, and that the Company may therefore be required to file such documents as exhibits to reports or registration statements filed under the Securities Act or the Exchange Act. The Investor further agrees that the status of such documents and materials as material contracts shall be determined solely by the Company, in consultation with its counsel.
IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by their respective officers thereunto duly authorized as of the Execution Date.

GENEREX BIOTECHNOLOGY CORPORATION

By: /s/ Joseph Moscato
Name: Joseph Moscato
Title: Chief Executive Officer

OASIS CAPITAL, LLC

By: /s/ Adam Long
Name: Adam Long
Title: Managing Member

** Signature Page to Equity Purchase Agreement **
EXHIBIT A FORM OF PUT NOTICE

TO: OASIS CAPITAL, LLC
DATE:

We refer to the Equity Purchase Agreement, dated December 6, 2019 (the “Agreement”), entered into by and between Generex Biotechnology Corporation and you. Capitalized terms defined in the Agreement shall, unless otherwise defined herein, have the same meaning when used herein.

We hereby:

1) Give you notice that we require you to purchase Put Shares; and

2) The purchase price per share, pursuant to the terms of the Agreement, is ; and

3) Certify that, as of the date hereof, the conditions set forth in Section 7.2 of the Agreement are satisfied.

GENEREX BIOTECHNOLOGY CORPORATION

By:
Name: Joseph Moscato
Title: Chief Executive Officer
Pursuant to Section 7.2(k) of that certain equity purchase agreement, dated December 6, 2019 (the “Agreement”), by and between Generex Biotechnology Corporation (the “Company”) and Oasis Capital, LLC (the “Investor”), the undersigned, in his capacity as Chief Executive Officer of the Company, and not in his individual capacity, hereby certifies, as of the date hereof (such date, the “Condition Satisfaction Date”), the following:

1. The representations and warranties of the Company are true and correct in all material respects as of the Condition Satisfaction Date as though made on the Condition Satisfaction Date (except for representations and warranties specifically made as of a particular date) with respect to all periods, and as to all events and circumstances occurring or existing to and including the Condition Satisfaction Date, except for any conditions which have temporarily caused any representations or warranties of the Company set forth in the Agreement to be incorrect and which have been corrected with no continuing impairment to the Company or the Investor; and

2. All of the conditions precedent to the obligation of the Investor to purchase Put Shares set forth in the Agreement, including but not limited to Section 7.2 of the Agreement, have been satisfied as of the Condition Satisfaction Date.

IN WITNESS WHEREOF, the undersigned has hereunto affixed his hand as of December 6, 2019.

GENEREX BIOTECHNOLOGY CORPORATION

By:
Name: Joseph Moscato
Title: Chief Executive Officer
REGISTRATION RIGHTS AGREEMENT

REGISTRATION RIGHTS AGREEMENT (this “Agreement”), dated as of November 25, 2019 (the “Execution Date”), is entered into by and between GENEREX BIOTECHNOLOGY CORPORATION, a Delaware corporation (the “Company”), and OASIS CAPITAL, LLC, a Puerto Rico limited liability company (together with its permitted assigns, the “Buyer”). Capitalized terms used herein and not otherwise defined herein shall have the respective meanings set forth in that certain Equity Purchase Agreement by and between the parties hereto, dated as of the Execution Date (as amended, restated, supplemented or otherwise modified from time to time, the “Purchase Agreement”).

WHEREAS:

The Company has agreed, upon the terms and subject to the conditions of the Purchase Agreement, to sell to the Buyer up to Forty Million Dollars ($40,000,000.00) of Put Shares, and to induce the Buyer to enter into the Purchase Agreement, the Company has agreed to provide certain registration rights under the Securities Act of 1933, as amended, and the rules and regulations thereunder, or any similar successor statute (collectively, the “Securities Act”), and applicable state securities laws.

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Buyer hereby agree as follows:

1. DEFINITIONS.

As used in this Agreement, the following terms shall have the following meanings:

a. “Investor” means the Buyer, any transferee or assignee thereof to whom the Buyer assigns its rights under this Agreement in accordance with Section 9 and who agrees to become bound by the provisions of this Agreement, and any transferee or assignee thereof to whom a transferee or assignee assigns its rights under this Agreement in accordance with Section 9 and who agrees to become bound by the provisions of this Agreement.

b. “Person” means any individual or entity including but not limited to any corporation, a limited liability company, an association, a partnership, an organization, a business, an individual, a governmental or political subdivision thereof or a governmental agency.

c. “Register,” “Registered,” and “Registration” refer to a registration effected by preparing and filing one or more registration statements of the Company in compliance with the Securities Act and/or pursuant to Rule 415 under the Securities Act or any successor rule providing for the offering of securities on a continuous basis (“Rule 415”), and the declaration or ordering of effectiveness of such registration statement(s) by the United States Securities and Exchange Commission (the “SEC”).

d. “Registrable Securities” means all of the (i) Commitment Shares, (ii) Put Shares which have been, or which may, from time to time be issued, including without limitation...
all of the shares of Common Stock which have been issued or will be issued to the Investor under the Purchase Agreement (without regard to any limitation or restriction on purchases), (iii) any and all shares of capital stock issued or issuable with respect to each of the Transaction Documents, and (iv) any and all shares of capital stock issued or issuable with respect to the Put Shares, Commitment Shares and the Purchase Agreement as a result of any stock split, stock dividend, recapitalization, exchange or similar event or otherwise, without regard to any limitation on purchases under the Purchase Agreement.

c. “Registration Statement” means one or more registration statements of the Company on Form S-1 covering only the resale of the Registrable Securities including the Initial Registration Statement and any New Registration Statement or Other Registration Statement (each as defined herein).

2. **REGISTRATION.**

a. **Mandatory Registration.** The Company shall, by January 10, 2020, file with the SEC an initial Registration Statement on Form S-1 covering the maximum number of Registrable Securities as shall be permitted to be included thereon in accordance with applicable SEC rules, regulations and interpretations so as to permit the resale of such Registrable Securities by the Investor, including but not limited to under Rule 415 under the Securities Act at then prevailing market prices (and not fixed prices), as mutually determined by both the Company and the Investor in consultation with their respective legal counsel (the “Initial Registration Statement”). The Initial Registration Statement shall register only Registrable Securities. The Company shall use its best efforts to have the Initial Registration Statement and any amendment thereto declared effective by the SEC at the earliest possible date (in any event, within ninety (90) calendar days after the Execution Date).

h. **Rule 424 Prospectus.** In addition to the Initial Registration Statement, the Company shall, as required by applicable securities regulations, from time to time file with the SEC, pursuant to Rule 424 promulgated under the Securities Act, such prospectuses and prospectus supplements, if any, to be used in connection with sales of the Registrable Securities under each Registration Statement. The Investor and its counsel shall have a reasonable opportunity to review and comment upon such prospectuses prior to its filing with the SEC, and the Company shall give due consideration to all such comments. The Investor shall use its reasonable best efforts to comment upon any prospectus within two (2) business days from the date the Investor receives the final pre-filing version of such prospectus.

c. **Sufficient Number of Shares Registered.** In the event the number of shares available under the Initial Registration Statement is insufficient to cover all of the Registrable Securities, the Company shall amend the Initial Registration Statement or file a new Registration Statement (a “New Registration Statement”), so as to cover all of such Registrable Securities (subject to the limitations set forth in Section 7(c)) as soon as practicable, but in any event not later than fifteen (15) business days after the necessity therefor arises, subject to any limits that may be imposed by the SEC pursuant to Rule 415 under the Securities Act. The Company shall use its reasonable best efforts to cause such amendment and/or New Registration Statement to become effective as soon as practicable following the filing thereof. In the event that any of the Registrable Securities are not included in the Initial Registration Statement, or have not been
d. Effectiveness. The Investor and its counsel shall have a reasonable opportunity to review and comment upon any Registration Statement and any amendment or supplement to such Registration Statement and any related prospectus prior to its filing with the SEC, and the Company shall give due consideration to all reasonable comments. The Investor shall furnish all information reasonably requested by the Company for inclusion therein. The Company shall use reasonable best efforts to keep all Registration Statements effective, including but not limited to pursuant to Rule 415 promulgated under the Securities Act and available for the resale by the Investor of all of the Registrable Securities covered thereby at all times until the earlier of (i) the date as of which the Investor may sell all of the Registrable Securities without restriction pursuant to Rule 144 promulgated under the Securities Act without any restrictions (including any restrictions under Rule 144(c) or Rule 144(i)) and (ii) the date on which the Investor shall have sold all the Registrable Securities covered thereby and no Put Shares remain issuable under the Purchase Agreement (the "Registration Period"). In the event that any Registration Statement filed hereunder is no longer effective and Rule 144 is available for sales of the Registrable Securities, the Company shall provide an opinion upon request of the Investor that the Investor may sell any such Registrable Securities held by the Investor pursuant to Rule 144 with all costs related to such opinion to be borne by the Company. Each Registration Statement (including any amendments or supplements thereto and prospectuses contained therein) shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading.

e. Offering. If the staff of the SEC (the "Staff") or the SEC seeks to characterize any offering pursuant to a Registration Statement filed pursuant to this Agreement as constituting an offering of securities that does not permit such Registration Statement to become or remain effective and be used for resales by the Investor under Rule 415 at then-prevailing market prices (and not fixed prices) by comment letter or otherwise, or if after the filing of the Initial Registration Statement with the SEC pursuant to Section 2(a), the Company is otherwise required by the Staff or the SEC to reduce the number of Registrable Securities included in such initial Registration Statement, then the Company shall reduce the number of Registrable Securities to be included in such Initial Registration Statement (with the prior consent, which shall not be unreasonably withheld, of the Investor and its legal counsel as to the specific Registrable Securities to be removed therefrom) until such time as the Staff and the SEC shall so permit such Registration Statement to become effective and be used as aforesaid. In the event of any reduction in Registrable Securities pursuant to this paragraph, the Company shall file one or more New Registration Statements in accordance with Section 2(c) until such time as all Registrable Securities have been included in Registration Statements that have been declared included in any New Registration Statement, and the Company files any other registration statement under the Securities Act (other than Form S-4, Form S-8, or with respect to other employee related plans or rights offerings) (an "Other Registration Statement"), then the Company shall include in such Other Registration Statement first all of such Registrable Securities that have not been previously Registered, and second any other securities the Company wishes to include in such Other Registration Statement. The Company agrees that it shall not file any such Other Registration Statement unless all of the Registrable Securities have been included in such Other Registration Statement or otherwise have been Registered for resale as described above.
3. RELATED OBLIGATIONS.

With respect to a Registration Statement and whenever any Registrable Securities are to be Registered pursuant to Section 2, including on any Other Registration Statement, the Company shall use its reasonable best efforts to effect the registration of the Registrable Securities in accordance with the intended method of disposition thereof and, pursuant thereto, the Company shall have the following obligations:

a. The Company shall prepare and file with the SEC such amendments (including post-effective amendments on Form S-1) and supplements to any Registration Statement and any Other Registration Statement and the prospectus used in connection with such Registration Statement and Other Registration Statement, which prospectus is to be filed pursuant to Rule 424 promulgated under the Securities Act, as may be necessary to keep the Registration Statement effective at all times during the Registration Period, and, during such period, comply with the provisions of the Securities Act with respect to the disposition of all Registrable Securities of the Company covered by the Registration Statement or applicable Other Registration Statement until such time as all of such Registrable Securities shall have been disposed of in accordance with the intended methods of disposition by the seller or sellers thereof as set forth in such registration statement.

b. The Company shall permit the Investor to review and comment upon each Registration Statement or any Other Registration Statement and all amendments and supplements thereto at least two (2) business days prior to their filing with the SEC, and not file any document in a form to which Investor reasonably objects. The Investor shall use its reasonable best efforts to comment upon the Registration Statement or any Other Registration Statement and any amendments or supplements thereto within two (2) business days from the date the Investor receives the final version thereof. The Company shall furnish to the Investor, without charge, and within three (3) Business Day, any comments and/or any other correspondence from the SEC or the Staff to the Company or its representatives relating to the Registration Statement or any Other Registration Statement. The Company shall respond to the SEC or the Staff, as applicable, regarding the resolution of any such comments and/or correspondence as promptly as practicable and in any event within two weeks upon receipt thereof.

c. Upon request of the Investor, the Company shall furnish to the Investor, (i) promptly after the same is prepared and filed with the SEC, at least one copy of such Registration Statement and any amendment(s) thereto, including financial statements and schedules, all documents incorporated therein by reference and all exhibits, (ii) upon the effectiveness of any Registration Statement, a copy of the prospectus included in such Registration Statement and all amendments and supplements thereto (or such other number of copies as the Investor may reasonably request) and (iii) such other documents, including copies
of any preliminary or final prospectus, as the Investor may reasonably request from time to time in order to facilitate the disposition of the Registrable Securities owned by the Investor. For the avoidance of doubt, any filing available to the Investor via the SEC’s live EDGAR system shall be deemed “furnished to the Investor” hereunder.

d. The Company shall use reasonable best efforts to (i) register and qualify the Registrable Securities covered by a Registration Statement under such other securities or “blue sky” laws of Puerto Rico, Kansas, Florida and such other jurisdictions in the United States as the Investor reasonably requests, (ii) prepare and file in those jurisdictions, such amendments (including post-effective amendments) and supplements to such registrations and qualifications as may be necessary to maintain the effectiveness thereof during the Registration Period, (iii) take such other actions as may be necessary to maintain such registrations and qualifications in effect at all times during the Registration Period, and (iv) take all other actions reasonably necessary or advisable to qualify the Registrable Securities for sale in such jurisdictions; provided, however, that the Company shall not be required in connection therewith or as a condition thereto (x) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(d), (y) subject itself to general taxation in any such jurisdiction, or (z) file a general consent to service of process in any such jurisdiction. The Company shall promptly notify the Investor who holds Registrable Securities of the receipt by the Company of any notification with respect to the suspension of the registration or qualification of any of the Registrable Securities for sale under the securities or “blue sky” laws of any jurisdiction in the United States or its receipt of actual notice of the initiation or threatening of any proceeding for such purpose.

c. As promptly as practicable after becoming aware of such event or facts, the Company shall notify the Investor in writing of the happening of any event or existence of such facts as a result of which the prospectus included in any Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and promptly prepare a supplement or amendment to such Registration Statement to correct such untrue statement or omission, and deliver a copy of such supplement or amendment to the Investor (or such other number of copies as the Investor may reasonably request). The Company shall also promptly notify the Investor in writing (i) when a prospectus or any prospectus supplement or post-effective amendment has been filed, and when a Registration Statement or any post-effective amendment thereto has become effective (notification of such effectiveness shall be delivered to the Investor by email or facsimile on the same day of such effectiveness and by overnight mail), (ii) of any request by the SEC for amendments or supplements to any Registration Statement or related prospectus or related information, and (iii) of the Company’s reasonable determination that a post-effective amendment to a Registration Statement would be appropriate.

f. The Company shall use its reasonable best efforts to prevent the issuance of any stop order or other suspension of effectiveness of any registration statement, or the suspension of the qualification of any Registrable Securities for sale in any jurisdiction and, if such an order or suspension is issued, to obtain the withdrawal of such order or suspension at the earliest possible moment and to notify the Investor of the issuance of such order and the resolution thereof or its receipt of actual notice of the initiation or threat of any proceeding for
such purpose. In addition, if the Company shall receive any comment letter from the SEC relating to any Registration Statement under which Registrable Securities are Registered, the Company shall notify the Investor of the issuance of such order and use its best efforts to address such comments in a manner satisfactory to the SEC.


h. The Company shall cooperate with the Investor to facilitate the timely preparation and delivery of DWAC Shares representing the Registrable Securities to be offered pursuant to any Registration Statement. “DWAC Shares” means shares of Common Stock that are (i) issued in electronic form, (ii) freely tradable and transferable without restriction on resale and (iii) timely credited by the Company to the Investor’s or its designee’s specified DWAC account with The Depository Trust Company (“DTC”) under the DTC/FAST Program, or any similar program hereafter adopted by DTC performing substantially the same function.


i. The Company shall at all times maintain the services of its Transfer Agent and registrar with respect to its Common Stock.


j. If reasonably requested by the Investor, the Company shall (i) immediately incorporate in a prospectus supplement or post-effective amendment such information as the Investor believes should be included therein relating to the sale and distribution of Registrable Securities, including, without limitation, information with respect to the number of Registrable Securities being sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities; (ii) make all required filings of such prospectus supplement or post-effective amendment as soon as practicable upon notification of the matters to be incorporated in such prospectus supplement or post-effective amendment; and (iii) supplement or make amendments to any Registration Statement.


k. The Company shall use its reasonable best efforts to cause the Registrable Securities covered by any Registration Statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to consummate the disposition of such Registrable Securities.


l. Within five (5) Business Day after any Registration Statement which includes Registrable Securities is ordered effective by the SEC, or any prospectus supplement or post-effective amendment including Registrable Securities is filed with the SEC, the Company shall deliver, and shall cause legal counsel for the Company to deliver, to the Transfer Agent for such Registrable Securities (with copies to the Investor) confirmation that such Registration Statement has been declared effective by the SEC in the form attached hereto as Exhibit A. Thereafter, if requested by the Investor at any time, the Company shall require its counsel to deliver to the Investor a written confirmation whether or not (i) the effectiveness of such Registration Statement has lapsed at any time for any reason (including, without limitation, the
m. The Company shall take all other reasonable actions necessary to expedite and facilitate disposition by the Investor of Registrable Securities pursuant to any Registration Statement.

4. OBLIGATIONS OF THE INVESTOR.

a. The Company shall notify the Investor in writing of the information the Company reasonably requires from the Investor in connection with any Registration Statement hereunder. The Investor shall furnish to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request. Notwithstanding the foregoing, the Registration Statement shall contain the “Selling Stockholder” and “Plan of Distribution” sections, each in substantially the form provided to the Company by the Investor.

b. The Investor agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of any Registration Statement hereunder.

c. The Investor agrees that, upon receipt of any notice from the Company of the happening of any event or existence of facts of the kind described in Section 3(f) or the first sentence of Section 3(e), the Investor will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement(s) covering such Registrable Securities until withdrawal of a stop order contemplated by Section 3(f) or the Investor’s receipt of the copies of the supplemented or amended prospectus contemplated by Section 3(e). Notwithstanding anything to the contrary, the Company shall cause its Transfer Agent to promptly issue DWAC Shares in accordance with the terms of the Purchase Agreement in connection with any sale of Registrable Securities with respect to which an Investor has entered into a contract for sale prior to the Investor’s receipt of a notice from the Company of the happening of any event of the kind described in Section 3(f) or the first sentence of Section 3(e) and for which the Investor has not yet settled.

5. EXPENSES OF REGISTRATION.

All reasonable expenses, other than sales or brokerage commissions, incurred in connection with registrations, filings or qualifications pursuant to Sections 2 and 3, including, without limitation, all registration, listing and qualifications fees, printers and accounting fees, and fees and disbursements of counsel for the Company, shall be paid by the Company.

6. INDEMNIFICATION.

a. To the fullest extent permitted by law, the Company will, and hereby does, indemnify, hold harmless and defend the Investor, each Person, if any, who controls or is under
common control with the Investor, the members, the directors, officers, partners, employees, agents, representatives of the Investor and each Person, if any, who is an “affiliate” of the Investor within the meaning of the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”) (each, an “Indemnified Person”), against any losses, claims, damages, liabilities, judgments, fines, penalties, charges, costs, attorneys’ fees, amounts paid in settlement or expenses, joint or several, (collectively, “Claims”) incurred in investigating, preparing or defending any action, claim, suit, inquiry, proceeding, investigation or appeal taken from the foregoing by or before any court or governmental, administrative or other regulatory agency, body or the SEC, whether pending or threatened, whether or not an Indemnified Person is or may be a party thereto (“Indemnified Damages”), to which any of them may become subject insofar as such Claims (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in a Registration Statement, any Other Registration Statement or any post-effective amendment thereto or in any filing made in connection with the qualification of the offering under the securities or other “blue sky” laws of any jurisdiction in which Registrable Securities are offered (“Blue Sky Filing”), or the omission or alleged omission to state a material fact contained in the final prospectus (as amended or supplemented, if the Company files any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements therein not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in the final prospectus, in light of the circumstances under which the statements therein were made, not misleading, (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the Registrable Securities pursuant to a Registration Statement or any Other Registration Statement or (iv) any material violation by the Company of this Agreement (the matters in the foregoing clauses (i) through (iv) being, collectively, “Violations”). The Company shall reimburse each Indemnified Person promptly as such expenses are incurred and are due and payable, for any reasonable legal fees or other reasonable expenses incurred by them in connection with investigating or defending any such Claim. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this Section 6(a): (i) shall not apply to a Claim by an Indemnified Person arising out of or based upon a Violation which occurs in reliance upon and in conformity with information about the Investor furnished in writing to the Company by such Indemnified Person expressly for use in connection with the preparation of a Registration Statement, any Other Registration Statement or any such amendment thereof or supplement thereto, if such prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e), (ii) with respect to any superseded prospectus, shall not inure to the benefit of any such person from whom the person asserting any such Claim purchased the Registrable Securities that are the subject thereof (or to the benefit of any person controlling such person) if the untrue statement or omission of material fact contained in the superseded prospectus was corrected in the revised prospectus, as then amended or supplemented, if such revised prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e), and the Indemnified Person was promptly advised in writing not to use the incorrect prospectus prior to the use giving rise to a violation and such Indemnified Person, notwithstanding such advice, used it; (iii) shall not be available to the extent such Claim is based on a failure of the Investor to deliver or to cause to be delivered the prospectus made
available by the Company, if such prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e); and (iv) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of the Indemnified Person and shall survive the transfer of the Registrable Securities by the Investor pursuant to Section 9.

h Promptly after receipt by an Indemnified Person under this Section 6 of notice of the commencement of any action or proceeding (including any governmental action or proceeding) involving a Claim, such Indemnified Person shall, if a Claim in respect thereof is to be made against the Company under this Section 6, deliver to the Company a written notice of the commencement thereof, and the Company shall have the right to participate in, and, to the extent the Company so desires, to assume control of the defense thereof with counsel mutually satisfactory to the Company and to the Indemnified Person; provided, however, that an Indemnified Person shall have the right to retain its own counsel with the fees and expenses to be paid by the Company, if, in the reasonable opinion of counsel retained by the Company, the representation by such counsel of the Indemnified Person and the Company would be inappropriate due to actual or potential differing interests between such Indemnified Person and any other party represented by such counsel in such proceeding. The Indemnified Person shall cooperate fully with the Company in connection with any negotiation or defense of any such action or Claim by the Company and shall furnish to the Company all information reasonably available to the Indemnified Person which relates to such action or Claim. The indemnifying party shall keep the Indemnified Person fully apprised at all times as to the status of the defense or any settlement negotiations with respect thereto. The Company shall not be liable for any settlement of any action, Claim or proceeding effectuated without its written consent, provided, however, that the Company shall not unreasonably withhold, delay or condition its consent. The Company shall not, without the consent of the Indemnified Person, consent to entry of any judgment or enter into any settlement or other compromise which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Person of a release from all liability in respect to such Claim or litigation. Following indemnification as provided for hereunder, the Company shall be subrogated to all rights of the Indemnified Person with respect to all third parties, firms or corporations relating to the matter for which indemnification has been made. The failure to deliver written notice to the Company within a reasonable time of the commencement of any such action shall not relieve the Company of any liability to the Indemnified Person under this Section 6, except to the extent that the Company is prejudiced in its ability to defend such action.

c The indemnification required by this Section 6 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or Indemnified Damages are incurred.

d The indemnity agreements contained herein shall be in addition to (i) any cause of action or similar right of the Indemnified Person against the Company or others, and (ii) any liabilities the Company may be subject to pursuant to the law.

7. CONTRIBUTION.
To the extent any indemnification by the Company is prohibited or limited by law, the Company agrees to make the maximum contribution with respect to any amounts for which it would otherwise be liable under Section 6 to the fullest extent permitted by law; provided, however, that: (i) no seller of Registrable Securities guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any seller of Registrable Securities who was not guilty of fraudulent misrepresentation; and (ii) contribution by any seller of Registrable Securities shall be limited to $100,000.00.

8. REPORTS AND DISCLOSURE UNDER THE SECURITIES ACTS.

With a view to making available to the Investor the benefits of Rule 144 promulgated under the Securities Act or any other similar rule or regulation of the SEC that may at any time permit the Investor to sell securities of the Company to the public without registration (“Rule 144”), the Company agrees, at the Company’s sole expense, to:

a. make and keep "current public information” available, as such term is understood and defined in Rule 144;

b. file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act;

c. furnish to the Investor so long as the Investor owns Registrable Securities, promptly upon request, (i) a written statement by the Company that it has complied with the reporting and or disclosure provisions of Rule 144, the Securities Act and the Exchange Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested to permit the Investor to sell such securities pursuant to Rule 144 without registration; and

d. take such additional action as is requested by the Investor to enable the Investor to sell the Registrable Securities pursuant to Rule 144, including, without limitation, delivering all such legal opinions, consents, certificates, resolutions and instructions to the Company’s Transfer Agent as may be requested from time to time by the Investor at the Company’s expense and otherwise fully cooperate with Investor and Investor’s broker to effect such sale of securities pursuant to Rule 144.

The Company agrees that damages may be an inadequate remedy for any breach of the terms and provisions of this Section 8 and that Investor shall, whether or not it is pursuing any remedies at law, be entitled to equitable relief in the form of a preliminary or permanent injunctions, without having to post any bond or other security, upon any breach or threatened breach of any such terms or provisions.

9. ASSIGNMENT OF REGISTRATION RIGHTS.

The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Buyer, or any Investor as assignee pursuant to
this Section 9. The Buyer, or any Investor, may not assign its rights under this Agreement without the written consent of the Company other than to an affiliate of such Investor.

10. **AMENDMENT OF REGISTRATION RIGHTS.**

   No provision of this Agreement may be (i) amended other than by a written instrument signed by both parties hereto or (ii) waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, shall not operate as a waiver thereof.

11. **MISCELLANEOUS.**

   a. A Person is deemed to be a holder of Registrable Securities whenever such Person owns or is deemed to own of record such Registrable Securities. If the Company receives conflicting instructions, notices or elections from two or more Persons with respect to the same Registrable Securities, the Company shall act upon the basis of instructions, notice or election received from the registered owner of such Registrable Securities.

   b. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by email (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one (1) Business Day after deposit with a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses for such communications shall be:

   If to the Company:

   Generex Biotechnology Corporation 10102 USA Today Way
   Miramar, Florida 33025
   Email: jmoscato@nugenerex.com
   Attention: Joseph Moscato, Chief Executive Officer

   If to the Investor:

   Oasis Capital, LLC
   208 Ponce de Leon Ave, Suite 1600 San Juan, PR 00918
   E-mail
   Attention: Adam Long, Managing Partner
   Phone:

   with a copy to (that shall not constitute notice) K&L Gates LLP
   200 S. Biscayne Blvd., Suite 3900

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or at such other address and/or email address and/or to the attention of such other person as the recipient party has specified by written notice given to each other party three (3) business days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender’s email account containing the time, date, recipient email address, as applicable, and an image of the first page of such transmission or (C) provided by a nationally recognized overnight delivery service, shall be rebuttable evidence of personal service, receipt by email or receipt from a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

   c. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of Kansas, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Kansas or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Kansas.

   d. Any disputes, claims, or controversies hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein shall be referred to and resolved solely and exclusively by binding arbitration to be conducted before the Judicial Arbitration and Mediation Service ("JAMS"), or its successor pursuant the expedited procedures set forth in the JAMS Comprehensive Arbitration Rules and Procedures (the "Rules"), including Rules 16.1 and 16.2 of those Rules. The arbitration shall be held in New York, New York, before a tribunal consisting of three (3) arbitrators each of whom will be selected in accordance with the "strike and rank" methodology set forth in Rule 15. Either party to this Agreement may, without waiving any remedy under this Agreement, seek from any federal or state court sitting in the State of Kansas any interim or provisional relief that is necessary to protect the rights or property of that party, pending the establishment of the arbitral tribunal. The costs and expenses of such arbitration shall be paid by and be the sole responsibility of the Company, including but not limited to the Holder’s attorneys’ fees and each arbitrator’s fees. The arbitrators' decision must set forth a reasoned basis for any award of damages or finding of liability. The arbitrators' decision and award will be made and delivered as soon as reasonably possible and in any case within sixty (60) days following the conclusion of the arbitration hearing and shall be final and binding on the parties and may be entered by any court having jurisdiction thereof.

   e. If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction.

   EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION
g. This Agreement and the Purchase Agreement constitute the entire agreement among the parties hereto with respect to the subject matter hereof and thereof. There are no restrictions, promises, warranties or undertakings, other than those set forth or referred to herein and therein. This Agreement and the Purchase Agreement supersede all prior agreements and understandings among the parties hereto with respect to the subject matter hereof and thereof.

h. Subject to the requirements of Section 9, this Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties hereto.

i. The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof.

j. This Agreement may be executed in identical counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement. This Agreement, once executed by a party, may be delivered to the other party hereto by facsimile transmission or by e-mail in a “.pdf” format data file of a copy of this Agreement bearing the signature of the party so delivering this Agreement.

k. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

l. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent and no rules of strict construction will be applied against any party.

m. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.
IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the Execution Date.

THE COMPANY:

GENEREX BIOTECHNOLOGY CORPORATION

By: /s/ Joseph Moscato
Name: Joseph Moscato
Title: Chief Executive Officer

THE BUYER:

OASIS CAPITAL, LLC

By: /s/ Adam Long
Name: Adam Long
Title: Managing Member
November 25th, 2019

Broadridge Financial Solutions, Inc. 51 51 Mercedes Way
Edgewood, NY 11717

Re: EFFECTIVENESS OF REGISTRATION STATEMENT

Ladies and Gentlemen:

We are counsel to GENEREX BIOTECHNOLOGY CORPORATION, a Delaware corporation (the “Company”), and have represented the Company in connection with that certain Equity Purchase Agreement, dated as of November 25th, 2019 (the “Purchase Agreement”), entered into by and between the Company and Oasis Capital, LLC (the “Buyer”) pursuant to which the Company has agreed to issue to the Buyer shares of the Company’s Common Stock, $0.001 par value (the “Common Stock”), in an amount up to Forty Million Dollars ($40,000,000.00) (the “Put Shares”), in accordance with the terms of the Purchase Agreement. In connection with the transactions contemplated by the Purchase Agreement, the Company has registered with the U.S. Securities & Exchange Commission the following shares of Common Stock:

(1) Put Shares to be issued to the Buyer upon purchase from the Company by the Buyer from time to time in accordance with the Purchase Agreement; and

(2) 1,228,501 Commitment Shares which were issued to the Buyer pursuant to the Purchase Agreement.

Pursuant to the Purchase Agreement, the Company also has entered into a Registration Rights Agreement, of even date with the Purchase Agreement with the Buyer (the “Registration Rights Agreement”) pursuant to which the Company agreed, among other things, to register the Put Shares and the Commitment Shares under the Securities Act of 1933, as amended (the “Securities Act”). In connection with the Company’s obligations under the Purchase Agreement and the Registration Rights Agreement, on November 25th, 2019, the Company filed a Registration Statement (File No. 333-) (the “Registration Statement”) with the Securities and Exchange Commission (the “SEC”) relating to the resale of the Put Shares and the Commitment Shares.

In connection with the foregoing, we advise you that a member of the SEC’s staff has advised us by telephone that the SEC has entered an order declaring the Registration Statement effective under the Securities Act at [A.M./P.M.] on November 25th, 2019 and we have no knowledge, after telephonic inquiry of a member of the SEC’s staff, that any stop order suspending its effectiveness has been issued or that any proceedings for that purpose are pending.

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before, or threatened by, the SEC and the Put Shares are available for resale under the Securities Act pursuant to the Registration Statement and may be issued without any restrictive legend.

Very truly yours,
[Company Counsel]

By:

cc: Oasis Capital, LLC
This Purchase Agreement ("Agreement") is made and entered into on December 9, 2019 ("Effective Date"), by and between Generex Biotechnology Corporation, a Delaware corporation ("Company"), and the investor whose name appears on the signature page hereto ("Investor").

Recitals

A. The parties desire that, upon the terms and subject to the conditions herein, Investor will purchase for $2,000,000.00 shares of Common Stock and a Promissory Note that may become convertible into Common Stock; and

B. The offer and sale provided for herein are being made pursuant to the exemptions from registration under Section 4(a)(2) of the Act as a transaction by an issuer not involving any public offering, and as a private placement pursuant to Rule 506 of Regulation D.

Agreement

In consideration of the foregoing, the receipt and adequacy of which are hereby acknowledged, Company and Investor agree as follows:

I. Definitions. In addition to the terms defined elsewhere in this Agreement and the Transaction Documents, capitalized terms that are not otherwise defined have the meanings set forth in the Glossary of Defined Terms attached hereto as Exhibit 1.

II. Purchase and Sale.

A. Purchase Amount. Subject to the terms and conditions herein and the satisfaction of the conditions to Closing set forth below, for an aggregate purchase price of $2,000,000.00 ("Purchase Amount"), Investor hereby irrevocably agrees to purchase a Note in the Face Value of $2,200,000.00 with an original issue discount ("OID") and 100,000 shares of Common Stock, all in accordance with the terms, provisions, and schedule set forth in this Agreement and in the Transaction Documents.

B. Deliveries. The following documents will be fully executed and delivered at the Closing:

1. This Agreement;
2. Note, in the form attached hereto as Exhibit 2;
3. Transfer Agent Instructions, in the form attached hereto as Exhibit 3;
4. Legal Opinion, in the form attached hereto as Exhibit 4;
5. Officer’s Certificate, in the form attached hereto as Exhibit 5;
6. Secretary’s Certificate, in the form attached hereto as Exhibit 6;

7. Confession of Judgment forms, in the form attached hereto as Exhibit 7; and

8. Transfer agent book entry for 100,000 shares of Common Stock.

C. Closing Conditions. The consummation of the transactions contemplated by this Agreement (each, a “Closing”) is subject to the satisfaction of each of the following conditions:

1. All documents, instruments and other writings required to be delivered by Company to Investor pursuant to any provision of this Agreement or in order to implement and effect the transactions contemplated herein have been fully executed and delivered, including without limitation those enumerated in Section II.B above;

2. The Common Stock is listed for and currently trading on the same or higher Trading Market and Company is in compliance with all requirements to maintain listing on the Trading Market, the Company has received no notice of any suspension or delisting with respect to the trading of the shares of Common Stock on such Trading Market, and Company is not aware of any current facts or circumstances that, with the passage of time, would reasonably be expected to cause such disqualification;

3. The representations and warranties of Company and Investor set forth in this Agreement are true and correct in all material respects as if made on such date (except for representations and warranties expressly made as of a specified date, which will be true as of such date);

4. No material breach or default has occurred under any Transaction Document or any other agreement between Company and Investor;

5. Company has the number of duly authorized shares of Common Stock reserved for issuance as required pursuant to the terms of this Agreement;

6. There is not then in effect any law, rule or regulation prohibiting or restricting the transactions contemplated in any Transaction Document, or requiring any consent or approval which will not have been obtained, nor is there any completed, ongoing, pending, threatened or, to Company’s knowledge, contemplated proceeding or investigation which may have the effect of prohibiting or adversely affecting any of the transactions contemplated by this Agreement, including without limitation the sale, issuance, listing, trading or resale of any Shares on the Trading Market; no statute, rule, regulation, executive order, decree, ruling or injunction will have been enacted, entered, promulgated or adopted by any court or governmental authority of competent jurisdiction that prohibits the transactions contemplated by this Agreement, and no actions, suits or proceedings will be completed, ongoing, pending, threatened or, to Company’s knowledge, contemplated by any person other than Investor or any Affiliate of Investor, that seek to enjoin or prohibit the transactions contemplated by this Agreement; and
7. Any rights of first refusal, preemptive rights, rights of participation, or any similar right to participate in the transactions contemplated by this Agreement, if any, have been waived in writing.

D. **Closing.** Immediately when all conditions set forth in Section II.C have been fully satisfied, Company will issue and sell to Investor and Investor will purchase the Note and Common Stock by payment to Company of $2,000,000.00 in cash, by wire transfer of immediately available funds to an account designated by Company.

E. **Company Option.** Within one Trading Day of the Registration Statement being declared effective by the Commission, Company may elect to sell and if so Investor will purchase for $250,000.00 in cash an additional Promissory Note (with the initial Promissory Note, each a “Note”) in the Face Value of $275,000.00 when all conditions set forth in Section II.C have been fully satisfied.

III. **Representations and Warranties.**

A. **Representations Regarding Transaction.** Except as set forth under the corresponding section of the Disclosure Schedules, if any, Company hereby represents and warrants to, and as applicable covenants with, Investor as of the Closing:

1. **Organization and Qualification.** Company and each Subsidiary is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, as applicable, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither Company nor any Subsidiary is in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents, except as would not reasonably be expected to result in a Material Adverse Effect. Each of Company and each Subsidiary is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not reasonably be expected to result in a Material Adverse Effect and there is no completed, pending, threatened or, to the knowledge of Company, contemplated proceeding in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

2. **Authorization; Enforcement.** Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by each of the Transaction Documents and otherwise to carry out its obligations hereunder or thereunder. The execution and delivery of each of the Transaction Documents by Company and the consummation by it of the transactions contemplated hereby or thereby have been duly authorized by all necessary action on the part of Company and no further consent or action is required by Company. Each of the Transaction Documents has been, or upon delivery will be, duly executed by Company and, when delivered in accordance with the terms hereof, will constitute the valid and binding obligation of Company, enforceable against Company in accordance with its terms, except (a) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors’ rights generally, (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (c) insofar as indemnification and contribution provisions may be limited by applicable law.
3. **No Conflicts.** The execution, delivery and performance of the Transaction Documents by Company, the issuance and sale of the Securities and the consummation by Company of the other transactions contemplated thereby do not and will not (a) conflict with or violate any provision of Company’s or any Subsidiary’s certificate or articles of incorporation, bylaws or other organizational or charter documents, (b) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any material agreement, credit facility, debt or other instrument (evidencing Company or Subsidiary debt or otherwise) or other understanding to which Company or any Subsidiary is a party or by which any property or asset of Company or any Subsidiary is bound or affected, (c) conflict with or result in a violation of any material law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which Company or a Subsidiary is subject (including U.S. federal and state securities laws and regulations), or by which any property or asset of Company or a Subsidiary is bound or affected, or (d) conflict with or violate the terms of any material agreement by which Company or any Subsidiary is bound or to which any property or asset of Company or any Subsidiary is bound or affected; except in the case of each of clauses (b), (c) and (d), such as would not reasonably be expected to result in a Material Adverse Effect.

4. **Litigation.** There is no action, suit, inquiry, notice of violation, proceeding or investigation completed, ongoing, pending, threatened or, to the knowledge of Company, contemplated against or affecting Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”), which would reasonably be expected to have a Material Adverse Effect or challenge the legality, validity or enforceability of any of the Transaction Documents. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by Company or any Subsidiary under the Exchange Act or the Act.

5. **Filings, Consents and Approvals.** Neither Company nor any Subsidiary is required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by Company of the Transaction Documents, other than required federal and state securities filings, and such filings and approvals as are required to be made or obtained under the applicable Trading Market rules in connection with the transactions contemplated hereby, each of which has been, or if not yet required to be filed will be, timely filed.

6. **Issuance of Shares.** The Common Stock and Conversion Shares will be duly authorized and, when issued upon the conversion of the Note in accordance with its terms, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens except those created by the Investor.
7. **Disclosure; Non-Public Information.** If required by law, the Company will timely file a current report on Form 8-K ("Current Report") describing the material terms and conditions of this Agreement, a copy of which has been provided to Investor prior to the Effective Date. There is no adverse material information regarding Company that has not been disclosed to Investor prior to the Effective Date. All information that Company has provided to Investor that constitutes or might constitute material, non-public information will be included in the Current Report. Notwithstanding any other provision, except with respect to information that will be, and only to the extent that it actually is, timely publicly disclosed by Company pursuant to the foregoing sentence, neither Company nor any other Person acting on its behalf has provided Investor or its representatives, agents or attorneys with any information that constitutes or might constitute material, non-public information, including without limitation this Agreement and the Exhibits and Disclosure Schedules hereto. No information contained in the Disclosure Schedules constitutes material non-public information. Company understands and confirms that Investor will rely on the foregoing representations and covenants in effecting transactions in securities of Company.

8. **No Integrated Offering.** Neither Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering to be integrated with prior offerings by Company that cause a violation of the Act or any applicable stockholder approval provisions, including, without limitation, under the rules and regulations of the Trading Market.

9. **Financial Condition.** The Public Reports set forth as of the dates thereof all outstanding secured and unsecured Indebtedness of Company or any Subsidiary, or for which Company or any Subsidiary has commitments, and any material default with respect to any Indebtedness. Company does not intend to incur debts beyond its ability to pay such debts as they mature, taking into account the timing and amounts of cash to be payable on or in respect of its debt, and represents that it will not do so.

10. **Section 5 Compliance.** All information provided to Investor regarding Company, its business and the transactions contemplated hereby, including without limitation the Disclosure Schedules and the representations and warranties in this Agreement, and the other statements made by Company in the Transaction Documents, do not contain any material untrue statement or omit to state a material fact necessary to make any of them, in light of the circumstances in which it was made, not misleading. Company is not aware of any facts or circumstances that would cause the transactions contemplated by the Transaction Documents, when consummated, to violate Section 5 of the Act or other federal or state securities laws or regulations.

11. **Investment Company.** Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Note, will not be or be an Affiliate of, an “investment company” within the meaning of the Investment Company Act of 1940, as amended. Company will conduct its business in a manner so that it will not become subject to the Investment Company Act.
12. **Acknowledgments Regarding Investor.** Company’s decision to enter into this Agreement has been based solely on the independent evaluation by Company and its representatives, and Company acknowledges and agrees that:

   a. Investor is not, has never been, and as a result of the transactions contemplated by the Transaction Documents will not become an officer, director, insider or control person of Company, or to Company’s knowledge 10% or greater shareholder or otherwise an affiliate of Company as defined under Rule 12b-2 of the Exchange Act;

   b. Investor and its representatives have not made and do not make any representations, warranties or agreements with respect to the Note, Common Stock and Conversion Shares, this Agreement, or the transactions contemplated hereby other than those specifically set forth in Section III.C below; Company has not relied upon, and expressly disclaims reliance upon, any and all written or oral statements or representations made by any persons prior to this Agreement;

   c. The conversion of Note and resale of Conversion Shares will result in dilution, which may be substantial; the number of Conversion Shares will increase in certain circumstances; and Company’s obligation to issue and deliver Conversion Shares in accordance with this Agreement and the Note is absolute and unconditional regardless of the dilutive effect that such issuances may have; and

   d. Investor is acting solely in the capacity of arm’s length purchaser with respect to this Agreement and the transactions contemplated hereby; neither Investor nor any of its Affiliates, agents or representatives has or is acting as a legal, financial, investment, accounting, tax or other advisor to Company, or fiduciary of Company, or in any similar capacity; neither Investor nor any of its Affiliates, agents or representatives has provided any legal, financial, investment, accounting, tax or other advice to Company; any statement made in connection with this Agreement or the transactions contemplated hereby is not advice or a recommendation, and is merely incidental to Investor’s purchase of the Shares.

13. **No Bad Actor Disqualification.** Neither Company, any predecessor of Company, any affiliate of Company, any director, executive officer, other officer of Company participating in the offering, or any beneficial owner of 20% or more of Company’s outstanding voting equity securities is subject to any bad actor disqualification as provided in Rule 506(d) of Regulation D, and Company is not aware of any current facts or circumstances that, with the passage of time, would reasonably be expected to cause such disqualification.

14. **Not a Shell.** Company is not, and has never been, a shell company as defined in Rule 12b-2 of the Exchange Act.

B. **Representations Regarding Company.** Except as set forth in any Public Reports and attached exhibits, or under the corresponding section of the Disclosure Schedules, if any, Company hereby represents and warrants to, and as applicable covenants with, Investor as of the Closing:
1. **Capitalization.** The capitalization of the Company as of the Effective Date is as described in the Public Reports or Disclosure Schedules. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents which has not been waived or satisfied. Except as a result of the purchase and sale of the Note, Common Stock and Conversion Shares, there are no outstanding options, warrants, script rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or securities convertible into or exercisable for shares of Common Stock. The issuance and sale of the Shares will not obligate Company to issue shares of Common Stock or other securities to any Person, other than Investor, and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange, or reset price under such securities. All of the outstanding shares of capital stock of Company are validly issued, fully paid and nonassessable, have been issued in material compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. No further approval or authorization of any stockholder, the Board of Directors of Company or others is required for the issuance and sale of the Shares. There are no existing or contemplated subscription or investment agreements, stockholder agreements, voting agreements or other similar agreements with respect to Company’s capital stock to which Company is a party or, to the knowledge of Company, between or among any of Company’s stockholders.

2. **Subsidiaries.** All of the direct and indirect subsidiaries of Company are set forth in the Public Reports or the corresponding section of the Disclosure Schedules. Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary, and all of such directly or indirectly owned capital stock or other equity interests are owned free and clear of any Liens. All the issued and outstanding shares of capital stock of each Subsidiary are duly authorized, validly issued, fully paid, nonassessable and free of preemptive and similar rights to subscribe for or purchase securities.

3. **Public Reports; Financial Statements.** Company has filed all required Public Reports for the one year preceding the Effective Date. As of their respective dates or as subsequently amended, the Public Reports complied in all material respects with the requirements of the Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, as applicable, and none of the Public Reports, when filed and, as applicable, amended, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of Company included in the Public Reports, as amended, comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with GAAP, except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of Company and its consolidated subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.
4. **Material Changes.** Since the end of the most recent year for which an Annual Report on Form 10-K has been filed with the Commission, (a) there has been no event, occurrence or development that has had, or that would reasonably be expected to result in, a Material Adverse Effect, (b) Company has not incurred any liabilities (contingent or otherwise) other than (i) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice, and (ii) liabilities not required to be reflected in Company’s financial statements pursuant to GAAP or required to be disclosed in filings made with the Commission, (c) Company has not altered its method of accounting, (d) Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock, and (e) Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company equity incentive plans. Company does not have pending before the Commission any request for confidential treatment of information.

5. **Litigation.** There is no Action completed, ongoing, pending, threatened or, to the knowledge of Company, contemplated, that would reasonably be expected to result in a Material Adverse Effect. Neither Company nor any Subsidiary, nor any current director or officer thereof, nor to the knowledge of Company any former director or officer of Company, and greater than 5% shareholder of Company, or any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, is not ongoing, pending or threatened, and to the knowledge of Company is not contemplated, any investigation by the Commission or any law enforcement agency involving Company or any current director or officer of Company, or to the knowledge of Company any former director or officer of Company, and greater than 5% shareholder of Company, or any director or officer thereof.

6. **No Bankruptcy.** The Company has not filed and, to the Company’s knowledge no other Person has filed or commenced, any petition or application, or any judicial or administrative proceeding commenced which has not been discharged, with respect to the Company or any Subsidiary or with respect to any of the properties or assets of Company or any Subsidiary under any applicable law relating to bankruptcy, insolvency, reorganization, fraudulent transfer, compromise, arrangement of debt, creditors’ rights and no general assignment has been made by the Company or any Subsidiary for the benefit of creditors.

7. **Labor Relations.** No material labor dispute exists or, to the knowledge of Company, is imminent with respect to any of the employees of Company, which would reasonably be expected to result in a Material Adverse Effect.

8. **Compliance.** Neither Company nor any Subsidiary (a) is in material default under or in material violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by Company or any Subsidiary under), nor has Company or any Subsidiary received notice of a claim that it is in material default under or that it is in material violation of, any indenture, loan or credit agreement or any other similar agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (b) is in violation of any order of any court, arbitrator or governmental body, or (c) is or has been in violation of any statute, rule or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws applicable to its business, except in each case as would not reasonably be expected to have a Material Adverse Effect.
9. **Regulatory Permits.** Company and each Subsidiary possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the Public Reports, except where the failure to possess such permits would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect (“Material Permits”), and neither Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit.

10. **Title to Assets.** Company and each Subsidiary have good and marketable title in fee simple to all real property owned by them that is material to the business of Company and each Subsidiary and good and marketable title in all personal property owned by them that is material to the business of Company and each Subsidiary, in each case free and clear of all Liens, except for Liens that do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by Company and each Subsidiary and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by Company and each Subsidiary are held by them under leases which, to the Company’s knowledge, are valid, subsisting and enforceable leases and as to which Company and each Subsidiary are in compliance, except where such noncompliance could not reasonably be expected to have a Material Adverse Effect.

11. **Patents and Trademarks.** Company and each Subsidiary have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, copyrights, licenses and other similar rights that are necessary or material for use in connection with their respective businesses as described in the Public Reports and which the failure to so have would have a Material Adverse Effect (collectively, “Intellectual Property Rights”). Neither Company nor any Subsidiary has received a written notice that the Intellectual Property Rights used by Company or any Subsidiary violates or infringes upon the rights of any Person. To the knowledge of Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights of Company or each Subsidiary.

12. **Insurance.** Company and each Subsidiary are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which Company and each Subsidiary are engaged. To Company’s knowledge, such insurance contracts and policies are in full force and complete in all material respects. Neither Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without an increase in cost that would constitute a Material Adverse Effect.
13. **Transactions with Affiliates and Employees.** None of the officers or directors of Company and, to the knowledge of Company, none of the employees of Company is presently a party to any transaction with Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of $120,000 other than (i) for payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of Company and (iii) for other employee benefits, including stock option agreements under any equity incentive plan of Company.

14. **Certain Fees.** No brokerage or finder’s fees or commissions are or will be payable to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by this Agreement as a result of any action by the Company or any Person acting on its behalf. Notwithstanding any other provision, Investor will have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this section that may be due in connection with the transactions contemplated by this Agreement or the other Transaction Documents.

15. **Registration Rights.** No Person has any right to cause Company to effect the registration under the Act of any securities of Company.

16. **Listing and Maintenance Requirements.** The Common Stock is registered pursuant to Section 12 of the Exchange Act, and Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has Company received any notification that the Commission is contemplating terminating such registration. Company has not, in the 12 months preceding the Effective Date, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that Company is not in compliance with the listing or maintenance requirements of such Trading Market. Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all listing and maintenance requirements of the Trading Market on which the Common Stock is currently quoted.

17. **Tax Status.** Company and each of its Subsidiaries has made or filed all federal, state and foreign income and all other tax returns, reports and declarations required by any jurisdiction to which it is subject (unless and only to the extent that Company and each of its Subsidiaries has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes). Company has not executed a waiver with respect to the statute of limitations relating to the assessment or collection of any foreign, federal, statute or local tax. None of Company’s tax returns is presently being audited by any taxing authority. Company would not be classified as a PFIC for its most recently completed taxable year, and does not expect to be classified as a PFIC for its current taxable year.
18. **Foreign Corrupt Practices.** Neither Company, nor to the knowledge of Company, any agent or other person acting on behalf of Company, has (a) directly or indirectly, used any corrupt funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (b) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (c) failed to disclose fully any contribution made by Company, or made by any person acting on its behalf of which Company is aware, which is in violation of law, or (d) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

19. **Accountants.** Company’s accountants are set forth in the Public Reports and such accountants are an independent registered public accounting firm.

20. **No Disagreements with Accountants or Lawyers.** There are no material disagreements presently existing, or reasonably anticipated by Company to arise, between Company and the accountants or lawyers formerly or presently employed by Company.

21. **Powers of Attorney.** There are no outstanding powers of attorney executed on behalf of the Company or any Subsidiary.

22. **Computer and Technology Security.** Company has taken reasonable steps to safeguard the information technology systems utilized in the operation of the business of Company, including the implementation of procedures designed to minimize the risk that such information technology systems have any disabling codes or instructions, timer, copy protection device, clock, counter or other limiting design or routing and any back door, virus, malicious code or other software routines or hardware components that in each case permit unauthorized access or the unauthorized disablement or unauthorized erasure of data or other software by a third party, and, to Company’s knowledge, to date there have been no successful unauthorized intrusions or breaches of the security of its information technology systems.

23. **Data Privacy.** Company has: (a) complied with, and is presently in compliance in all material respects with, all applicable laws in connection with data privacy, information security, data security and/or personal information; (b) complied in all material respects with, and is presently in material compliance with, its policies and procedures applicable to data privacy, information security, data security, and personal information; (c) not experienced any material incident in which personal information or other sensitive data was or may have been stolen or improperly accessed; and Company is not aware of any facts suggesting the likelihood of the foregoing, including without limitation, any breach of security or receipt of any notices or complaints from any Person regarding personal information or other data.

C. **Representations and Warranties of Investor.** Investor hereby represents and warrants to Company as of the Closing as follows:
1. **Organization; Authority.** Investor is an entity validly existing and in good standing under the laws of the jurisdiction of its organization with full right, company power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations thereunder. The execution, delivery and performance by Investor of the transactions contemplated by this Agreement have been duly authorized by all necessary company or similar action on the part of Investor. Each Transaction Document to which it is a party has been, or will be, duly executed by Investor, and when delivered by Investor in accordance with the terms hereof, will constitute the valid and legally binding obligation of Investor, enforceable against it in accordance with its terms, except (a) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors’ rights generally, (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (c) insofar as indemnification and contribution provisions may be limited by applicable law.

2. **Investor Status.** At the time Investor was offered the Shares, it was, and at the Effective Date it is: (a) an accredited investor as defined in Rule 501(a) under the Act; and (b) not a registered broker-dealer, member of FINRA, or an affiliate thereof.

3. **Experience of Investor.** Investor, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Note, Common Stock and Conversion Shares, and has so evaluated the merits and risks of such investment. Investor is able to bear the economic risk of an investment in the Note, Common Stock and Conversion Shares and, at the present time, is able to afford a complete loss of such investment.

4. **Ownership.** Investor is acquiring the Note as principal for its own account.

5. **No Short Sales.** Neither Investor nor any Affiliate holds any short position in, nor has engaged in any Short Sales of the Common Stock, or engaged in any hedging transactions with regard to the Shares prior to the Effective Date.

IV. **Securities and Other Provisions.**

A. **Investor Due Diligence.** Investor will have the right and opportunity to conduct customary due diligence with respect to any Registration Statement or Prospectus in which the name of Investor or any Affiliate of Investor appears.

B. **Furnishing of Information.** As long as Investor owns any Note, Common Stock and Conversion Shares, Company will timely file all reports required to be filed by Company after the Effective Date pursuant to the Exchange Act. As long as Investor owns any Note, Common Stock and Conversion Shares, Company will prepare and make publicly available such information as is required for Investor to sell its Conversion Shares under Rule 144. Company further covenants that, as long as Investor owns any Note, Common Stock and Conversion Shares, Company will take such further action as Investor may reasonably request, all to the extent required from time to time to enable Investor to sell its Conversion Shares without registration under the Act within the limitation of the exemptions provided by Rule 144.
C. **Integration.** Company will not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security, as defined in Section 2 of the Act, that would be integrated with the offer or sale of the Note, Common Stock and Conversion Shares to Investor for purposes of the rules and regulations of any Trading Market such that it would require stockholder approval prior to the closing of such other transaction unless stockholder approval is obtained before the closing of such subsequent transaction.

D. **Disclosure and Publicity.** Company will provide to Investor for review and approval prior to filing or issuing that portion of any current, periodic or public report, registration statement, press release, public statement or communication relating to or referencing Investor, any Transaction Documents or the transactions contemplated thereby, any such approval not to be unreasonably withheld.

E. **Shareholders Rights Plan.** No claim will be made or enforced by Company or, to the knowledge of Company, any other Person that Investor is an “Acquiring Person” under any shareholders plan or similar plan or arrangement in effect or hereafter adopted by Company, or that Investor could be deemed to trigger the provisions of any such plan or arrangement, in either such case, by virtue of receiving Shares under the Transaction Documents or under any other agreement between Company and Investor. Company will conduct its business in a manner so that it will not become subject to the Investment Company Act of 1940, as amended.

F. **No Non-Public Information.** Company covenants and agrees that neither it nor any other Person acting on its behalf will, provide Investor or its agents or counsel with any information that Company believes or reasonably should believe will constitute material non-public information after Closing. On and after Closing, neither Investor nor any Affiliate of Investor will have any duty of trust or confidence that is owed directly, indirectly, or derivatively, to Company or the stockholders of Company, or to any other Person who is the source of material non-public information regarding Company. Company understands and confirms that Investor will be relying on the foregoing in effecting transactions in securities of Company, including without limitation sales of the Shares.

G. **Indemnification of Investor.**

1. **Obligation to Indemnify.** Subject to the provisions of this Section IV.G, Company will indemnify and hold Investor, its Affiliates, managers and advisors, and each of their officers, directors, shareholders, partners, employees, representatives, agents and attorneys, and any person who controls Investor within the meaning of Section 15 of the Act or Section 20 of the Exchange Act (collectively, “Investor Parties”) and each a “Investor Party”), harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, reasonable costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys’ fees and costs of investigation (collectively, “Losses”) that any Investor Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by Company in this Agreement or in the other Transaction Documents, (b) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, Prospectus, Prospectus Supplement, or any information incorporated by reference therein, or arising out of or based upon any omission or alleged omission to state a material fact necessary in making the statements therein, in the light of the circumstances under which they were made, not misleading, or (c) any action by a creditor or stockholder of Company who is not an Affiliate of an Investor Party, challenging the transactions contemplated by the Transaction Documents; provided, however, that Company will not be obligated to indemnify any Investor Party for any Losses finally adjudicated to be caused solely by (i) a false statement of material fact contained within written information provided by such Investor Party expressly for the purpose of including it in the applicable Registration Statement, Prospectus, Prospectus Supplement, or (ii) such Investor Party’s unexcused material breach of an express provision of this Agreement or another Transaction Document willful misconduct or violation of applicable law.

2. **Procedure for Indemnification.** If any action will be brought against an Investor Party in respect of which indemnity may be sought pursuant to this Agreement, such Investor Party will promptly notify Company in writing, and Company will have the right to assume the defense thereof with counsel of its own choosing. Investor Parties will have the right to employ separate counsel in any such action and participate in the defense thereof, but the reasonable fees and expenses of such counsel will be at the expense of Investor Parties except to the extent that (a) the employment thereof has been specifically authorized by Company in writing, (b) Company has failed after a reasonable period of time to assume such defense and to employ counsel or (c) in such action there is, in the reasonable opinion of such separate counsel, a material conflict with respect to the dispute in question on any material issue between the position of Company and the position of Investor Parties such that it would be inappropriate for one counsel to represent Company and Investor Parties. Company will not be liable to Investor Parties under this Agreement (i) for any settlement by an Investor Party effected without Company’s prior written consent, which will not be unreasonably withheld or delayed; or (ii) to the extent, but only to the extent that a loss, claim, damage or liability is either attributable to Investor’s breach of any of the representations, warranties, covenants or agreements made by Investor in this Agreement or in the other Transaction Documents. In no event will the Company be liable for the reasonable fees and expenses for more than one separate firm of attorneys (plus local counsel as applicable) to represent all Investor Parties.

3. Other than the liability of Investor to Company for uncured material breach of the express provisions of this Agreement, no Investor Party will have any liability to Company or any Person asserting claims on behalf of or in right of Company as a result of acquiring the Note, Common Stock and Conversion Shares under this Agreement.

H. **Reservation of Shares.** Company has reserved from its duly authorized Common Stock for issuance pursuant to the Transaction Documents authorized shares of Common Stock in the amount required by the Transaction Documents and will at all times maintain a reserve equal to 10 times the number of shares sufficient to immediately issue all Conversion Shares potentially issuable at such time, free from preemptive rights (the “Reserved Amount”). The Reserved Amount will, if necessary, be increased from time to time in accordance with the Company’s obligations hereunder. If Company shall issue any securities or make any change to its capital structure which would change the number of shares of Common Stock into which the Note shall be convertible at the then current Conversion Price, Company will at the same time make proper provision so that thereafter there shall be a sufficient number of shares of Common Stock authorized and reserved, free from preemptive rights, for conversion of the outstanding Note. Company (i) acknowledges that it has irrevocably instructed its transfer agent to issue certificates for the Common Stock issuable upon conversion of the Note, and agrees that its issuance of the Note will constitute full authority to its officers and agents who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for shares of Common Stock in accordance with the terms and conditions of the Note and Certificate of Designation.
I. **Activity Restrictions.** For so long as Investor or any of its Affiliates holds any Shares, neither Investor nor any Affiliate will: (1) vote any shares of Common Stock owned or controlled by it, sign or solicit any proxies, attend or be present at a shareholder meeting for purposes of determining a quorum, or seek to advise or influence any Person with respect to any voting securities of Company, except in accordance with the recommendation of Company’s board of directors; (2) engage or participate in any actions, plans or proposals which relate to or would result in (a) acquiring additional securities of Company, alone or together with any other Person, which would result in beneficially owning or controlling more than 9.99% of the total outstanding Common Stock or other voting securities of Company, (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving Company or any of its Subsidiaries, (c) a sale or transfer of a material amount of assets of Company or any of its Subsidiaries, (d) any change in the present board of directors or management of Company, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board, (e) any material change in the present capitalization or dividend policy of Company, (f) any other material change in Company’s business or corporate structure, including but not limited to, if Company is a registered closed-end investment company, any plans or proposals to make any changes in its investment policy for which a vote is required by Section 13 of the Investment Company Act of 1940, (g) changes in Company’s charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of Company by any Person, (h) a class of securities of Company being delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association, (i) a class of equity securities of Company becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act, or (j) any action, intention, plan or arrangement similar to any of those enumerated above; or (3) request Company or its directors, officers, employees, agents or representatives to amend or waive any provision of this section.

J. **No Shorting.** For so long as Investor holds any Note, Common Stock and Conversion Shares, neither Investor nor any of its Affiliates will engage in or effect, directly or indirectly, any Short Sale of Common Stock. For the avoidance of doubt, Investor selling Conversion Shares after Investor has delivered a Conversion Notice to Company is not a Short Sale. There will be no restriction or limitation of any kind on Investor’s right or ability to sell or transfer any or all of the Conversion Shares at any time, in its sole and absolute discretion. Investor may not sell, transfer or assign the Note or any of its rights under this Agreement.

K. **Stock Splits.** If Company at any time on or after the Effective Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) or combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a greater or lesser number of shares, the share numbers, prices and other amounts set forth in this Agreement, as in effect immediately prior to such subdivision or combination, will be proportionately reduced or increased, as applicable, effective at the close of business on the date the subdivision or combination becomes effective.
I. **Subsequent Financings.** As long as Investor holds any Note, Common Stock and Conversion Shares, Company will not enter into any agreement that in any way restricts its ability to enter into any agreement, amendment or waiver with Investor, including without limitation any agreement to offer, sell or issue to Investor any preferred stock, common stock or other securities of Company.

V. **Registration Statement.**

A. **Filing.**

1. Company will at its sole cost and expense prepare and file with the Commission as soon as practicable and in any event within 30 days after the Effective Date a Registration Statement ("Registration Statement") on Form S-3 or, if Form S-3 is unavailable, Form S-1, registering the delayed and continuous resale of all Conversion Shares pursuant to Rule 415 under the Act, and will use reasonable best efforts to cause such Registration Statement to be declared effective under the Act as promptly as practicable, and to remain continuously effective until all Conversion Shares may be resold by Investor pursuant to Rule 144 without volume restrictions, manner-of-sale restrictions, or Company being in compliance with any current public information requirement (the "Registration Period"). In no event will Company withhold or delay any filing, amending or requesting of acceleration of effectiveness for the Registration Statement in order to facilitate registration for any Person other than Investor.

2. If at any time after the initial registration Statement is filed on Form S-3 or Form S-1, the Registration Statement does not remain effective, Company shall use reasonable best efforts to amend the Registration Statement to continue effectiveness uninterrupted.

B. **Procedures.** In connection with the Registration Statement, Company will, as soon as reasonably practicable:

1. Prepare and file with the Commission such pre-effective and post-effective amendments and supplements to the Registration Statement and the Prospectus used in connection with the Registration Statement, and file such reports under the Exchange Act, as may be necessary to cause the Registration Statement to become effective, to keep the Registration Statement continuously effective during the Registration Period and not misleading in any material respect, and as may otherwise be required or applicable under, and to comply with the provisions of, the Act with respect to the disposition of all Conversion Shares covered by the Registration Statement during the Registration Period.

2. Furnish to Investor such number of copies of the Prospectus, and each amendment or supplement thereto, in conformity with the requirements of the Act, and such other documents as Investor may reasonably request in order to facilitate the disposition of Conversion Shares owned by it.

3. Notify Investor: (a) when a Prospectus or any Prospectus supplement or post-effective amendment is proposed to be filed and, with respect to any post-effective amendment, when the same has become effective, except for any filing to be made solely to incorporate by reference a Current Report on Form 8-K, Quarterly Report on Form 10-Q or Annual Report on Form 10-K to be filed with the Commission; (b) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to a Registration Statement or a Prospectus or for additional information; (c) of the issuance by the Commission of any stop order suspending the effectiveness of a Registration Statement or the initiation of any proceedings for that purpose; (d) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Conversion Shares for sale in any jurisdiction, or the initiation or threatening of any proceeding for such purpose, and (e) of the occurrence of any event or circumstance that makes any statement made in the Registration Statement, Prospectus or documents so that, in the case of a Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; provided, however, in no event shall any such notice contain any information which would constitute material, non-public information regarding the Company.
4. Use reasonable best efforts to avoid the issuance of, or, if issued, obtain the withdrawal of, any order suspending the effectiveness of the Registration Statement, or the lifting of any suspension of the qualification, or exemption from qualification, of any of the Conversion Shares for sale in any jurisdiction, at the earliest practicable moment.

5. Incorporate in a Prospectus supplement or post-effective amendment such information as Investor requests be included therein regarding Investor or the plan of distribution of the Conversion Shares; and make all required filings of the Prospectus supplement or such post-effective amendment as soon as practicable after the Company has received notification of such matters to be incorporated in such Prospectus supplement or post-effective amendment; provided, however, that the Company shall not be required to take any action pursuant to this paragraph that would violate applicable law.

6. Whenever necessary, prepare and deliver to Investor any required supplement or amendment, including a post-effective amendment, to the Registration Statement or a supplement to the Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document, including such reports as may be required to be filed under the Exchange Act, so that, as thereafter delivered, the Prospectus will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

7. Use reasonable best efforts to cause all Conversion Shares to be listed on the Trading Market or such other securities exchange or automated quotation system, if any, as is then the principal securities exchange or automated quotation system on which the Common Stock is then listed.

8. Fully cooperate with the Transfer Agent, Investor and its brokers to facilitate the timely clearing and delivery of Conversion Shares to be sold pursuant to the Registration Statement free of any restrictive legends and in such denominations and registered in such names as Investor may reasonably request, including timely completion and delivery of all forms, documents and instruments requested by the Transfer Agent or any broker.
VI. **Confession of Judgment.**

Company and its President and Chief Executive Officer, who hereby absolutely, unconditionally and irrevocably guarantees payment in full of the Note and all obligations under all of the Transaction Documents, will execute the Confession of Judgment forms, which may be filed upon any default or material breach under the Note, including without limitation failure to timely issue Conversion Shares upon Conversion.

VII. **General Provisions.**

A. **Notice.** Unless a different time of day or method of delivery is specifically provided in the Transaction Documents, any and all notices or other communications or deliveries required or permitted to be provided hereunder will be in writing and will be deemed given and effective on the earliest of: (a) the date of transmission, if such notice or communication is delivered via facsimile or electronic mail prior to 5:00 p.m. New York time on a Trading Day and an electronic confirmation of delivery is received by the sender, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered later than 5:00 p.m. New York time or on a day that is not a Trading Day, (c) the next Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The addresses for such notices and communications are such other address as may be designated in writing, in the same manner, by such Person.

B. **Amendments; Waivers.** No provision of this Agreement may be waived or amended except in a written instrument signed, in the case of an amendment, by Company and Investor or, in the case of a waiver, by the party against whom enforcement of any such waiver is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement will be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor will any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

C. **No Third-Party Beneficiaries.** Except as otherwise set forth in Section IV.G, this Agreement and the Transaction Documents will inure solely to the benefit of the parties hereto, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person. Other than the Investor Parties described in Section IV.G, a Person who is not a party to this Agreement shall not have any rights under the Contracts (Rights of Third Parties) Law, 2014 of the Cayman Islands to enforce any term of this Agreement or any Transaction Document.

D. **Fees and Expenses.** Except as otherwise provided in this Agreement, each party will pay the fees and expenses of its own advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of the Transaction Documents. Company acknowledges and agrees that Investor’s counsel solely represents Investor, and does not represent Company or its interests in connection with the Transaction Documents or the transactions contemplated thereby. Company will pay all stamp and other taxes and duties, if any, levied in connection with the sale or issuance of the Shares to Investor.
E. **Severability.** If any provision of this Agreement is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement will not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, will incorporate such substitute provision in this Agreement.

F. **Replacement of Certificates.** If any certificate or instrument evidencing any Shares is mutilated, lost, stolen or destroyed, Company will issue or cause to be issued in exchange and substitution for and upon cancellation thereof, or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to Company of such loss, theft or destruction and customary and reasonable indemnity, if requested. The applicants for a new certificate or instrument under such circumstances will also pay any reasonable third-party costs associated with the issuance of such replacement certificates.

G. **Governing Law.** All matters between the parties, including without limitation questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents will be governed by and construed and enforced in accordance with the laws of the U.S. Virgin Islands, without regard to the principles of conflicts of law that would require or permit the application of the laws of any other jurisdiction, except for corporation law matters applicable to Company which will be governed by the corporate law of its jurisdiction of formation. The parties hereby waive all rights to a trial by jury. In any action, arbitration or proceeding, including appeal, arising out of or relating to any of the Transaction Documents or otherwise involving the parties, the prevailing party will be awarded its reasonable attorneys’ fees and other costs and expenses reasonably incurred in connection with the investigation, preparation, prosecution or defense of such action or proceeding.

H. **Arbitration.** Any dispute, controversy, claim or action of any kind arising out of, relating to, or in connection with this Agreement, or in any way involving Company and Investor or their respective Affiliates, including any issues of arbitrability, will be resolved solely by final and binding arbitration in English before a retired judge at JAMS, or its successor, in the Territory of the Virgin Islands, pursuant to the most expedited and Streamlined Arbitration Rules and Procedures available. Any interim or final award may be entered and enforced by any court of competent jurisdiction. The final award will include the prevailing party’s reasonable arbitration, expert witness and attorney fees, costs and expenses. Notwithstanding the foregoing, Investor may in its sole discretion bring an action in aid of arbitration or for temporary, preliminary or provisional relief pending completion of arbitration.

I. **Remedies.**

   1. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of Investor and Company will be entitled to specific performance under the Transaction Documents, and equitable and injunctive relief to prevent any actual or threatened breach under the Transaction Documents, to the full extent permitted under applicable laws.
2. Without limitation of the foregoing, Company acknowledges that the rights and benefits of Investor pursuant to Section I.G.1. of the Note are unique and that no adequate remedy exists at law if Company breaches or fails timely perform any of its obligations thereunder, that it would be difficult to determine the amount of damages resulting therefrom, that it would cause irreparable injury to Investor, and that any potential harm to Company would be adequately and fully compensable with monetary damages; accordingly, Investor will be entitled to a compulsory remedy of immediate specific performance, temporary, interim, preliminary and final injunctive relief to enforce the provisions thereof, including without limitation requiring Company and its transfer agent, attorneys, officers and directors to immediately take all actions necessary to issue and deliver the number of Conversion Shares stated by Investor, and prohibiting any Common Stock from being issued or transferred until after all Conversion Shares have been received by Investor in electronic form and fully cleared for trading, which requirements will not be stayed for any reason, without the necessity of posting any bond. Company hereby absolutely, unconditionally and irrevocably waives all objections and rights to oppose any motion, application or request by Investor to issue any number of Conversion Shares, and all rights to stay or appeal any resulting order, and any appeal filed by Company or on its behalf will be immediately and automatically dismissed. Company further acknowledges that it has an adequate remedy at law with respect to Section I.G.1. of the Note in a claim for money damages; accordingly, Company may not restrain or enjoin its transfer agent, Investor or any brokers from receiving or reselling any Conversion Shares, and any action for temporary, preliminary or final injunctive relief filed by Company or on its behalf will be immediately and automatically dismissed.

3. Notwithstanding any other provision, the sole and exclusive venue for any action, claim or proceeding against Investor shall be St. Thomas, U.S. Virgin Islands. Any action, claim or proceeding filed or brought against Investor anywhere else will be immediately and automatically dismissed.

J. Payment Set Aside. To the extent that Company makes a payment or payments to Investor pursuant to any Transaction Document or Investor enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to Company, a trustee, receiver or any other person under any law, including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action, then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied will be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

K. Headings. The titles and headings in this Agreement and the Transaction Documents are for convenience only, do not constitute a part of this Agreement and will not be deemed to limit or affect any of the provisions hereof.
L. **Time of the Essence.** Time is of the essence with respect to all provisions of this Agreement, the Note, and all Transaction Documents.

M. **Survival.** The representations and warranties contained herein will survive the Closing and the delivery of the Shares until all Note issued to Investor have been converted or redeemed. Neither party will be under any obligation to update or supplement any of its representations or warranties following the Closing due to a change that occurred after the Closing.

N. **Construction.** The parties agree that each of them and/or their respective counsel has reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party will not be employed in the interpretation of the Transaction Documents or any amendments hereto. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party. All currency references in any Transaction Document are to U.S. dollars.

O. **Further Assurances.** Each party will take all further actions and execute all further documents as may be reasonably necessary to implement the provisions and carry out the intent of this Agreement fully and effectively.

P. **Execution.** This Agreement may be executed in two or more counterparts, all of which when taken together will be considered one and the same agreement and will become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by portable document format, facsimile or electronic transmission, such signature will create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such signature page were an original thereof.

Q. **Entire Agreement.** This Agreement, including the Exhibits hereto, which are hereby incorporated herein by reference, contains the entire agreement and understanding of the parties, and supersedes all prior and contemporaneous agreements, term sheets, letters, discussions, communications and understandings, both oral and written, which the parties acknowledge have been merged into this Agreement. No party, representative, advisor, attorney or agent has relied upon any collateral contract, agreement, assurance, promise, understanding, statement or representation not expressly set forth herein. The parties hereby absolutely, unconditionally and irrevocably waive all rights and remedies, at law and in equity, directly or indirectly arising out of or relating to, or which may arise as a result of, any Person’s reliance on any such statement or assurance.
IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized signatories on the Effective Date.

Company:

GENEREX BIOTECHNOLOGY CORPORATION

By: /s/ Joseph Moscato
Name: Joseph Moscato
Title: President/CEO

Investor:

Discover Growth Fund LLC
Investor Name

By: /s/ John Kirkland
Name: John Kirkland
Title: President of GP of Member
"$" means the currency of the United States of America, in which all dollar amounts in the Transaction Documents will be expressed.

"Act" means the U.S. Securities Act of 1933, as amended, and the rules and regulations promulgated by the Commission thereunder.

"Action" has the meaning set forth in Section III.A.4.

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with a Person, as such terms are used in and construed under Rule 144 under the Act.

"Agreement" means this Purchase Agreement.

"Closing" has the meaning set forth in Section II.D.

"Commission" means the U.S. Securities and Exchange Commission.

"Common Stock" means the Common Stock of Company and any replacement or substitute thereof, or any share capital into which such Common Stock will have been changed or any share capital resulting from a reclassification of such Common Stock.

"Company" has the meaning set forth in the first paragraph of the Agreement.

"Conversion Shares" includes all shares of Common Stock potentially issuable in relation to the Note, including Common Stock that must be issued upon conversion of the Note, and Common Stock that must or may be issued in payment of any Interest.

"Disclosure Schedules" means the disclosure schedules of Company attached hereto as Exhibit 9. TheDisclosure Schedules contain no material non-public information.

"DTC" means The Depository Trust Company, or any successor performing substantially the same function for Company.


"Effective Date" has the meaning set forth in the first paragraph of the Agreement.

"Equity Conditions" has the meaning set forth in the Note.

"GAAP" means U.S. generally accepted accounting principles applied on a consistent basis during the periods involved.
“Indebtedness” means (a) any liabilities for borrowed money or amounts owed in excess of $250,000, other than trade accounts payable incurred in the ordinary course of business, (b) all guaranties, endorsements and other contingent obligations in respect of Indebtedness of others, whether or not the same are or should be reflected in Company’s balance sheet, or the notes thereto, except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of $250,000 due under leases required to be capitalized in accordance with GAAP.

“Intellectual Property Rights” has the meaning set forth in Section III.B.11.

“Investor” has the meaning set forth in the first paragraph of the Agreement.

“Legal Opinion” means an opinion from Company’s legal counsel, in the form attached as Exhibit 4.

“Liens” means a lien, charge, security interest or encumbrance in excess of $250,000, or a right of first refusal, preemptive right or other restriction.

“Material Adverse Effect” includes any material adverse effect on (a) the legality, validity or enforceability of any Transaction Document, (b) the results of operations, assets, business, or financial condition of Company and the Subsidiaries, taken as a whole, which is not disclosed in the Public Reports prior to the Effective Date, (c) Company’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document, or (d) the sale, issuance, registration, listing, resale and trading on the Trading Market of the Conversion Shares.

“Material Permits” has the meaning set forth in Section III.B.9.

“Note” means the Promissory Note issued by Company, in the form attached as Exhibit 2, together with, if issued, the second such Note.

“Obligations” include the full and punctual observance and performance of all present and future duties, covenants, and responsibilities due to Investor by Company under this Agreement, the Note and the other Transaction Documents, including without limitation all present and future obligations and liabilities of Company for the payment of money (extending to all principal amounts, interest, late charges, fees, and all other charges and sums, as well as all costs and expenses payable by Company).

“Officer’s Certificate” means a certificate executed by an authorized officer of Company, in the form attached as Exhibit 5.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government, or an agency or subdivision thereof, or other entity of any kind.

“Public Reports” means the reports filed with the Commission by the Company pursuant to the Exchange Act (see Exhibit 9).
“Purchase Amount” has the meaning set forth in Section II.A.1.

“Receivables” include all accounts receivable and all rights to the payment of a monetary obligation, whether or not earned by performance, and whether evidenced by an account, chattel paper, instrument, general intangible, or otherwise.

“Secretary’s Certificate” means a certificate, in the form attached as Exhibit 6, signed by the secretary of Company.

“Shares” include the initially delivered shares of Common Stock and the Conversion Shares.

“Short Sale” means a “short sale” as defined in Rule 200 of Regulation SHO of the Exchange Act.

“Subsidiary” means any Person owned or controlled by the Company, or in which Company, directly or indirectly, owns a majority of the capital stock or similar interest that would be disclosable pursuant to Regulation S-K, Item 601(b) (21).

“Trading Day” means any day on which the Common Stock is traded on the Trading Market; provided that it will not include any day on which the Common Stock is (a) scheduled to trade for less than 5 hours, or (b) suspended from trading.

“Trading Market” has the meaning set forth in the Note.

“Transaction Documents” means this Agreement, the other agreements, certificates and documents referenced herein or the form of which is attached hereto, and the exhibits, schedules and appendices hereto and thereto.

“Transfer Agent” means the transfer agent for Company.

“Transfer Agent Instructions” means a letter agreement executed by Company, its current transfer agent, and any successor transfer agent for the Common Stock, in the form attached as Exhibit 3.

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I. Terms of Note.

A. Designation and Amount. This Promissory Note ("Note") is issued and delivered to the holder of this Note (each, a "Holder" and collectively, the "Holders") by Generex Biotechnology Corporation, a Delaware corporation ("Company"), in the initial face value of $2,200,000.00 ("Face Value") on December 9, 2019 ("Issuance Date"). The Company will pay the Face Value to Investor in full on the Maturity Date.

B. Ranking. This Note will rank senior to all common stock, preferred stock, other existing and all future indebtedness of the Company. This Note constitutes a debt instrument, Holder is a creditor not an equity security holder, and Holder will not be holder of an equity security unless, until and to the extent that Holder converts this Note into Conversion Shares as provided below.

C. Interest.

1. Commencing on the Issuance Date, this Note will accrue compound interest ("Interest") at a rate equal to 12% per annum, all subject to adjustment as provided in this Note ("Interest Rate"), of the Face Value. The Interest Rate will retroactively increase by 10% per annum upon each occurrence of any Trigger Event (e.g. to 22% upon the first Trigger Event). Interest will be payable with respect to any portion of the Face Value of the Note upon any of the following: (a) upon redemption of the Note in accordance with Section I.F; (b) upon conversion of all or any portion of the Note in accordance with Section I.G, only with respect to that portion which is converted; (c) when, as and if otherwise declared by the board of directors of the Company; and (d) the Maturity Date. The Interest Rate used for calculation of the Liquidation Value, Early Redemption Price and Conversion Premium, as applicable, and the amount of Interest owed will be calculated and determined at close of the Trading Market immediately prior to the Notice Time.

2. Interest, as well as any applicable Liquidation Value payable hereunder, will be paid: (a) provided no Trigger Event has occurred, in the Company’s sole and absolute discretion, immediately in cash; or (b) following the occurrence of a Trigger Event, or if Company does not for any reason whatsoever timely notify and pay Holder as provided in Section I.G.1.e below, in shares of Common Stock valued at the Market Price. In no event will the Market Price be below the par value per share. All amounts that are required or permitted to be paid in cash pursuant to this Note will be paid by wire transfer of immediately available funds to an account designated by Holder.
3. So long as any portion of this Note is outstanding, the Company will not repurchase shares of Common Stock other than as payment of the exercise or conversion price of a convertible security or payment of withholding tax, and no dividends or other distributions will be paid, declared or set apart with respect to any Common Stock, except for Purchase Rights.

D. Protective Provision.

1. So long as any portion of this Note is outstanding, the Company will not, without written approval of the Holders of a majority of the Note then outstanding, alter or amend this Note.

2. A “Deemed Liquidation Event” will mean: (a) a merger or consolidation in which the Company is a constituent party or a subsidiary of the Company is a constituent party and the Company issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Company or a subsidiary in which the shares of capital stock of the Company outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of the surviving or resulting corporation or if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; (b) Company issues securities that are senior to the Note in any respect, (c) Holder does not receive the number of Conversion Shares stated in a Conversion Notice with 5 Trading Days of the Notice Time; (d) trading of the Common Stock is halted or suspended by the Trading Market or any U.S. governmental agency for 5 or more consecutive trading days; or (e) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Company or any subsidiary of the Company of all or substantially all the assets of the Company and its subsidiaries taken as a whole, or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries.

3. The Company will not have the power to close or effect a voluntary Deemed Liquidation Event unless the agreement or plan of merger or consolidation for such transaction provides that the consideration payable to the stockholders of the Company will be allocated among the holders of capital stock of the Company in accordance with Section 1.E, and the required amount is paid to Holder prior to or upon closing, effectuation, or occurrence of the Deemed Liquidation Event.

E. Liquidation.

1. Upon any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, prior to any distribution or payment made to any other creditors or the holders of any Common Stock by reason of their ownership thereof, the Holders of this Note will be entitled to be paid out of the assets of the Company available for distribution to its creditors an amount with respect to the then-outstanding Face Value, plus an amount equal to any accrued but unpaid Interest thereon (collectively with the Face Value, the “Liquidation Value”). If, upon any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, the amounts payable with respect to the Note are not paid in full, the Holders will share equally and ratably in any distribution of assets of the Company in proportion to the liquidation preference and an amount equal to all accumulated and unpaid Interest, if any, to which each such Holder is entitled.
2. If, upon any liquidation, dissolution or winding up of the Company, the assets of the Company will be insufficient to make payment in full to all Holders, then the assets distributable to the Holders will be distributed among the Holders at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

F. Redemption.

1. **Company’s Redemption Option.** On the Maturity Date, the Company may redeem paying Holder in cash an amount per share equal to 100% of the Liquidation Value for the shares redeemed.

2. **Early Redemption.** Prior to the Maturity Date, provided that no Trigger Event has occurred, the Company will have the right at any time upon 30 Trading Days’ prior written notice, in its sole and absolute discretion, to redeem all or any portion of the Note then outstanding by paying Holder in cash by wire transfer of immediately available funds an amount (the “Early Redemption Price”) equal to 120% of the then-outstanding Face Value. Company shall, at Holder’s option, redeem the Note for the Early Redemption Price from the proceeds of debt or equity financing with gross proceeds of $5 million or more.

4. **Mandatory Redemption.** If the Company determines to liquidate, dissolve or wind-up its business and affairs, or effect any Deemed Liquidation Event, the Company will, within three Trading Days of such determination and prior to effectuating any such action, redeem this Note for cash, by wire transfer of immediately available funds to an account designated by Holder, at the Early Redemption Price set forth in Section I.F.2 if the event is prior to the Maturity Date, or at the Liquidation Value if the event is on or after the Maturity Date.

5. **Mechanics of Redemption.** In order to redeem any portion of this Note then outstanding, 30 Trading Days prior to payment the Company must deliver written notice (each, a “Redemption Notice”) to Holder setting forth (a) the Face Value the Company is redeeming, (b) the applicable Interest Rate, Liquidation Value and Early Redemption Price, and (c) the calculation of the amount paid. Upon receipt of full payment in cash for the entire Note, each Holder will promptly submit to the Company such Holder’s Note. For the avoidance of doubt, the delivery of a Redemption Notice shall not affect Holder’s rights under Section I.G until after receipt of cash payment by Holder.

G. Conversion.

1. **Mechanics of Conversion.**
a. All or any portion of the Face Value of the Note may be converted, in part or in whole, into shares of Common Stock, at any time or times beginning on the earlier of effectiveness of the Registration Statement or 6 months after the Issuance Date, in the sole and absolute discretion of Holder or, subject to the terms and conditions hereof, the Company; (i) if at the option of Holder, by delivery of one or more written notices to the Company or its transfer agent (each, a “Holder Conversion Notice”), of the Holder’s election to convert any or all of the Note or (ii) if at the option of the Company, if the Equity Conditions are met, delivery of written notice to Holder (each, a “Company Conversion Notice” and, with the Holder Conversion Notice, each a “Conversion Notice”), of the Company’s election to convert all of any portion of the Note.

b. Each Conversion Notice (as defined below) will set forth the amount of Face Value of Note being converted, the Conversion Premium and the minimum number of Conversion Shares as of the time the Conversion Notice is given (the “Notice Time”), and the calculation thereof.

c. As soon as practicable, and in any event within 1 Trading Day after the Notice Date, time being of the essence, the Company will do all of the following: (i) transmit the Conversion Notice by facsimile or electronic mail to the Company’s transfer agent (the “Transfer Agent”), copying Holder, with instructions to immediately comply with the Conversion Notice and deliver the number of Conversion Shares stated in the Conversion Notice forthwith; (ii) either (A) if the Company is approved through The Depository Trust Company (“DTC”), authorize and instruct the credit by the Transfer Agent of the number of Conversion Shares set forth in the Conversion Notice, to Holder’s or its designee’s balance account with the DTC Fast Automated Securities Transfer (FAST) Program, through its Deposit/Withdrawal at Custodian (DWAC) system, or (B) only if the Company is not approved through DTC, issue and surrender to a common carrier for overnight delivery to the address as specified in the Conversion Notice a certificate bearing no restrictive legend, registered in the name of Holder or its designee, for the number of Conversion Shares set forth in the Conversion Notice; and (iii) if it contends that the Conversion Notice is in any way incorrect, so notify Holder and provide a thorough written explanation and its own calculation, or the Conversion Notice and the calculations therein will conclusively be deemed correct for all purposes. The Company will at all times diligently take or cause to be taken all actions necessary to cause the Conversion Shares to be issued forthwith. If the Conversion Shares are not registered for resale, Investor will provide a legal opinion that they are exempt from registration. Under no circumstances will the Company issue a share certificate bearing a restrictive legend.

d. If at any time or times during or at the end of the Measurement Period the Holder is entitled to receive additional Conversion Shares with regard to an Initial Notice, including without limitation because the Conversion Price has changed for any reason, Holder may at any time in its sole and absolute discretion deliver one or more additional written notices to the Company or its transfer agent (each, an “Additional Notice” and with the Initial Notice, each a “Conversion Notice”) setting forth the additional number of Conversion Shares to be delivered, and the calculation thereof.

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e. If the Company for any reason does not issue or cause to be issued to the Holder within 3 Trading Days after the date of a Delivery Notice, the number of Conversion Shares stated in the Delivery Notice, then, in addition to all other remedies available to the Holder, as liquidated damages and not as a penalty, the Company will pay in cash to the Holder on each day after such 2nd Trading Day that the issuance of such Conversion Shares is not timely effected an amount equal to 2% of the product of (i) the aggregate number of Conversion Shares not issued to the Holder on a timely basis and to which the Holder is entitled and (ii) the highest Closing Price of the Common Stock between the date on which the Company should have issued such shares to the Holder and the actual date of receipt of Conversion Shares by Holder. It is intended that the foregoing will serve to reasonably compensate Holder for any delay in delivery of Conversion Shares, and not as punishment for any breach by the Company. The Company acknowledges that the actual damages likely to result from delay in delivery are difficult to estimate and would be difficult for Holder to prove.

f. Notwithstanding any other provision: all of the requirements of Section I.F and this Section I.G are each independent covenants; the Company’s obligations to issue and deliver Conversion Shares upon any Delivery Notice are absolute, unconditional and irrevocable; any breach or alleged breach of any representation or agreement, or any violation or alleged violation of any law or regulation, by any party or any other person will not excuse full and timely performance of any of the Company’s obligations under these sections; and under no circumstances may the Company seek or obtain any temporary, interim or preliminary injunctive or equitable relief to prevent or interfere with any issuance of Conversion Shares to Holder.

g. Company acknowledges and agrees that monetary damages would be difficult to quantify and prove, and that Holder would not have an adequate remedy at law for any failure to fully perform under this Section G. If for any reason whatsoever Holder does not timely receive the number of Conversion Shares stated in any Delivery Notice, Holder will be entitled to a compulsory remedy of immediate specific performance, temporary, interim and, preliminary and final injunctive relief requiring Company and its transfer agent, attorneys, officers and directors to immediately issue and deliver the number of Conversion Shares stated by Holder, which requirement will not be stayed for any reason, without the necessity of posting any bond, and which Company may not seek to stay or appeal.

h. No fractional shares of Common Stock are to be issued upon conversion of this Note, but rather the Company will round up to the nearest full share. The Holder will not be required to deliver the original of this Note in order to effect a conversion hereunder. The Company will pay any and all taxes which may be payable with respect to the issuance and delivery of any Conversion Shares.

2. **Holder Conversion.** In the event of a conversion of any portion of this Note pursuant to a Holder Conversion Notice, the Company will (a) satisfy the payment of Conversion Premium as provided in Section I.C.2, and (b) issue to the Holder of this Note a number of Conversion Shares equal to the Face Value divided by the applicable Conversion Price with respect to the amount of Note converted; all in accordance with the procedures set forth in Section I.G.1.

3. **Company Conversion.** The Company will have the right to send the Holder a Company Conversion Notice at any time in its sole and absolute discretion, if the Equity Conditions are met as of the time such Company Conversion Notice is given. Upon any conversion of any portion of this Note pursuant to a Company Conversion Notice, the Company will on the date of such notice (a) satisfy the payment of Conversion Premium as provided in Section I.C.2, and (b) issue to the Holder of this Note a number of Conversion Shares equal to the Face Value divided by the applicable Conversion Price with respect to the amount of Note converted; all in accordance with the procedures set forth in Section I.G.1.
4. **Stock Splits.** If the Company at any time on or after the issuance of this Note subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the applicable Conversion Price and other share based metrics in effect immediately prior to such subdivision will be proportionately reduced and the number of shares of Common Stock issuable will be proportionately increased. If the Company at any time on or after such Issuance Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the applicable Conversion Price and other share based metrics in effect immediately prior to such combination will be proportionately increased and the number of Conversion Shares will be proportionately decreased. Any adjustment under this Section will become effective at the close of business on the date the subdivision or combination becomes effective.

5. **Rights.** Except for those issued under the Company’s 2017 Equity Incentive Plan, in addition to any other adjustments, if at any time the Company grants, issues or sells any options, convertible securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which Holder could have acquired if Holder had held the number of shares of Common Stock acquirable upon conversion of the entire Note held by Holder immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights.

6. **Definitions.** The following terms will have the following meanings:

   a. "Conversion Premium" with respect to any amount of this Note that is converted prior to the Maturity Date means the Face Value of the amount converted, multiplied by the product of (i) the applicable Interest Rate, and (ii) the number of whole years between the Issuance Date and the Maturity Date.

   b. "Conversion Price" means, if there has never been a Trigger Event, a price per share of Common Stock equal to 95% of the Market Price less $0.05 per share, but no less than the Floor Price, subject to adjustment as otherwise provided herein. Upon the occurrence of each Trigger Event the percentage in the preceding sentence will decrease by 10% (e.g. to 80% upon the first Trigger Event).

   c. "Conversion Shares" means all shares of Common Stock that are required to be or may be issued upon conversion of this Note.
d. “Equity Conditions” means on each day during the Measuring Period, (i) the Common Stock is not under chill or freeze from DTC, (ii) the Common Stock is designated for trading on a OTCQB or higher stock market and shall not have been suspended from trading on such market, and delisting or suspension by the Trading Market has not been threatened or pending, either in writing by such market or because Company has fallen below the then effective minimum listing maintenance requirements of such market; (iii) the Company has delivered Conversion Shares upon all conversions or redemptions of this Note in accordance with their terms to the Holder on a timely basis; (iv) the Company will have no knowledge of any fact that would cause both of the following (A) a registration statement not to be effective and available for the resale of all Conversion Shares, and (B) Section 3(a)(9) under the Securities Act of 1933, as amended, not to be available for the issuance of all Conversion Shares, or Securities Act Rule 144 not to be available for the resale of all the Conversion Shares without restriction; (v) there has been a minimum average trading volume of $2 million per day in the prior 40 Trading Days; (vi) all shares of Common Stock to which Holder is entitled have been timely received into Holder’s designated account in electronic form fully cleared for trading; (vii) the Company otherwise shall have been in compliance with and shall not have breached any provision, covenant, representation or warranty of any Transaction Document; and (viii) not more than 3 Trigger Events shall have occurred.

e. “Floor Price” means $0.35 per share of Common Stock after Approval is obtained, and $1.00 per share of Common Stock before Approval is obtained.

f. “Maturity Date” means the date that is the 18-month anniversary of the Issuance Date.

g. “Market Price” means the mathematical average of the 5 lowest individual daily volume weighted average prices of the Common Stock during the Measuring Period, which may be non-consecutive.

h. “Measuring Period” means the period beginning on the Issuance Date and ending on the Maturity Date.

i. “Purchase Agreement” means the Purchase Agreement or other agreement pursuant to which the Note is issued, including all exhibits thereto and all related Transaction Documents as defined therein.

j. “Trading Day” means any day on which the Common Stock is traded on the Trading Market.

k. “Trading Market” means OTCQB or whatever higher market is at the applicable time, the principal U.S. trading exchange or market for the Common Stock. All Trading Market data will be measured as provided by the appropriate function of the Bloomberg Professional service of Bloomberg Financial Markets or its successor performing similar functions.

7. Issuance Limitation. Notwithstanding any other provision, at no time may the Company issue shares of Common Stock to Holder which, when aggregated with all other shares of Common Stock then deemed beneficially owned by Holder, would result in Holder owning more than 4.99% of all Common Stock outstanding immediately after giving effect to such issuance, as determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder; provided, however, that Holder may increase such amount to 9.99% upon not less than 61 days’ prior notice to the Company. Company and its transfer agent will immediately provide Holder with the then total number of outstanding shares of Common Stock at any time upon request. No provision of this paragraph may be waived by Holder or the Company.
8. **Conversion at Maturity.** Subject to the foregoing paragraph, provided no Trigger Event has occurred, on the Maturity Date, all remaining outstanding Note will be automatically converted into shares of Common Stock at the Conversion Price.

H. **Trigger Event.**

1. Any occurrence of any one or more of the following, at any time and for any reason whatsoever, will constitute a “Trigger Event”:

   a. Holder does not timely receive the number of Conversion Shares stated in any Conversion Notice, time being of the essence;

   b. The issuance of restricted shares if Holder provides a legal opinion that shares may be issued without restrictive legend, or the issuance of a certificate if Holder requests electronic delivery via DTC;

   c. Any violation of or failure to timely perform any covenant or provision of this Note, the Purchase Agreement, or any Transaction Document, related to payment of cash, registration, authorization, reservation, issuance or delivery of Conversion Shares, time being of the essence;

   d. Any violation of or failure to perform any covenant or provision of this Note, the Purchase Agreement, or any Transaction Document, which in the case of a default that is curable, is not related to payment of cash, registration, reservation or delivery of Conversion Shares, and has not occurred before, is not cured within 5 Trading Days of written notice thereof;

   e. Any representation or warranty made in the Purchase Agreement or any Transaction Document is untrue or incorrect in any respect as of the date when made or deemed made;

   f. The occurrence of any default or event of default under any material agreement, lease, document or instrument to which the Company or any subsidiary is obligated with a value of $250,000 or more, including without limitation of an aggregate of at least $250,000 of indebtedness, not disclosed in the Disclosure Schedules;

   g. While any Registration Statement is required to be maintained effective pursuant to any Transaction Document, the effectiveness of the Registration Statement lapses for any reason, including, without limitation, the issuance of a stop order, or the Registration Statement, or the prospectus contained therein, is unavailable to Holder sale of all Conversion Shares for any 10 or more Trading Days, which may be non-consecutive;
h. The suspension from trading or the failure of the Common Stock to be trading or listed on the Trading Market, or failure to meet the requirements for continued listing on the Trading Market;

i. The Company’s notice, written or oral, to Holder, including without limitation, by way of public announcement or through any of its attorneys, agents, or representatives, of its intention not to comply, as required, with a Conversion Notice at any time, including without limitation any objection or instruction to its transfer agent not to comply with any notice from Holder;

j. Bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for the relief of debtors shall be instituted by or against the Company or any subsidiary and, if instituted against the Company or any subsidiary by a third party, an order for relief is entered or the proceedings are not dismissed within 30 days of their initiation;

k. The appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, or other similar official of the Company or any subsidiary or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the execution of a composition of debts, or the occurrence of any other similar federal, state or foreign proceeding, or the admission by it in writing of its inability to pay its debts generally as they become due, the taking of corporate action by the Company or any Subsidiary in furtherance of any such action or the taking of any action by any person to commence a foreclosure sale or any other similar action under any applicable law;

l. A judgment or judgments for the payment of money aggregating in excess of $250,000 are rendered against the Company or any of its subsidiaries and are not stayed or satisfied within 30 days of entry;

m. The Company does not for any reason timely comply with any applicable reporting requirement of the Securities Exchange Act of 1934, as amended, and the regulations promulgated thereunder, including without limitation timely filing when first due all public reports and filings;

n. Any regulatory, administrative or enforcement proceeding is initiated against Company or any subsidiary (except to the extent an adverse determination would not have a material adverse effect on the Company’s business, properties, assets, financial condition or results of operations or prevent the performance by the Company of any material obligation under the Transaction Documents);

o. Any material provision of this Note is at any time for any reason, other than pursuant to the express terms thereof, cease to be valid and binding on or enforceable against the parties thereto, or the validity or enforceability thereof shall be contested by any party thereto, or a proceeding shall be commenced by the Company or any subsidiary or any governmental authority having jurisdiction over any of them, seeking to establish the invalidity or unenforceability thereof, or the Company or any subsidiary denies that it has any liability or obligation purported to be created under this Note; or

p. The failure of one or more Equity Conditions other than (v).
2. It is intended that all adjustments made following a Trigger Event will serve to reasonably compensate Holder for the change in circumstances, potential consequences and increased risk in light of the occurrence of a Trigger Event, and not as a penalty or punishment for any breach by the Company. The Company acknowledges that the actual damages likely to result from a Trigger Event are difficult to estimate and would be difficult for Holder to prove.

II. Miscellaneous

A. Notices. Any and all notices to the Company will be addressed to the Company’s Chief Executive Officer at the Company’s principal place of business on file with the Secretary of State of the State of Delaware. Any and all notices or other communications or deliveries to be provided by the Company to any Holder hereunder will be in writing and delivered personally, by electronic mail or facsimile, sent by a nationally recognized overnight courier service addressed to each Holder at the electronic mail, facsimile telephone number or address of such Holder appearing on the books of the Company, or if no such electronic mail, facsimile telephone number or address appears, at the principal place of business of the Holder. Any notice or other communication or deliveries hereunder will be deemed given and effective on the earliest of (1) the date of transmission, if such notice or communication is delivered via facsimile or electronic mail prior to 5:30 p.m. New York time, (2) the date after the date of transmission, if such notice or communication is delivered via facsimile or electronic mail later than 5:30 p.m. but prior to 11:59 p.m. New York Time on such date, (3) the second business day following the date of mailing, if sent by nationally recognized overnight courier service, or (4) upon actual receipt by the party to whom such notice is required to be given, regardless of how sent.

B. Lost or Mutilated Note. Upon receipt of evidence reasonably satisfactory to the Company (an affidavit of the registered Holder will be satisfactory) of the ownership and the loss, theft, destruction or mutilation of any certificate evidencing this Note, and in the case of any such loss, theft or destruction upon receipt of indemnity reasonably satisfactory to the Company (provided that if the Holder is a financial institution or other institutional investor its own agreement will be satisfactory) or in the case of any such mutilation upon surrender of such certificate, the Company will, at its expense, execute and deliver in lieu of such certificate a new certificate of like kind representing the Face Value represented by such lost, stolen, destroyed or mutilated certificate and dated the date of such lost, stolen, destroyed or mutilated certificate.

C. Headings. The headings contained herein are for convenience only, do not constitute a part of this Note and will not be deemed to limit or affect any of the provisions hereof.

IN WITNESS WHEREOF, the undersigned have executed this Note on December 9, 2019.

Signed:
Name:
Title:
Exhibit 3
Transfer Agent Instructions
GENEREX BIOTECHNOLOGY CORPORATION

December 9, 2019

Broadridge Financial Solutions Inc.
51 Mercedes Way
Edgewood, NY 11717

Re: Generex Biotechnology Corporation

Ladies and Gentlemen:

In accordance with the Purchase Agreement (“Agreement”), dated December 9, 2019, by and between Generex Biotechnology Corporation, a Delaware corporation (“Company”), and Discover Growth Fund, LLC (“Investor”), pursuant to which Company is required to issue and deliver 100,000 shares (“Shares”) of Company’s common stock (“Common Stock”) immediately upon request, and to reserve, issue and deliver additional Shares upon conversion of the Promissory Note (each a “Note”) in the initial principal amounts of $2,200,000 and $275,000 purchased by Investor, this will serve as our irrevocable, absolute and unconditional instruction, authorization and direction to you to: (a) at any time upon Investor’s request, issue and deliver 100,000 Shares to Investor, (b) immediately reserve 100 million Shares for Investor, (c) upon receipt of written notice, from either Company or from Investor with a copy to Company, reserve any additional Shares requested to be reserved, (d) provide Investor with the then total outstanding number of shares of Common Stock at any time upon request; and (f) whenever either Company or Investor provides you with a Delivery Notice in the form attached hereto as Appendix I, immediately issue the Shares requested. Capitalized terms used herein without definition will have the respective meanings ascribed to them in the Agreement.

The Shares will remain in the created reserve until the earlier of their issuance or such date as both Investor and Company provide written instructions that the Shares or any part of them may be taken out of the reserve and will no longer be subject to the terms of these instructions.

Upon your receipt of a Delivery Notice from either Company or Investor, you are to immediately process the notice in accordance with your most-expedited rush procedures which will be requested on submission, and use your commercially reasonable best efforts to issue and deliver to Investor forthwith the number of Shares stated in the Delivery Notice, either: (a) only if Company is not approved through DTC, and either Company or Investor provides an opinion of counsel to the effect that the Shares may be issued without restrictive legend, by delivering by overnight carrier to the address specified in the notice a physical certificate bearing no restrictive legend; or (b) if Company is DTC eligible and either Company or Investor provides an opinion of counsel to the effect that the Shares may be issued without restrictive legend, by issuing pursuant to the DTC Fast Automated Securities Transfer (FAST) Program and crediting to Investor’s balance account with DTC through its Deposit and Withdrawal At Custodian (DWAC) system, and notifying Investor to cause its bank or broker to post the DWAC transaction. You will, at all times, diligently take or cause to be taken all actions necessary to cause the Shares to be issued immediately.
Company hereby confirms that the Shares should not be subject to any stop-transfer restrictions and will otherwise be freely transferable on the books and records of Company, and if the Shares are certificated, the certificates will not bear any legend restricting transfer of the Shares represented thereby, if a legal opinion is provided as set forth in the preceding paragraph.

Company hereby confirms that no instructions other than as contemplated herein will or may be given to you by Company with respect to the Shares. Company may not instruct you to delay or disregard any reserve request or Delivery Notice and you may not do so. You are to comply promptly with any Delivery Notice or share reservation notice received from Investor, notwithstanding any contrary instructions from Company.

Company will not replace you as Company’s transfer agent, until a reputable registered transfer agent has agreed in writing to serve as Company’s transfer agent and to be bound by all terms and conditions of this letter agreement. In the event that you resign as Company’s transfer agent, Company will engage a suitable replacement reputable registered transfer agent that will agree to serve as transfer agent for Company and be bound by the terms and conditions of these irrevocable instructions as soon as practicable and in any event within 2 Trading Days. In any event, you will not transfer any records of Company to any new transfer agent unless and until Investor has first confirmed in writing that the new transfer agent is reasonably suitable and has agreed in writing to be bound by these instructions.

Company must keep its bill current with you. If Company is not current and is on suspension, Investor will have the right to pay the amount of your standard fees for a share issuance in order for you to act upon these instructions. If payment for the reservation or issuance is not paid by Company or Investor, you have no obligation to act under instructions until your fees are paid.

Company and you hereby acknowledge and confirm that complying with the terms of these instructions does not and will not prohibit you from satisfying any and all fiduciary responsibilities and duties you may owe to Company.

Company will indemnify you and your officers, directors, principals, partners, advisors, attorneys, agents and representatives, and hold each of them harmless from and against any and all loss, cost, liability, damage, claim or expense (including the reasonable fees and disbursements of attorneys) incurred by or asserted against you or any of them arising out of or in connection with any Delivery Notice or the instructions set forth herein, the performance of your duties hereunder and otherwise in respect hereof, including the costs and expenses of defending yourself or themselves against any claim or liability hereunder, except that Company will not be liable hereunder as to amounts in respect of which it is finally determined by a court of competent jurisdiction to be due solely to your fraud, willful misconduct or gross negligence. You will be entitled to indemnity and will have no liability to Company in respect of any action taken in compliance with any Delivery Notice or instruction from Investor, notwithstanding any contrary instructions from Company. Accordingly, you shall have no duty or obligation to confirm the accuracy of any calculations or information set forth in any Delivery Notice submitted by the Investor.
Investor is intended to be and is a third-party beneficiary hereof, and no amendment or modification to the instructions set forth herein may be made without the prior written consent of Investor. The above instructions cannot be revoked, cancelled or modified without prior written approval of Investor.

The Board of Directors of Company has approved the foregoing irrevocable instructions and does hereby extend Company’s irrevocable agreement to indemnify your firm for all loss, liability or expense in carrying out the authority and direction herein contained on the terms herein set forth. You have not previously received contrary instructions from Company or its agents, nor are you aware of any facts or circumstances that would make the transaction improper or illegal under applicable laws or regulations.

IN WITNESS WHEREOF, the parties have caused this letter agreement regarding Transfer Agent Instructions to be duly executed and delivered as of the date first written above.

GENEREX BIOTECHNOLOGY CORPORATION

By:
Name:
Title:

ACCEPTED AND AGREED:

DISCOVER GROWTH FUND, LLC

By:
Name:
Title:

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Appendix I

Form of Delivery Notice

DELIVERY NOTICE

Reference is made to the Promissory Note ("Note") issued by Generex Biotechnology Corporation, a Delaware corporation ("Company") to the Investor named below pursuant to the Purchase Agreement dated December 9, 2019. In accordance with and pursuant to the Note, Investor hereby converts that amount of Face Value of the Note stated below into shares of Common Stock ("Common Stock") of Company, as of the date and time first stated below.

Notice Time: XX/XX/20XX, XX:XX x.m. New York time
Amount of Face Value of Note to be converted: $XXX,000.00
Accrued Interest: XXX,XXX.00
Estimated 5 lowest daily VWAPs during Measurement Period: $XX.XX
Estimated Conversion Price: $X.XX
Estimated Number of Conversion Shares to be Issued:
Prior Common Stock issuances related to this Delivery Notice: 0

Shares of Common Stock to be issued now, subject to X.99% issuance limitation: XX,XXX

Please issue the Common Stock being converted via DWAC in the following name and to the following broker(s), and notify when Company’s transfer agent is ready for broker to initiate DWAC:

Shares: XX,XXX
Issue to: INVESTOR NAME
Broker: BROKER NAME
Account #: XXX-XXX
DTC#: XXXX
Contact: NAME AND TELEPHONE
Exhibit 4

Form of Legal Opinion

1. The Company is a corporation validly existing and in good standing under the laws of the state of its incorporation.

2. The Company has the corporate power to execute, deliver and perform its obligations under the Transaction Documents, to sell and issue the Note and Common Stock, and to issue the Common Stock issuable upon conversion of the Note (the "Conversion Shares").

3. The Note has been duly executed and delivered by the Company, and upon issuance and delivery in accordance with the terms of the Purchase Agreement, the Note will constitute a valid and binding agreement of the Company enforceable against the Company in accordance with its terms, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, arrangement, moratorium or other similar laws affecting creditors’ rights, and subject to general equity principles and to limitations on availability of equitable relief, including specific performance. The Conversion Shares issuable upon conversion of the Note and Preferred Stock have been duly authorized and reserved for issuance, and upon issuance and delivery upon conversion thereof in accordance with the terms of the Note and Preferred Stock, will be validly issued, fully paid and nonassessable. Such issuance of the Note, the Preferred Stock and the Conversion Shares will not be subject to any statutory preemptive rights of any stockholder of the Company.

4. The execution and delivery of the Purchase Agreement, the Note and other Transaction Documents and the issuance and sale of the Note, Common Stock and Conversion Shares have been duly authorized by all necessary corporate action on the part of the Company, and the Transaction Documents have been duly executed and delivered by the Company.

5. Each Transaction Document constitutes a valid and binding agreement of the Company enforceable against the Company in accordance with its terms, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, arrangement, moratorium or other similar laws affecting creditors’ rights, and subject to general equity principles and to limitations on availability of equitable relief, including specific performance.

6. The execution and delivery of the Transaction Documents by the Company does not, and the Company’s issuance and sale of the Note, Common Stock and Conversion Shares will not (a) violate the Certificate of Incorporation or the Bylaws, each as in effect on the date hereof, (b) violate in any U.S. federal or applicable state law, rule or regulation that, in our experience, is applicable to transactions of the type contemplated by the Transaction Documents (except that no opinion is given with respect to applicable federal and state securities laws), or (c) to our knowledge, require the authorization, consent, approval of or other action of, notice to or filing or qualification with, any state or federal governmental authority, except (i) as have been, or will be prior to the Closing, duly obtained or made, or (ii) any filings which may be required under applicable federal securities, state securities or blue sky laws, as to which no opinion is given.
7. The Company is not, and immediately after the consummation of the transactions contemplated by the Transaction Documents will not be, an investment company within the meaning of Investment Company Act of 1940, as amended.

8. To our knowledge, there is no claim, action, suit, proceeding, arbitration, investigation or inquiry, pending or threatened, before any court or governmental or administrative body or agency, or any private arbitration tribunal, against the Company that challenges the validity or enforceability of, or seeks to enjoin the performance of, the Transaction Documents.
GENEREX BIOTECHNOLOGY CORPORATION

December 9, 2019

The undersigned hereby certifies that:

The undersigned is the duly appointed Chief Executive Officer of Generex Biotechnology Corporation, a Delaware corporation ("Company").

This Officer's Certificate ("Certificate") is being delivered to ________________ ("Investor"), by Company, to fulfill the requirement under the Purchase Agreement, dated December 9, 2019, between Investor and Company ("Agreement"). Terms used and not defined in this Certificate have the meanings set forth in the Agreement.

The representations and warranties of Company set forth in the Agreement are true and correct in all material respects as if made on the above date (except for any representations and warranties that are expressly made as of a particular date, in which case such representations and warranties will be true and correct as of such particular date), and no default has occurred under the Agreement, or any other agreement with Investor or any Affiliate of Investor.

Company is not, and will not be as a result of the Closing, in default of the Agreement or any other agreement with Investor or any Affiliate of Investor.

All of the conditions to the Closing required to be satisfied by Company prior to the Closing have been satisfied in their entirety.

IN WITNESS WHEREOF, the undersigned has executed this Officer's Certificate as of the date set forth above.

Signed:
Name:
Title:
December 9, 2019

The undersigned hereby certifies that:

The undersigned is the duly appointed Secretary of Generex Biotechnology Corporation, a Delaware corporation (the “Company”).

This Secretary’s Certificate (“Certificate”) is being delivered to ________________ (“Investor”), by Company, to fulfill the requirement under the Purchase Agreement, dated December 9, 2019, between Investor and Company (“Agreement”). Terms used and not defined in this Certificate have the meanings set forth in the Agreement.

Attached hereto as Exhibit “A” is a true, correct and complete copy of the Certificate of Incorporation of Company, as in effect on the Effective Date.

Attached hereto as Exhibit “B” is a true, correct and complete copy of the Bylaws of Company, as in effect on the Effective Date.

Attached hereto as Exhibit “C” is a true, correct and complete copy of the resolutions of the Board of Directors of Company authorizing the Agreement, the Note, the Conversion Shares, the other Transaction Documents, and the transactions contemplated thereby. Such resolutions have not been amended or rescinded and remain in full force and effect as of the date hereof.

IN WITNESS WHEREOF, the undersigned has executed this Secretary’s Certificate as of the date set forth above.

Signed:
Name:
Title:
IN THE SUPERIOR COURT OF THE STATE OF DELAWARE

DISCOVER GROWTH FUND, LLC, a U.S. Virgin Islands limited liability company, v. GENEREX BIOTECHNOLOGY CORPORATION, a Delaware corporation, and JOSEPH MOSCATO, an individual,

The undersigned, Generex Biotechnology Corporation ("Generex"), a corporation organized and existing under the laws of the State of Delaware, is indebted to Discover Growth Fund, LLC ("Discover"), a limited liability company organized and existing under the laws of the Territory of the United States Virgin Islands, on the Promissory Note ("Note") executed on December 9, 2019 in the initial principal amount of $2,200,000.00.

Generex hereby appoints any attorney duly admitted to practice in the State of Delaware to be its attorney, to appear in any court of record, at any time after this Warrant of Attorney to Confess Judgment ("Warrant") becomes due, and there to waive service of process and confess a judgment against Generex in favor of Discover on the Note for the amount of $2,475,000.00, together with costs and attorney fees; giving its attorney full power and authority to perform every act necessary, including the power to waive and release all errors incident to the exercise of this power and the entry and enforcement of the judgment, and all right of review predicated on it; ratifying and confirming all that its attorney may do or cause to be done by virtue of this Warrant.

GENEREX BIOTECHNOLOGY CORPORATION

By:
Name: Joseph Moscato
Title: President and Chief Executive Officer
IN THE SUPERIOR COURT OF THE STATE OF DELAWARE

DISCOVER GROWTH FUND, LLC, a U.S. Virgin Islands limited liability company, )

Plaintiff, )

v. )

GENEREX BIOTECHNOLOGY CORPORATION, a Delaware corporation, )
and JOSEPH MOSCATO, an individual, )

Defendants. )

WARRANT OF ATTORNEY TO CONFESS JUDGMENT

I, the undersigned, Joseph Moscato, the President and Chief Executive Officer of Generex Biotechnology Corporation ("Generex"), a corporation organized and existing under the laws of the State of Delaware, am indebted to Discover Growth Fund, LLC ("Discover"), a limited liability company organized and existing under the laws of the Territory of the United States Virgin Islands, as guarantor of the Promissory Note ("Note") executed by Generex on December 9, 2019 in the initial principal amount of $2,200,000.00.

I hereby appoint any attorney duly admitted to practice in the State of Delaware to be my attorney, to appear in any court of record, at any time after this Warrant of Attorney to Confess Judgment ("Warrant") becomes due, and there to waive service of process and confess a judgment against me in favor of Discover on the guarantee of the Note for the amount of $2,475,000.00, together with costs and attorney fees; giving my attorney full power and authority to perform every act necessary, including the power to waive and release all errors incident to the exercise of this power and the entry and enforcement of the judgment, and all right of review predicated on it; ratifying and confirming all that my attorney may do or cause to be done by virtue of this Warrant.

Signed: 
Name: Joseph Moscato
IN THE SUPERIOR COURT OF THE STATE OF DELAWARE

DISCOVER GROWTH FUND, LLC, a U.S.)
Virgin Islands limited liability company, )

Plaintiff, )

v. )

GENEREX BIOTECHNOLOGY )
CORPORATION, a Delaware corporation, )
and JOSEPH MOSCATO, an individual, )

Defendants. )

AFFIDAVIT BY DEFENDANT-OBLIGOR
FOR CONFESSION OF JUDGMENT

STATE OF FLORIDA :
COUNTY OF BROWARD :

JOSEPH MOSCATO, being duly sworn, deposes and says:

1. I am the President and Chief Executive Officer of Generex Biotechnology Corporation ("Generex"), a corporation organized and existing under the laws of the State of Delaware, and am indebted to Discover Growth Fund, LLC ("Discover"), a limited liability company organized and existing under the laws of the Territory of the United States Virgin Islands, as guarantor of the Promissory Note ("Note") executed by Generex on December 9, 2019 in the initial principal amount of $2,200,000.00.
2. Judgment may be entered against me for the sum of $2,475,000.00, together with costs and attorney fees.
3. I hereby authorize entry of judgment in the Superior Court of the State of Delaware in and for New Castle County.
4. The contact with the State of Delaware in the transaction is that Generex is a Delaware corporation, that I am the President and Chief Executive Officer of said Delaware corporation, and am the guarantor of the Note issued by said Delaware corporation.
5. My mailing address and residence where I most likely would receive mail is .

__________
Joseph Moscato

NOTARY SIGNATURE AND SEAL APPEARING ON PAGE 2:
The foregoing Affidavit by Defendant-Obligor for Confession of Judgment was Sworn to and subscribed before me, the undersigned authority, by Joseph Moscato personally on his own behalf, who is [ ] personally known by me or [ ] produced _______________________________ as identification this 9th day of December, 2019.

Notary Public

Seal:
SECURITIES PURCHASE AGREEMENT

This SECURITIES PURCHASE AGREEMENT (the “Agreement”), dated as of August 14, 2019, by and between GENEREX BIOTECHNOLOGY CORPORATION, a Delaware corporation, with headquarters located at 10102 USA Today Way, Miramar, FL 33025 (the “Company”), and AUCTUS FUND, LLC, a Delaware limited liability company, with its address at 545 Boylston Street, 2nd Floor, Boston, MA 02116 (the “Buyer”).

WHEREAS:

A. The Company and the Buyer are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by the rules and regulations as promulgated by the United States Securities and Exchange Commission (the “SEC”) under the Securities Act of 1933, as amended (the “1933 Act”);

B. Buyer desires to purchase and the Company desires to issue and sell, upon the terms and conditions set forth in this Agreement the 10% convertible note of the Company, in the form attached hereto as Exhibit A, in the aggregate principal amount of US$1,100,000.00 (together with any note(s) issued in replacement thereof or as a dividend thereon or otherwise with respect thereto in accordance with the terms thereof, the “Note”), convertible into shares of common stock, $0.001 par value per share, of the Company (the “Common Stock”), upon the terms and subject to the limitations and conditions set forth in such Note.

C. The Buyer wishes to purchase, upon the terms and conditions stated in this Agreement, such principal amount of Note as is set forth immediately below its name on the signature pages hereto; and

NOW THEREFORE, the Company and the Buyer severally (and not jointly) hereby agree as follows:

1. PURCHASE AND SALE OF NOTE.

   a. Purchase of Note. On the Closing Date (as defined below), the Company shall issue and sell to the Buyer and the Buyer agrees to purchase from the Company such principal amount of Note as is set forth immediately below the Buyer’s name on the signature pages hereto. In connection with the issuance of the Note, the Company shall issue a common stock purchase warrant to Buyer to purchase 62,857 shares of the Company’s common stock (the “Warrant”) as a commitment fee upon the terms and subject to the limitations and conditions set forth in such Warrant. In connection with the issuance of this Note, the Company shall issue 1,000,000 shares of common stock of Antigen Express, Inc. (the “Antigen Shares”) to Buyer as a commitment fee.

   b. Form of Payment. On the Closing Date (as defined below), (i) the Buyer
shall pay the purchase price for the Note to be issued and sold to it at the Closing (as defined below) (the “Purchase Price”) by wire transfer of immediately available funds to
the Company, in accordance with the Company’s written wiring instructions, against delivery of the Note in the principal amount equal to the Purchase Price as is set forth
immediately below the Buyer’s name on the signature pages hereto, and (ii) the Company shall deliver such duly executed Note and Warrant on behalf of the Company, to the
Buyer, against delivery of such Purchase Price.

c. Closing Date. Subject to the satisfaction (or written waiver) of the conditions thereto set forth in Section 7 and Section 8 below, the date
and time of the issuance and sale of the Note pursuant to this Agreement (the “Closing Date”) shall be 12:00 noon, Eastern Standard Time on or about August 14, 2019, or
such other mutually agreed upon time. The closing of the transactions contemplated by this Agreement (the “Closing”) shall occur on the Closing Date at such location as may
be agreed to by the parties.

2. REPRESENTATIONS AND WARRANTIES OF THE BUYER. The Buyer represents and warrants to the Company that:

a. Investment Purpose. As of the date hereof, the Buyer is purchasing the Note and the shares of Common Stock issuable upon conversion of
or otherwise pursuant to the Note (including, without limitation, such additional shares of Common Stock, if any, as are issuable (i) on account of interest on the Note (ii) as a
result of the events described in Sections
1.3 and 1.4(g) of the Note or (iii) in payment of the Standard Liquidated Damages Amount (as defined in Section 2(f) below) pursuant to this Agreement, such shares of
Common Stock being collectively referred to herein as the “Conversion Shares” and, collectively with the Note, Warrant, shares of Common Stock issuable upon exercise of
the Warrant, and Antigen Shares, the “Securities”) for its own account and not with a present view towards the public sale or distribution thereof, except pursuant to sales
registered or exempted from registration under the 1933 Act; provided, however, that by making the representations herein, the Buyer does not agree to hold any of the
Securities for any minimum or other specific term and reserves the right to dispose of the Securities at any time in accordance with or pursuant to a registration statement or an
exemption under the 1933 Act.

b. Accredited Investor Status. The Buyer is an “accredited investor” as that term is defined in Rule 501(a) of Regulation D (an “Accredited
Investor”).

c. Reliance on Exemptions. The Buyer understands that the Securities are being offered and sold to it in reliance upon specific exemptions
from the registration requirements of United States federal and state securities laws and that the Company is relying upon the truth and accuracy of, and the Buyer’s
compliance with, the representations, warranties, agreements, acknowledgments and understandings of the Buyer set forth herein in order to determine the availability of such
exemptions and the eligibility of the Buyer to acquire the Securities.
d. **Information.** The Buyer and its advisors, if any, have been, and for so long as the Note remains outstanding will continue to be, furnished with all materials relating to the business, finances and operations of the Company and materials relating to the offer and sale of the Securities which have been requested by the Buyer or its advisors. The Buyer and its advisors, if any, have been, and for so long as the Note remains outstanding will continue to be, afforded the opportunity to ask questions of the Company. Notwithstanding the foregoing, the Company has not disclosed to the Buyer any material nonpublic information and will not disclose such information unless such information is disclosed to the public prior to or promptly following such disclosure to the Buyer. Neither such inquiries nor any other due diligence investigation conducted by Buyer or any of its advisors or representatives shall modify, amend or affect Buyer’s right to rely on the Company’s representations and warranties contained in Section 3 below. The Buyer understands that its investment in the Securities involves a significant degree of risk. The Buyer is not aware of any facts that may constitute a breach of any of the Company's representations and warranties made herein.

e. **Governmental Review.** The Buyer understands that no United States federal or state agency or any other government or governmental agency has passed upon or made any recommendation or endorsement of the Securities.

f. **Transfer or Re-sale.** The Buyer understands that (i) the sale or re-sale of the Securities has not been and is not being registered under the 1933 Act or any applicable state securities laws, and the Securities may not be transferred unless (a) the Securities are sold pursuant to an effective registration statement under the 1933 Act, (b) the Buyer shall have delivered to the Company, at the cost of the Company, an opinion of counsel that shall be in form, substance and scope customary for opinions of counsel in comparable transactions to the effect that the Securities to be sold or transferred may be sold or transferred pursuant to an exemption from such registration, which opinion shall be accepted by the Company, (c) the Securities are sold or transferred to an “affiliate” (as defined in Rule 144 promulgated under the 1933 Act (or a successor rule) (“Rule 144”)) of the Buyer who agrees to sell or otherwise transfer the Securities only in accordance with this Section 2(f) and who is an Accredited Investor, (d) the Securities are sold pursuant to Rule 144, or (e) the Securities are sold pursuant to Regulation S under the 1933 Act (or a successor rule) (“Regulation S”), and the Buyer shall have delivered to the Company, at the cost of the Company, an opinion of counsel that shall be in form, substance and scope customary for opinions of counsel in corporate transactions, which opinion shall be accepted by the Company;

(ii) any sale of such Securities made in reliance on Rule 144 may be made only in accordance with the terms of said Rule and further, if said Rule is not applicable, any re-sale of such Securities under circumstances in which the seller (or the person through whom the sale is made) may be deemed to be an underwriter (as that term is defined in the 1933 Act) may require compliance with some other exemption under the 1933 Act or the rules and regulations of the SEC thereunder; and

(iii) neither the Company nor any other person is under any obligation to register such Securities under the 1933 Act or any state securities laws or to comply with the terms and conditions of any exemption thereunder (in each case). Notwithstanding the foregoing or anything else contained herein to the contrary, the Securities may be pledged as collateral in connection with a *bona fide*
margin account or other lending arrangement. In the event that the Company does not accept the opinion of counsel provided by the Buyer with respect to the transfer of Securities pursuant to an exemption from registration, such as Rule 144 or Regulation S, within three (3) business days of delivery of the opinion to the Company, the Company shall pay to the Buyer liquidated damages of five percent (5%) of the outstanding amount of the Note per day plus accrued and unpaid interest on the Note, prorated for partial months, in cash or shares at the option of the Buyer (“Standard Liquidated Damages Amount”). If the Buyer elects to be pay the Standard Liquidated Damages Amount in shares of Common Stock, such shares shall be issued at the Conversion Price (as defined in the Note) at the time of payment.

g. **Legends.** The Buyer understands that the Note and, until such time as the Conversion Shares have been registered under the 1933 Act may be sold pursuant to Rule 144 or Regulation S without any restriction as to the number of securities as of a particular date that can then be immediately sold, the Conversion Shares may bear a restrictive legend in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such Securities):

"NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL (WHICH COUNSEL SHALL BE SELECTED BY THE HOLDER), IN A GENERALLY ACCEPTABLE FORM, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES."

The legend set forth above shall be removed and the Company shall issue a certificate without such legend to the holder of any Security upon which it is stamped, if, unless otherwise required by applicable state securities laws, (a) such Security is registered for sale under an effective registration statement filed under the 1933 Act or otherwise may be sold pursuant to Rule 144 or Regulation S without any restriction as to the number of securities as of a particular date that can then be immediately sold, or (b) such holder provides the Company with an opinion of counsel, in form, substance and scope customary for opinions of counsel in comparable
transactions, to the effect that a public sale or transfer of such Security may be made without registration under the 1933 Act, which opinion shall be accepted by the Company so that the sale or transfer is effected. The Buyer agrees to sell all Securities, including those represented by a certificate(s) from which the legend has been removed, in compliance with applicable prospectus delivery requirements, if any. In the event that the Company does not accept the opinion of counsel provided by the Buyer with respect to the transfer of Securities pursuant to an exemption from registration, such as Rule 144 or Regulation S, at the Deadline, it will be considered an Event of Default pursuant to Section 3.2 of the Note.

h. Authorization; Enforcement. This Agreement has been duly and validly authorized. This Agreement has been duly executed and delivered on behalf of the Buyer, and this Agreement constitutes a valid and binding agreement of the Buyer enforceable in accordance with its terms.

preamble.

i. Residency. The Buyer is a resident of the jurisdiction set forth in the

3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY. The Company represents and warrants to the Buyer that:

a. Organization and Qualification. The Company and each of its Subsidiaries (as defined below), if any, is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is incorporated, with full power and authority (corporate and other) to own, lease, use and operate its properties and to carry on its business as and where now owned, leased, used, operated and conducted. The Company and each of its Subsidiaries is duly qualified as a foreign corporation to do business and is in good standing in every jurisdiction in which its ownership or use of property or the nature of the business conducted by it makes such qualification necessary except where the failure to be so qualified or in good standing would not have a Material Adverse Effect. “Material Adverse Effect” means any material adverse effect on the business, operations, assets, financial condition or prospects of the Company or its Subsidiaries, if any, taken as a whole, or on the transactions contemplated hereby or by the agreements or instruments to be entered into in connection herewith. “Subsidiaries” means any corporation or other organization, whether incorporated or unincorporated, in which the Company owns, directly or indirectly, any equity or other ownership interest.

b. Authorization; Enforcement. (i) The Company has all requisite corporate power and authority to enter into and perform this Agreement, the Note and to consummate the transactions contemplated hereby and thereby and to issue the Securities, in accordance with the terms hereof and thereof; (ii) the execution and delivery of this Agreement, the Note by the Company and the consummation by it of the transactions contemplated hereby and thereby (including without limitation, the issuance of the Note and the issuance and reservation for issuance of the Conversion Shares issuable upon conversion or exercise thereof) have been duly authorized by the Company’s Board of Directors and no further consent or authorization of
the Company, its Board of Directors, or its shareholders is required, (iii) this Agreement has been duly executed and delivered by the Company by its authorized representative, and such authorized representative is the true and official representative with authority to sign this Agreement and the other documents executed in connection herewith and bind the Company accordingly, and (iv) this Agreement constitutes, and upon execution and delivery by the Company of the Note, each of such instruments will constitute, a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms.

c. **Capitalization.** As of the date hereof, the authorized capital stock of the Company consists of: (i) 750,000,000 shares of Common Stock, of which approximately 60,872,396 shares are issued and outstanding; and (ii) 115,000 shares of preferred stock, of which 79,590 are issued and outstanding. Except as disclosed in the SEC Documents, no shares are reserved for issuance pursuant to the Company’s stock option plans, no shares are reserved for issuance pursuant to securities (other than the Note and any other convertible promissory note issued to the Buyer) exercisable for, or convertible into or exchangeable for shares of Common Stock and 10,000,000 shares are reserved for issuance upon conversion of the Note. All of such outstanding shares of capital stock are, or upon issuance will be, duly authorized, validly issued, fully paid and non-assessable. No shares of capital stock of the Company are subject to preemptive rights or any other similar rights of the shareholders of the Company or any liens or encumbrances imposed through the actions or failure to act of the Company. Except as disclosed in the SEC Documents, as of the effective date of this Agreement, (i) there are no outstanding options, warrants, scrip, rights to subscribe for, puts, calls, rights of first refusal, agreements, understandings, claims or other commitments or rights of any character whatsoever relating to, or securities or rights convertible into or exchangeable for any shares of capital stock of the Company or any of its Subsidiaries, or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its Subsidiaries, (ii) there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of its or their securities under the 1933 Act and (iii) there are no anti-dilution or price adjustment provisions contained in any security issued by the Company (or in any agreement providing rights to security holders) that will be triggered by the issuance of the Note or the Conversion Shares. The Company has filed in its SEC Documents true and correct copies of the Company’s Certificate of Incorporation as in effect on the date hereof (“Certificate of Incorporation”), the Company’s By-laws, as in effect on the date hereof (the “By-laws”), and the terms of all securities convertible into or exercisable for Common Stock of the Company and the material rights of the holders thereof in respect thereto. The Company shall provide the Buyer with a written update of this representation signed by the Company’s Chief Executive on behalf of the Company as of the Closing Date.

d. **Issuance of Shares.** The issuance of the Note is duly authorized and, upon issuance in accordance with the terms of this Agreement, will be validly issued, fully paid and non-assessable and free from all preemptive or similar rights, taxes, liens, charges and other encumbrances with respect to the issue thereof. The Conversion Shares are duly authorized and reserved for issuance and, upon conversion of the Note in accordance with its respective terms,
will be validly issued, fully paid and non-assessable, and free from all taxes, liens, claims and encumbrances with respect to the issue thereof and shall not be subject to preemptive rights or other similar rights of shareholders of the Company and will not impose personal liability upon the holder thereof.

e. **Acknowledgment of Dilution.** The Company understands and acknowledges the potentially dilutive effect to the Common Stock upon the issuance of the Conversion Shares upon conversion of the Note. The Company further acknowledges that its obligation to issue Conversion Shares upon conversion of the Note in accordance with this Agreement, the Note is absolute and unconditional regardless of the dilutive effect that such issuance may have on the ownership interests of other shareholders of the Company.

f. **No Conflicts.** The execution, delivery and performance of this Agreement and the Note by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the issuance and reservation for issuance of the Conversion Shares) will not (i) conflict with or result in a violation of any provision of the Certificate of Incorporation or By-laws, or (ii) violate or conflict with, or result in a breach of any provision of, or constitute a default (or an event which with notice or lapse of time or both could become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture, patent, patent license or instrument to which the Company or any of its Subsidiaries is a party, or (iii) result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations and regulations of any self-regulatory organizations to which the Company or its securities are subject) applicable to the Company or any of its Subsidiaries or by which any property or asset of the Company or any of its Subsidiaries is bound or affected (except for such conflicts, defaults, terminations, amendments, accelerations, cancellations and violations as would not, individually or in the aggregate, have a Material Adverse Effect). Neither the Company nor any of its Subsidiaries is in violation of its Certificate of Incorporation, By-laws or other organizational documents and neither the Company nor any of its Subsidiaries is in default (and no event has occurred which with notice or lapse of time or both could put the Company or any of its Subsidiaries in default) under, and neither the Company nor any of its Subsidiaries has taken any action or failed to take any action that would give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which the Company or any of its Subsidiaries is a party or by which any property or assets of the Company or any of its Subsidiaries is bound or affected, except for possible defaults as would not, individually or in the aggregate, have a Material Adverse Effect. The businesses of the Company and its Subsidiaries, if any, are not being conducted, and shall not be conducted so long as the Buyer owns any of the Securities, in violation of any law, ordinance or regulation of any governmental entity. Except as specifically contemplated by this Agreement and as required under the 1933 Act and any applicable state securities laws, the Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court, governmental agency, regulatory agency, self-regulatory organization or stock market or any third party in order for it to execute, deliver or perform any of its obligations under this Agreement, the Note in
accordance with the terms hereof or thereof or to issue and sell the Note in accordance with the terms hereof and to issue the Conversion Shares upon conversion of the Note. All consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence have been obtained or effected on or prior to the date hereof. The Company is not in violation of the listing requirements of the OTC Pink (the “OTC Pink”), the OTCQB or any similar quotation system, and does not reasonably anticipate that the Common Stock will be delisted by the OTC Pink, the OTCQB or any similar quotation system, in the foreseeable future nor are the Company's securities “chilled” by DTC. The Company and its Subsidiaries are unaware of any facts or circumstances which might give rise to any of the foregoing.

SEC Documents; Financial Statements. The Company has timely filed all reports, schedules, forms, statements and other documents required to be filed by it with the SEC pursuant to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “1934 Act”) (all of the foregoing filed prior to the date hereof and all exhibits included therein and financial statements and schedules thereto and documents (other than exhibits to such documents) incorporated by reference therein, being hereinafter referred to herein as the “SEC Documents”). The Company has delivered to the Buyer true and complete copies of the SEC Documents, except for such exhibits and incorporated documents. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the 1934 Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. None of the statements made in any such SEC Documents is, or has been, required to be amended or updated under applicable law (except for such statements as have been amended or updated in subsequent filings prior the date hereof). As of their respective dates, the financial statements of the Company included in the SEC Documents complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. Such financial statements have been prepared in accordance with United States generally accepted accounting principles, consistently applied, during the periods involved and fairly present in all material respects the consolidated financial position of the Company and its consolidated Subsidiaries as of the dates thereof and the consolidated results of their operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments). Except as set forth in the financial statements of the Company included in the SEC Documents, the Company has no liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to April 30, 2019, and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in such financial statements, which, individually or in the aggregate, are not material to the financial condition or operating results of the Company. The Company is subject to the reporting requirements of the 1934 Act. For the avoidance of doubt, filing of the documents
h. **Absence of Certain Changes.** Since April 30, 2019, there has been no material adverse change and no material adverse development in the assets, liabilities, business, properties, operations, financial condition, results of operations, prospects or 1934 Act reporting status of the Company or any of its Subsidiaries.

i. **Absence of Litigation.** There is no action, suit, claim, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the Company or any of its Subsidiaries, threatened against or affecting the Company or any of its Subsidiaries, or their officers or directors in their capacity as such, that could have a Material Adverse Effect. Schedule 3(i) contains a complete list and summary description of any pending or, to the knowledge of the Company, threatened proceeding against or affecting the Company or any of its Subsidiaries, without regard to whether it would have a Material Adverse Effect. The Company and its Subsidiaries are unaware of any facts or circumstances which might give rise to any of the foregoing.

j. **Patents, Copyrights, etc.** The Company and each of its Subsidiaries owns or possesses the requisite licenses or rights to use all patents, patent applications, patent rights, inventions, know-how, trade secrets, trademarks, trademark applications, service marks, service names, trade names and copyrights (“Intellectual Property”) necessary to enable it to conduct its business as now operated (and, as presently contemplated to be operated in the future). Except as disclosed in the SEC Documents, there is no claim or action by any person pertaining to, or proceeding pending, or to the Company’s knowledge threatened, which challenges the right of the Company or of a Subsidiary with respect to any Intellectual Property necessary to enable it to conduct its business as now operated (and, as presently contemplated to be operated in the future); to the best of the Company’s knowledge, the Company’s or its Subsidiaries’ current and intended products, services and processes do not infringe on any Intellectual Property or other rights held by any person; and the Company is unaware of any facts or circumstances which might give rise to any of the foregoing. The Company and each of its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of their Intellectual Property.

k. **No Materially Adverse Contracts, etc.** Neither the Company nor any of its Subsidiaries is subject to any charter, corporate or other legal restriction, or any judgment, decree, order, rule or regulation which in the judgment of the Company’s officers has or is expected in the future to have a Material Adverse Effect. Neither the Company nor any of its Subsidiaries is a party to any contract or agreement which in the judgment of the Company’s officers has or is expected to have a Material Adverse Effect.

l. **Tax Status.** The Company and each of its Subsidiaries has made or filed all federal, state and foreign income and all other tax returns, reports and declarations required by any jurisdiction to which it is subject (unless and only to the extent that the Company and each of
its Subsidiaries has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes) and has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and has set aside on its books provisions reasonably adequate for the payment of all taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim. The Company has not executed a waiver with respect to the statute of limitations relating to the assessment or collection of any foreign, federal, state or local tax. None of the Company’s tax returns is presently being audited by any taxing authority.

m. Certain Transactions. Except for arm’s length transactions pursuant to which the Company or any of its Subsidiaries makes payments in the ordinary course of business upon terms no less favorable than the Company or any of its Subsidiaries could obtain from third parties and other than the grant of stock options disclosed on Schedule 3(c), none of the officers, directors, or employees of the Company is presently a party to any transaction with the Company or any of its Subsidiaries (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any corporation, partnership, trust or other entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner.

n. Disclosure. All information relating to or concerning the Company or any of its Subsidiaries set forth in this Agreement and provided to the Buyer pursuant to Section 2(d) hereof and otherwise in connection with the transactions contemplated hereby is true and correct in all material respects and the Company has not omitted to state any material fact necessary in order to make the statements made herein or therein, in light of the circumstances under which they were made, not misleading. No event or circumstance has occurred or exists with respect to the Company or any of its Subsidiaries or its or their business, properties, prospects, operations or financial conditions, which, under applicable law, rule or regulation, requires public disclosure or announcement by the Company but which has not been so publicly announced or disclosed (assuming for this purpose that the Company’s reports filed under the 1934 Act are being incorporated into an effective registration statement filed by the Company under the 1933 Act).

o. Acknowledgment Regarding Buyer’ Purchase of Securities. The Company acknowledges and agrees that the Buyer is acting solely in the capacity of arm’s length purchasers with respect to this Agreement and the transactions contemplated hereby. The Company further acknowledges that the Buyer is not acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereby and any statement made by the Buyer or any of its respective representatives or agents in connection with this Agreement and the transactions contemplated hereby is not advice or a recommendation and is merely incidental to the Buyer’ purchase of the Securities. The
Company further represents to the Buyer that the Company’s decision to enter into this Agreement has been based solely on the independent evaluation of the Company and its representatives.

p. **No Integrated Offering.** Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf, has directly or indirectly made any offers or sales in any security or solicited any offers to buy any security under circumstances that would require registration under the 1933 Act of the issuance of the Securities to the Buyer. The issuance of the Securities to the Buyer will not be integrated with any other issuance of the Company’s securities (past, current or future) for purposes of any shareholder approval provisions applicable to the Company or its securities.

q. **No Brokers.** The Company has taken no action which would give rise to any claim by any person for brokerage commissions, transaction fees or similar payments relating to this Agreement or the transactions contemplated hereby.

r. **Permits; Compliance.** The Company and each of its Subsidiaries is in possession of all franchises, grants, authorizations, licenses, permits, easements, variances, exemptions, consents, certificates, approvals and orders necessary to own, lease and operate its properties and to carry on its business as it is now being conducted (collectively, the “Company Permits”), and there is no action pending or, to the knowledge of the Company, threatened regarding suspension or cancellation of any of the Company Permits. Neither the Company nor any of its Subsidiaries is in conflict with, or in default or violation of, any of the Company Permits, except for any such conflicts, defaults or violations which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect. Since April 30, 2019, neither the Company nor any of its Subsidiaries has received any notification with respect to possible conflicts, defaults or violations of applicable laws, except for notices relating to possible conflicts, defaults or violations, which conflicts, defaults or violations would not have a Material Adverse Effect.

s. **Environmental Matters.**

   (i) There are, to the Company’s knowledge, with respect to the Company or any of its Subsidiaries or any predecessor of the Company, no past or present violations of Environmental Laws (as defined below), releases of any material into the environment, actions, activities, circumstances, conditions, events, incidents, or contractual obligations which may give rise to any common law environmental liability or any liability under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or similar federal, state, local or foreign laws and neither the Company nor any of its Subsidiaries has received any notice with respect to any of the foregoing, nor is any action pending or, to the Company’s knowledge, threatened in connection with any of the foregoing. The term “Environmental Laws” means all federal, state, local or foreign laws relating to pollution or protection of human health or the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata), including, without limitation, laws relating
to emissions, discharges, releases or threatened releases of chemicals, pollutants contaminants, or toxic or hazardous substances or wastes (collectively, “Hazardous Materials”) into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations issued, entered, promulgated or approved thereunder.

(ii) Other than those that are or were stored, used or disposed of in compliance with applicable law, no Hazardous Materials are contained on or about any real property currently owned, leased or used by the Company or any of its Subsidiaries, and no Hazardous Materials were released on or about any real property previously owned, leased or used by the Company or any of its Subsidiaries during the period the property was owned, leased or used by the Company or any of its Subsidiaries, except in the normal course of the Company’s or any of its Subsidiaries’ business.

(iii) There are no underground storage tanks on or under any real property owned, leased or used by the Company or any of its Subsidiaries that are not in compliance with applicable law.

t. **Title to Property.** Except as disclosed in the SEC Documents the Company and its Subsidiaries have good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by them which is material to the business of the Company and its Subsidiaries, in each case free and clear of all liens, encumbrances and defects or such as would not have a Material Adverse Effect. Any real property and facilities held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as would not have a Material Adverse Effect.

u. **Internal Accounting Controls.** Except as disclosed in the SEC Documents the Company and each of its Subsidiaries maintain a system of internal accounting controls sufficient, in the judgment of the Company’s board of directors, to provide reasonable assurance that (i) transactions are executed in accordance with management’s general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management’s general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

v. **Foreign Corrupt Practices.** Neither the Company, nor any of its Subsidiaries, nor any director, officer, agent, employee or other person acting on behalf of the Company or any Subsidiary has, in the course of his actions for, or on behalf of, the Company, used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; violated or is in violation of
any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

w. **Solvency.** The Company (after giving effect to the transactions contemplated by this Agreement) is solvent (i.e., its assets have a fair market value in excess of the amount required to pay its probable liabilities on its existing debts as they become absolute and matured) and currently the Company has no information that would lead it to reasonably conclude that the Company would not, after giving effect to the transaction contemplated by this Agreement, have the ability to, nor does it intend to take any action that would impair its ability to, pay its debts from time to time incurred in connection therewith as such debts mature. The Company did not receive a qualified opinion from its auditors with respect to its most recent fiscal year end and, after giving effect to the transactions contemplated by this Agreement, does not anticipate or know of any basis upon which its auditors might issue a qualified opinion in respect of its current fiscal year. For the avoidance of doubt any disclosure of the Borrower’s ability to continue as a “going concern” shall not, by itself, be a violation of this Section 3(w).

x. **No Investment Company.** The Company is not, and upon the issuance and sale of the Securities as contemplated by this Agreement will not be an “investment company” required to be registered under the Investment Company Act of 1940 (an “Investment Company”). The Company is not controlled by an Investment Company.

y. **Insurance.** The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged. Neither the Company nor any such Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect. Upon written request the Company will provide to the Buyer true and correct copies of all policies relating to directors’ and officers’ liability coverage, errors and omissions coverage, and commercial general liability coverage.

z. **Bad Actor.** No officer or director of the Company would be disqualified under Rule 506(d) of the Securities Act as amended on the basis of being a “bad actor” as that term is established in the September 19, 2013 Small Entity Compliance Guide published by the SEC.

aa. **Shell Status.** The Company represents that it is not a “shell” issuer and has never been a “shell” issuer, or that if it previously has been a “shell” issuer, that at least twelve (12) months have passed since the Company has reported Form 10 type information indicating that it is no longer a “shell” issuer. Further, the Company will instruct its counsel to either (i) write a 144-3(a)(9) opinion to allow for salability of the Conversion Shares or (ii) accept such opinion from Holder’s counsel.
bb. **No-Off Balance Sheet Arrangements.** There is no transaction, arrangement, or other relationship between the Company or any of its Subsidiaries and an unconsolidated or other off balance sheet entity that is required to be disclosed by the Company in its 1934 Act filings and is not so disclosed or that otherwise could be reasonably likely to have a Material Adverse Effect.

c. **Manipulation of Price.** The Company has not, and to its knowledge no one acting on its behalf has: (i) taken, directly or indirectly, any action designed to cause or to result, or that could reasonably be expected to cause or result, in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any person any compensation for soliciting another to purchase any other securities of the Company.

dd. **Sarbanes-Oxley Act.** The Company and each Subsidiary is in material compliance with all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and all applicable rules and regulations promulgated by the SEC thereunder that are effective as of the date hereof.

ee. **Employee Relations.** Neither the Company nor any of its Subsidiaries is a party to any collective bargaining agreement or employs any member of a union. The Company believes that its and its Subsidiaries’ relations with their respective employees are good. No executive officer (as defined in Rule 501(f) promulgated under the 1933 Act) or other key employee of the Company or any of its Subsidiaries has notified the Company or any such Subsidiary that such officer intends to leave the Company or any such Subsidiary or otherwise terminate such officer’s employment with the Company or any such Subsidiary. To the knowledge of the Company, no executive officer or other key employee of the Company or any of its Subsidiaries is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement, non-competition agreement, or any other contract or agreement or any restrictive covenant, and the continued employment of each such executive officer or other key employee (as the case may be) does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all federal, state, local and foreign laws and regulations respecting labor, employment and employment practices and benefits, terms and conditions of employment and wages and hours, except where failure to be in compliance would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

ff. **Breach of Representations and Warranties by the Company.** The Company agrees that if the Company breaches any of the representations or warranties set forth in this Section 3, and in addition to any other remedies available to the Buyer pursuant to this Agreement and it being considered an Event of Default under Section 3.5 of the Note, the Company shall pay to the Buyer the Standard Liquidated Damages Amount in cash or in shares of Common
Stock at the option of the Company, until such breach is cured. If the Company elects to pay the Standard Liquidated Damages Amounts in shares of Common Stock, such shares shall be issued at the Conversion Price at the time of payment.

4. **COVENANTS.**

   a. **Best Efforts.** The parties shall use their commercially reasonable best efforts to satisfy timely each of the conditions described in Section 7 and 8 of this Agreement.

   b. **Form D; Blue Sky Laws.** If legally necessary, the Company agrees to file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof to the Buyer promptly after such filing. If legally necessary, the Company shall, on or before the Closing Date, take such action as the Company shall reasonably determine is necessary to qualify the Securities for sale to the Buyer at the applicable closing pursuant to this Agreement under applicable securities or "blue sky" laws of the states of the United States (or to obtain an exemption from such qualification), and shall provide evidence of any such action so taken to the Buyer on or prior to the Closing Date.

   c. **Use of Proceeds.** The Company shall use the proceeds from the sale of the Note for working capital and other general corporate purposes and shall not, directly or indirectly, use such proceeds for any loan to or investment in any other corporation, partnership, enterprise or other person (except in connection with its currently existing direct or indirect Subsidiaries).

   d. **Intentionally Omitted.**

   e. **Expenses.** The Company shall reimburse Buyer for any and all expenses incurred by them in connection with the negotiation, preparation, execution, delivery and performance of this Agreement and the other agreements to be executed in connection herewith ("Documents"), including, without limitation, reasonable attorneys’ and consultants’ fees and expenses, transfer agent fees, fees for stock quotation services, fees relating to any amendments or modifications of the Documents or any consents or waivers of provisions in the Documents, fees for the preparation of opinions of counsel, escrow fees, and costs of restructuring the transactions contemplated by the Documents. When possible, the Company must pay these fees directly, including, but not limited to, any and all wire fees, otherwise the Company must make immediate payment for reimbursement to the Buyer for all fees and expenses immediately upon written notice by the Buyer or the submission of an invoice by the Buyer. At Closing, the Company’s initial obligation with respect to this transaction is to reimburse Buyer’s legal expenses shall be $5,000.00 plus the cost of wire fees.

   f. **Financial Information.** The Company agrees to send or make available the following reports to the Buyer until the Buyer transfers, assigns, or sells all of the Securities:

      (i) within ten (10) days after the filing with the SEC, a copy of its Annual Report on Form 10-K.
its Quarterly Reports on Form 10-Q and any Current Reports on Form 8-K; (ii) within one (1) day after release, copies of all press releases issued by the Company or any of its Subsidiaries; and (iii) contemporaneously with the making available or giving to the shareholders of the Company, copies of any notices or other information the Company makes available or gives to such shareholders. For the avoidance of doubt, filing the documents required in (i) above via EDGAR or releasing any documents set forth in (ii) above via a recognized wire service shall satisfy the delivery requirements of this Section 4(f).

g. **Listing.** The Company shall promptly secure the listing of the Conversion Shares upon each national securities exchange or automated quotation system, if any, upon which shares of Common Stock are then listed (subject to official notice of issuance) and, so long as the Buyer owns any of the Securities, shall maintain, so long as any other shares of Common Stock shall be so listed, such listing of all Conversion Shares from time to time issuable upon conversion of the Note. The Company will obtain and, so long as the Buyer owns any of the Securities, maintain the listing and trading of its Common Stock on the OTC Pink, OTCQB or any equivalent replacement exchange, the Nasdaq National Market ("Nasdaq"), the Nasdaq SmallCap Market ("Nasdaq SmallCap"), the New York Stock Exchange ("NYSE"), or the NYSE American and will comply in all respects with the Company’s reporting, filing and other obligations under the bylaws or rules of the Financial Industry Regulatory Authority ("FINRA") and such exchanges, as applicable. The Company shall promptly provide to the Buyer copies of any material notices it receives from the OTC Pink, OTCQB and any other exchanges or quotation systems on which the Common Stock is then listed regarding the continued eligibility of the Common Stock for listing on such exchanges and quotation systems. The Company shall pay any and all fees and expenses in connection with satisfying its obligation under this Section 4(g).

h. **Corporate Existence.** So long as the Buyer beneficially owns any Note, the Company shall maintain its corporate existence and shall not sell all or substantially all of the Company’s assets, except in the event of a merger or consolidation or sale of all or substantially all of the Company’s assets, where the surviving or successor entity in such transaction (i) assumes the Company’s obligations hereunder and under the agreements and instruments entered into in connection herewith and (ii) is a publicly traded corporation whose Common Stock is listed for trading on the OTC Pink, OTCQB, Nasdaq, NasdaqSmallCap, NYSE or AMEX.

i. **No Integration.** The Company shall not make any offers or sales of any security (other than the Securities) under circumstances that would require registration of the Securities being offered or sold hereunder under the 1933 Act or cause the offering of the Securities to be integrated with any other offering of securities by the Company for the purpose of any stockholder approval provision applicable to the Company or its securities.

j. **Failure to Comply with the 1934 Act.** So long as the Buyer beneficially owns the Note, the Company shall comply with the reporting requirements of the 1934 Act; and the Company shall continue to be subject to the reporting requirements of the 1934 Act.
k. [Intentionally Omitted].

l. Restriction on Activities. Except for all published actions, including the spin-off of Antigen Express, Inc. d/b/a NuGenerex Immunoncology, commencing as of the date first above written, and until the sooner of the six month anniversary of the date first written above or payment of the Note in full, or full conversion of the Note, the Company shall not, directly or indirectly, without the Buyer’s prior written consent, which consent shall not be unreasonably withheld: (a) change the nature of its business or (b) sell, divest, acquire, change the structure of any material assets other than in the ordinary course of business, if the result of such action would cause the Borrower to become a shell company for purposes of Rule 144.

m. Legal Counsel Opinions. Upon the request of the Buyer from time to time, the Company shall be responsible (at Buyer’s cost) for promptly supplying to the Company’s transfer agent and the Buyer a customary legal opinion letter of its counsel (the “Legal Counsel Opinion”) to the effect that the sale of Conversion Shares by the Buyer or its affiliates, successors and assigns is exempt from the registration requirements of the 1933 Act pursuant to Rule 144 (provided the requirements of Rule 144 are satisfied and provided the Conversion Shares are not then registered under the 1933 Act for resale pursuant to an effective registration statement). Should the Company’s legal counsel fail for any reason to issue the Legal Counsel Opinion, the Buyer may (at the Buyer’s cost) secure another legal counsel to issue the Legal Counsel Opinion, and the Company will instruct its transfer agent to accept such opinion.

n. Par Value. If the closing bid price at any time the Note is outstanding falls below $0.001, the Company shall cause the par value of its Common Stock to be reduced to $0.00001 or less.

o. Breach of Covenants. The Company agrees that if the Company breaches any of the covenants set forth in this Section 4, and in addition to any other remedies available to the Buyer pursuant to this Agreement, it will be considered an Event of Default under Section 3.4 of the Note, the Company shall pay to the Buyer the Standard Liquidated Damages Amount in cash or in shares of Common Stock at the option of the Buyer, until such breach is cured, or with respect to Section 4(d) above, the Company shall pay to the Buyer the Standard Liquidated Damages Amount in cash or shares of Common Stock, at the option of the Buyer, upon each violation of such provision. If the Company elects to pay the Standard Liquidated Damages Amount in shares of Common Stock, such shares shall be issued at the Conversion Price at the time of payment.

5. Transaction Expense Amount. Upon Closing, the Company shall pay Ninety Five Thousand and 00/100 United States Dollars (US$95,000.00) to Auctus Fund Management, LLC (“Auctus Management”) to cover the Holder’s due diligence, monitoring, and other transaction costs incurred for services rendered in connection herewith (the “Transaction Expense Amount”). The Transaction Expense Amount shall be offset against the proceeds of the Note and shall be paid to Auctus Management upon the execution hereof.
6. **Transfer Agent Instructions.** The Company shall issue irrevocable instructions to its transfer agent to issue certificates, registered in the name of the Buyer or its nominee, for the Conversion Shares in such amounts as specified from time to time by the Buyer to the Company upon conversion of the Note in accordance with the terms thereof (the “Irrevocable Transfer Agent Instructions”). In the event that the Borrower proposes to replace its transfer agent, the Borrower shall provide, prior to the effective date of such replacement, a fully executed Irrevocable Transfer Agent Instructions in a form as initially delivered pursuant to the Purchase Agreement (including but not limited to the provision to irrevocably reserve shares of Common Stock in the Reserved Amount) signed by the successor transfer agent to Borrower and the Borrower.

Prior to registration of the Conversion Shares under the 1933 Act or the date on which the Conversion Shares may be sold pursuant to Rule 144 without any restriction as to the number of Securities as of a particular date that can then be immediately sold, all such certificates shall bear the restrictive legend specified in Section 2(g) of this Agreement. The Company warrants that: (i) no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section, and stop transfer instructions to give effect to Section 2(f) hereof (in the case of the Conversion Shares, prior to registration of the Conversion Shares under the 1933 Act or the date on which the Conversion Shares may be sold pursuant to Rule 144 without any restriction as to the number of Securities as of a particular date that can then be immediately sold), will be given by the Company to its transfer agent and that the Securities shall otherwise be freely transferable on the books and records of the Company as and to the extent provided in this Agreement and the Note; (ii) it will not direct its transfer agent not to transfer or delay, impair, and/or hinder its transfer agent in transferring (or issuing) (electronically or in certificated form) any certificate for Conversion Shares to be issued to the Buyer upon conversion of or otherwise pursuant to the Note as and when required by the Note and this Agreement; and (iii) it will not fail to remove (or directs its transfer agent not to remove or impairs, delays, and/or hinders its transfer agent from removing) any restrictive legend (or to withdraw any stop transfer instructions in respect thereof) on any certificate for any Conversion Shares issued to the Buyer upon conversion of or otherwise pursuant to the Note as and when required by the Note and this Agreement. Nothing in this Section shall affect in any way the Buyer’s obligations and agreement set forth in Section 2(g) hereof to comply with all applicable prospectus delivery requirements, if any, upon re-sale of the Securities. If the Buyer provides the Company, at the cost of the Company, with (i) an opinion of counsel in form, substance and scope customary for opinions in comparable transactions, to the effect that a public sale or transfer of such Securities may be made without registration under the 1933 Act and such sale or transfer is effected or (ii) the Buyer provides reasonable assurances that the Securities can be sold pursuant to Rule 144, the Company shall permit the transfer, and, in the case of the Conversion Shares, promptly instruct its transfer agent to issue one or more certificates, free from restrictive legend, in such name and in such denominations as specified by the Buyer. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Buyer, by vitiating the intent and purpose of the transactions contemplated hereby. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Section may be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Section, that the Buyer shall be entitled, in
addition to all other available remedies, to an injunction restraining any breach and requiring immediate transfer, without the necessity of showing economic loss and without any bond or other security being required.

7. **CONDITIONS PRECEDENT TO THE COMPANY’S OBLIGATIONS TO SELL.** The obligation of the Company hereunder to issue and sell the Note to the Buyer at the Closing is subject to the satisfaction, at or before the Closing Date of each of the following conditions thereto, provided that these conditions are for the Company’s sole benefit and may be waived by the Company at any time in its sole discretion:

   a. The Buyer shall have executed this Agreement and delivered the same to the Company.

   b. The Buyer shall have delivered the Purchase Price in accordance with Section 1(b) above.

   c. The representations and warranties of the Buyer shall be true and correct in all material respects as of the date when made and as of the Closing Date as though made at that time (except for representations and warranties that speak as of a specific date), and the Buyer shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Buyer at or prior to the Closing Date.

   d. No litigation, statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by or in any court or governmental authority of competent jurisdiction or any self-regulatory organization having authority over the matters contemplated hereby which prohibits the consummation of any of the transactions contemplated by this Agreement.

8. **CONDITIONS PRECEDENT TO THE BUYER’S OBLIGATION TO PURCHASE.** The obligation of the Buyer hereunder to purchase the Note at the Closing is subject to the satisfaction, at or before the Closing Date of each of the following conditions, provided that these conditions are for the Buyer’s sole benefit and may be waived by the Buyer at any time in its sole discretion:

   a. The Company shall have executed this Agreement and delivered the same to the Buyer.

   b. The Company shall have delivered to the Buyer the duly executed Note (in such denominations as the Buyer shall request) and in accordance with Section 1(b) above.
c. The Irrevocable Transfer Agent Instructions, in form and substance satisfactory to a majority-in-interest of the Buyer, shall have been
delivered to and acknowledged in writing by the Company’s Transfer Agent.

d. The representations and warranties of the Company shall be true and correct in all material respects as of the date when made and as of the
Closing Date as though made at such time (except for representations and warranties that speak as of a specific date) and the Company shall have performed, satisfied and
complied in all material respects with the covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company at or
prior to the Closing Date. The Buyer shall have received a certificate or certificates, executed by the chief executive officer of the Company, dated as of the Closing Date, to
the foregoing effect and as to such other matters as may be reasonably requested by the Buyer including, but not limited to certificates with respect to the Company’s
Certificate of Incorporation, By-laws and Board of Directors’ resolutions relating to the transactions contemplated hereby.

e. No litigation, statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or
endorsed by or in any court or governmental authority of competent jurisdiction or any self-regulatory organization having authority over the matters contemplated hereby
which prohibits the consummation of any of the transactions contemplated by this Agreement.

f. No event shall have occurred which could reasonably be expected to have a Material Adverse Effect on the Company including but not
limited to a change in the 1934 Act reporting status of the Company or the failure of the Company to be timely in its 1934 Act reporting obligations.

g. The Conversion Shares shall have been authorized for quotation on the OTC Pink, OTCQB or any similar quotation system and trading in
the Common Stock on the OTC Pink, OTCQB or any similar quotation system shall not have been suspended by the SEC or the OTC Pink, OTCQB or any similar quotation
system.

h. The Buyer shall have received an officer’s certificate described in Section 3(c) above, dated as of the Closing Date.

9. GOVERNING LAW; MISCELLANEOUS.

a. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Nevada without regard to
principles of conflicts of laws. Any action brought by either party against the other concerning the transactions contemplated by this Agreement, the Note or any other
agreement, certificate, instrument or document contemplated hereby shall be brought only in the state courts located in the Commonwealth of Massachusetts or in the federal
courts located in the Commonwealth of
Massachusetts. The parties to this Agreement hereby irrevocably waive any objection to jurisdiction and venue of any action instituted hereunder and shall not assert any defense based on lack of jurisdiction or venue or based upon forum non conveniens. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR UNDER ANY OTHER TRANSACTION DOCUMENT OR IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT, ANY OTHER TRANSACTION DOCUMENT OR ANY TRANSACTION CONTEMPLATED HEREBY OR THEREBY. The prevailing party shall be entitled to recover from the other party its reasonable attorney's fees and costs. In the event that any provision of this Agreement or any other agreement delivered in connection herewith is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any such provision which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision of any agreement. Each party hereby irrevocably waives personal service of process and consents to process being served in any suit, action or proceeding in connection with this Agreement or any other Transaction Document by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law.

b. Counterparts; Signatures by Facsimile. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party. This Agreement, once executed by a party, may be delivered to the other party hereto by facsimile transmission of a copy of this Agreement bearing the signature of the party so delivering this Agreement.

c. Construction; Headings. This Agreement shall be deemed to be jointly drafted by the Company and the Buyer and shall not be construed against any person as the drafter hereof. The headings of this Agreement are for convenience of reference only and shall not form part of, or affect the interpretation of, this Agreement.

d. Severability. In the event that any provision of this Agreement is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any provision hereof which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision hereof.

e. Entire Agreement; Amendments. This Agreement, the Note and the instruments referenced herein contain the entire understanding of the parties with respect to the
matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor the Buyer makes any representation, warranty, covenant or undertaking with respect to such matters. No provision of this Agreement may be waived or amended other than by an instrument in writing signed by the majority in interest of the Buyer.

f. Notices. All notices, demands, requests, consents, approvals, and other communications required or permitted hereunder shall be in writing and, unless otherwise specified herein, shall be (i) personally served, (ii) deposited in the mail, registered or certified, return receipt requested, postage prepaid, (iii) delivered by reputable air courier service with charges prepaid, or (iv) transmitted by hand delivery, telegram, email, or facsimile, addressed as set forth below or to such other address as such party shall have specified most recently by written notice. Any notice or other communication required or permitted to be given hereunder shall be deemed effective (a) upon hand delivery or delivery by email or facsimile, with accurate confirmation generated by the transmitting facsimile machine, at the address or number designated below (if delivered on a business day during normal business hours where such notice is to be received), or the first business day following such delivery (if delivered other than on a business day during normal business hours where such notice is to be received) or (b) on the second business day following the date of mailing by express courier service, fully prepaid, addressed to such address, or upon actual receipt of such mailing, whichever shall first occur. The addresses for such communications shall be:

If to the Company, to:

Generex Biotechnology Corporation 10102 USA Today Way
Miramar, FL 33025 Attn: Joseph Moscato
E-mail: jmoscato@nugenerex.com

If to the Buyer:

Auctus Fund, LLC
545 Boylston Street, 2nd Floor Boston, MA 02116
Attn: Lou Posner
Facsimile:

With a copy to (which copy shall not constitute notice): Chad Friend, Esq., LL.M.
Anthony L.G., PLLC
625 N. Flagler Drive, Suite 600 West Palm Beach, FL 33401
E-mail

Each party shall provide notice to the other party of any change in address.

g. **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the parties and their successors and assigns. Neither the Company nor the Buyer shall assign this Agreement or any rights or obligations hereunder without the prior written consent of the other. Notwithstanding the foregoing, subject to Section 2(f), the Buyer may assign its rights hereunder to any person that purchases Securities in a private transaction from the Buyer or to any of its “affiliates,” as that term is defined under the 1934 Act, without the consent of the Company.

h. **Third Party Beneficiaries.** This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other person.

i. **Survival.** The representations and warranties of the Company and the agreements and covenants set forth in this Agreement shall survive the closing hereunder notwithstanding any due diligence investigation conducted by or on behalf of the Buyer. The Company agrees to indemnify and hold harmless the Buyer and all their officers, directors, employees and agents for loss or damage arising as a result of or related to any breach or alleged breach by the Company of any of its representations, warranties and covenants set forth in this Agreement or any of its covenants and obligations under this Agreement, including advancement of expenses as they are incurred.

j. **Further Assurances.** Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

k. **No Strict Construction.** The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

l. **Remedies.** The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Buyer by vitiating the intent and purpose of the transaction contemplated hereby. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Agreement will be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Agreement, that the Buyer shall be entitled, in addition to all other available remedies at law or in equity, and in addition to the penalties assessable herein, to an injunction or injunctions restraining, preventing or curing any breach of this Agreement and to enforce specifically the terms and provisions hereof,
without the necessity of showing economic loss and without any bond or other security being required.

m. **Publicity.** The Company, and the Buyer shall have the right to review a reasonable period of time before issuance of any press releases, SEC, OTCQB or FINRA filings, or any other public statements with respect to the transactions contemplated hereby; provided, however, that the Company shall be entitled, without the prior approval of the Buyer, to make any press release or SEC, OTCQB (or other applicable trading market) or FINRA filings with respect to such transactions as is required by applicable law and regulations (although the Buyer shall be consulted by the Company in connection with any such press release prior to its release and shall be provided with a copy thereof and be given an opportunity to comment thereon).

n. **Indemnification.** In consideration of the Buyer’s execution and delivery of this Agreement and acquiring the Securities hereunder, and in addition to all of the Company’s other obligations under this Agreement or the Note, the Company shall defend, protect, indemnify and hold harmless the Buyer and its stockholders, partners, members, officers, directors, employees and direct or indirect investors and any of the foregoing persons’ agents or other representatives (including, without limitation, those retained in connection with the transactions contemplated by this Agreement) (collectively, the “Indemnitees”) from and against any and all actions, causes of action, suits, claims, losses, costs, penalties, fees, liabilities and damages, and expenses in connection therewith (irrespective of whether any such Indemnitee is a party to the action for which indemnification hereunder is sought), and including reasonable attorneys’ fees and disbursements (the “Indemnified Liabilities”), incurred by any Indemnitee as a result of, or arising out of, or relating to (a) any misrepresentation or breach of any representation or warranty made by the Company in this Agreement or the Note or any other agreement, certificate, instrument or document contemplated hereby or thereby, (b) any breach of any covenant, agreement or obligation of the Company contained in this Agreement or the Note or any other agreement, certificate, instrument or document contemplated hereby or thereby or (c) any cause of action, suit or claim brought or made against such Indemnitee by a third party (including for these purposes a derivative action brought on behalf of the Company) and arising out of or resulting from (i) the execution, delivery, performance or enforcement of this Agreement or the Note or any other agreement, certificate, instrument or document contemplated hereby or thereby, (ii) any transaction financed or to be financed in whole or in part, directly or indirectly, with the proceeds of the issuance of the Securities, or (iii) the status of the Buyer or holder of the Securities as an investor in the Company pursuant to the transactions contemplated by this Agreement. To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities that is permissible under applicable law.
IN WITNESS WHEREOF, the undersigned Buyer and the Company have caused this Agreement to be duly executed as of the date first above written.

GENEREX BIOTECHNOLOGY CORPORATION

By: /s/ Joseph Moscato  
Name: Joseph Moscato  
Title: Chief Executive Officer

AUCTUS FUND, LLC

By: /s/ Lou Posner  
Name: Lou Posner  
Title: Managing Director

AGGREGATE SUBSCRIPTION AMOUNT:

Aggregate Principal Amount of Note: US$1,100,000.00  
Aggregate Purchase Price: US$1,100,000.00
REGISTRATION RIGHTS AGREEMENT

REGISTRATION RIGHTS AGREEMENT (this "Agreement"), dated as of August 14, 2019, by and between GENEREX BIOTECHNOLOGY CORPORATION, a Delaware corporation (the "Company"), and AUCTUS FUND, LLC, a Delaware limited liability company (together with it permitted assigns, the "Buyer"). Capitalized terms used herein and not otherwise defined herein shall have the respective meanings set forth in the securities purchase agreement by and between the parties hereof, dated as of the date hereof (as amended, restated, supplemented or otherwise modified from time to time, the "Purchase Agreement").

WHEREAS:

The Company has agreed, upon the terms and subject to the conditions of the Purchase Agreement, to sell to the Buyer that certain convertible promissory note in the principal amount of $1,100,000.00 (the "Note") and the Warrant (as defined in the Purchase Agreement) (the "Warrant") dated August 14, 2019, and to induce the Buyer to enter into the Purchase Agreement, the Company has agreed to provide certain registration rights under the Securities Act of 1933, as amended, and the rules and regulations thereunder, or any similar successor statute (collectively, the "Securities Act"), and applicable state securities laws.

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Buyer hereby agree as follows:

1. DEFINITIONS.

As used in this Agreement, the following terms shall have the following meanings:

a. "Investor" means the Buyer, any transferee or assignee thereof to whom a Buyer assigns its rights under this Agreement in accordance with Section 9 and who agrees to become bound by the provisions of this Agreement, and any transferee or assignee thereof to whom a transferee or assignee assigns its rights under this Agreement in accordance with Section 9 and who agrees to become bound by the provisions of this Agreement.

b. "Person" means any individual or entity including but not limited to any corporation, a limited liability company, an association, a partnership, an organization, a business, an individual, a governmental or political subdivision thereof or a governmental agency.

c. "Register," "registered," and "registration" refer to a registration effected by preparing and filing one or more registration statements of the Company in compliance with the Securities Act and/or pursuant to Rule 415 under the Securities Act or any successor rule providing for offering securities on a continuous basis ("Rule 415"), and the declaration or ordering of effectiveness of such registration statement(s) by the United States Securities and Exchange Commission (the "SEC").

d. "Registrable Securities" means all of the shares of Common Stock into which the Warrant is exercisable into, which have been, or which may, from time to time be issued, including without limitation all of the shares of common stock which have been issued or will be issued to the Investor under the Purchase Agreement (without regard to any limitation or restriction on purchases), shares of common stock issued to the Investor as a result of any stock split, stock dividend, recapitalization, exchange or similar event or otherwise, without regard to any limitation on purchases under the Purchase Agreement.
c. The "Registration Statement" means one or more registration statements of the Company covering only the sale of the Registrable Securities.

2. REGISTRATION.

a. Mandatory Registration. The Company shall, within sixty (60) calendar days from the date hereof, file with the SEC an initial Registration Statement covering the maximum number of Registrable Securities as shall be permitted to be included thereon in accordance with applicable SEC rules, regulations and interpretations so as to permit the resale of such Registrable Securities by the Investor, including but not limited to under Rule 415 under the Securities Act (with the understanding that the minimum number of shares of Common Stock under the Warrant to be registered shall be 55,714 shares of Common Stock) at then prevailing market prices (and not fixed prices), as mutually determined by both the Company and the Investor in consultation with their respective legal counsel, subject to the aggregate number of authorized shares of the Company’s Common Stock then available for issuance in its Certificate of Incorporation. The Investor and its counsel shall have a reasonable opportunity to review and comment upon such Registration Statement and any amendment or supplement to such Registration Statement and any related prospectus prior to its filing with the SEC, and the Company shall give due consideration to all reasonable comments. The Investor shall furnish all information reasonably requested by the Company for inclusion therein. The Company shall have the Registration Statement and any amendment declared effective by the SEC at the earliest possible date. The Company shall keep the Registration Statement effective, including but not limited to pursuant to Rule 415 promulgated under the Securities Act and available for the resale by the Investor of all of the Registrable Securities covered thereby at all times until the earlier of (i) the date as of which the Investor may sell all of the Registrable Securities without restriction pursuant to Rule 144 promulgated under the Securities Act and (ii) the date on which the Investor shall have sold all the Registrable Securities covered thereby (the "Registration Period"). The Registration Statement (including any amendments or supplements thereto and prospectuses contained therein) shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading.

b. Rule 424 Prospectus. The Company shall, as required by applicable securities regulations, from time to time file with the SEC, pursuant to Rule 424 promulgated under the Securities Act, the prospectus and prospectus supplements, if any, to be used in connection with sales of the Registrable Securities under the Registration Statement. The Investor shall use its reasonable best efforts to comment upon such prospectus within one (1) Business Day from the date the Investor receives the final pre-filing version of such prospectus.

c. Sufficient Number of Shares Registered. In the event the number of shares available under the Registration Statement is insufficient to cover all of the Registrable Securities, the Company shall amend the Registration Statement or file a new Registration Statement (a "New Registration Statement"), so as to cover all of such Registrable Securities (subject to the limitations set forth in Section 2(a)) as soon as practicable, but in any event not later than ten (10) Business Days after the necessity therefor arises, subject to any limits that may be imposed by the SEC pursuant to Rule 415 under the Securities Act (with the understanding that this process shall be repeated until the Warrant is exercised in full). The Company shall use its reasonable best efforts to cause such amendment and/or New Registration Statement to become effective as soon as practicable following the filing thereof. In the event that any of the Registrable Securities are not included in the Registration Statement, or have not been included in any New Registration Statement and the Company files any other registration statement under the Securities Act (other than on Form S-4, Form S-8, or with respect to other employee related interests), the Company shall, as required by applicable securities regulations, from time to time file with the SEC, pursuant to Rule 424 promulgated under the Securities Act, the prospectus and prospectus supplements, if any, to be used in connection with sales of the Registrable Securities under the Registration Statement. The Investor shall use its reasonable best efforts to comment upon such prospectus within one (1) Business Day from the date the Investor receives the final pre-filing version of such prospectus.

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plans or rights offerings) ("Other Registration Statement") then the Company shall include such remaining Registrable Securities in such Other Registration Statement.

d. **Offering.** If the staff of the SEC (the "Staff") or the SEC seeks to characterize any offering pursuant to a Registration Statement filed pursuant to this Agreement as constituting an offering of securities that does not permit such Registration Statement to become effective and be used for resales by the Investor under Rule 415 at then-prevailing market prices (and not fixed prices), or if after the filing of the initial Registration Statement with the SEC pursuant to Section 2(a), the Company is otherwise required by the Staff or the SEC to reduce the number of Registrable Securities included in such initial Registration Statement, then the Company shall reduce the number of Registrable Securities to be included in such initial Registration Statement until such time as the Staff and the SEC shall so permit such Registration Statement to become effective and be used as aforesaid. In the event of any reduction in Registrable Securities pursuant to this paragraph, the Company shall file one or more New Registration Statements in accordance with Section 2(c) until such time as all Registrable Securities have been included in Registration Statements that have been declared effective and the prospectus contained therein is available for use by the Investor. Notwithstanding any provision herein or in the Purchase Agreement to the contrary, the Company’s obligations to register Registrable Securities (and any related conditions to the Investor’s obligations) shall be qualified as necessary to comport with any requirement of the SEC or the Staff as addressed in this Section 2(d).

3. **RELATED OBLIGATIONS.**

With respect to the Registration Statement and whenever any Registrable Securities are to be registered pursuant to Section 2 including on any New Registration Statement, the Company shall use its reasonable best efforts to effect the registration of the Registrable Securities in accordance with the intended method of disposition thereof and, pursuant thereto, the Company shall have the following obligations:

a. The Company shall prepare and file with the SEC such amendments (including post-effective amendments) and supplements to any registration statement and the prospectus used in connection with such registration statement, which prospectus is to be filed pursuant to Rule 424 promulgated under the Securities Act, as may be necessary to keep the Registration Statement or any New Registration Statement effective at all times during the Registration Period, and, during such period, comply with the provisions of the Securities Act with respect to the disposition of all Registrable Securities of the Company covered by the Registration Statement or any New Registration Statement until such time as all of such Registrable Securities shall have been disposed of in accordance with the intended methods of disposition by the seller or sellers thereof as set forth in such registration statement.

b. [Intentionally Omitted].

c. Upon request of the Investor, the Company shall furnish to the Investor, (i) promptly after the same is prepared and filed with the SEC, at least one copy of such registration statement and any amendment(s) thereto, including financial statements and schedules, all documents incorporated therein by reference and all exhibits, (ii) upon the effectiveness of any registration statement, a copy of the prospectus included in such registration statement and all amendments and supplements thereto (or such other number of copies as the Investor may reasonably request) and (iii) such other documents, including copies of any preliminary or final prospectus, as the Investor may reasonably request from time to time in order to facilitate the disposition of the Registrable Securities owned by the Investor. For the avoidance of doubt, any filing available to the Investor via the SEC’s live EDGAR system shall be deemed “furnished to the Investor” hereunder.
d. If applicable and legally required, the Company shall use reasonable best efforts to (i) register and qualify the Registrable Securities covered by a registration statement under such other securities or "blue sky" laws of such jurisdictions in the United States as the Investor reasonably requests, (ii) prepare and file in those jurisdictions, such amendments (including post-effective amendments) and supplements to such registrations and qualifications as may be necessary to maintain the effectiveness thereof during the Registration Period, (iii) take such other actions as may be necessary to maintain such registrations and qualifications in effect at all times during the Registration Period, and (iv) take all other actions reasonably necessary or advisable to qualify the Registrable Securities for sale in such jurisdictions; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (x) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(d), (y) subject itself to general taxation in any such jurisdiction, or (z) file a general consent to service of process in any such jurisdiction. The Company shall promptly notify the Investor who holds Registrable Securities of the receipt by the Company of any notification with respect to the suspension of the registration or qualification of any of the Registrable Securities for sale under the securities or "blue sky" laws of any jurisdiction in the United States or its receipt of actual notice of the initiation or threatening of any proceeding for such purpose.

e. As promptly as practicable after becoming aware of such event or facts, the Company shall notify the Investor in writing of the happening of any event or existence of such facts as a result of which the prospectus included in any registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and promptly prepare a supplement or amendment to such registration statement to correct such untrue statement or omission, and deliver a copy of such supplement or amendment to the Investor (or such other number of copies as the Investor may reasonably request). The Company shall also promptly notify the Investor in writing (i) when a prospectus or any prospectus supplement or post-effective amendment has been filed, and when a registration statement or any post-effective amendment has become effective (notification of such effectiveness shall be delivered to the Investor by email or facsimile on the same day of such effectiveness and by overnight mail), (ii) of any request by the SEC for amendments or supplements to any registration statement or related prospectus or related information, and (iii) of the Company's reasonable determination that a post-effective amendment to a registration statement would be appropriate.

f. The Company shall use its reasonable best efforts to prevent the issuance of any stop order or other suspension of effectiveness of any registration statement, or the suspension of the qualification of any Registrable Securities for sale in any jurisdiction and, if such an order or suspension is issued, to obtain the withdrawal of such order or suspension at the earliest possible moment and to notify the Investor of the issuance of such order and the resolution thereof or its receipt of actual notice of the initiation or threat of any proceeding for such purpose.

g. The Company shall (i) cause all the Registrable Securities to be listed on each securities exchange on which securities of the same class or series issued by the Company are then listed, if any, if the listing of such Registrable Securities is then permitted under the rules of such exchange, or (ii) secure designation and quotation of all the Registrable Securities on the Principal Market. The Company shall pay all fees and expenses in connection with satisfying its obligation under this Section.

h. The Company shall cooperate with the Investor to facilitate the timely preparation and delivery of certificates (not bearing any restrictive legend) representing the Registrable Securities to be offered pursuant to any registration statement and enable such certificates to be in such denominations or amounts as the Investor may reasonably request and registered in such names as the Investor may request.
i. The Company shall at all times provide a transfer agent and registrar with respect to its Common Stock.

j. If reasonably requested by the Investor and deemed legally required by the Company, the Company shall (i) immediately incorporate in a prospectus supplement or post-effective amendment such information as the Investor believes should be included therein relating to the sale and distribution of Registrable Securities, including, without limitation, information with respect to the number of Registrable Securities being sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities; (ii) make all required filings of such prospectus supplement or post-effective amendment as soon as practicable upon notification of the matters to be incorporated in such prospectus supplement or post-effective amendment; and (iii) supplement or make amendments to any registration statement.

k. The Company shall use its reasonable best efforts to cause the Registrable Securities covered by any registration statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to consummate the disposition of such Registrable Securities.

l. Within three (3) Business Days after any registration statement which includes the Registrable Securities is ordered effective by the SEC, the Company shall deliver, and shall cause legal counsel for the Company to deliver, to the transfer agent for such Registrable Securities (with copies to the Investor) confirmation that such registration statement has been declared effective by the SEC in the form attached hereto as Exhibit A. Thereafter, if requested by the Buyer at any time, the Company shall require its counsel to deliver to the Buyer a written confirmation whether or not the effectiveness of such registration statement has lapsed at any time for any reason (including, without limitation, the issuance of a stop order) and whether or not the registration statement is current and available to the Buyer for sale of all of the Registrable Securities.

m. The Company shall take all other reasonable actions necessary to expedite and facilitate disposition by the Investor of Registrable Securities pursuant to any registration statement.

4. OBLIGATIONS OF THE INVESTOR

a. The Company shall notify the Investor in writing of the information the Company reasonably requires from the Investor in connection with any registration statement hereunder. The Investor shall furnish to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request.

b. The Investor agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of any registration statement hereunder.

c. The Investor agrees that, upon receipt of any notice from the Company of the happening of any event or existence of facts of the kind described in Section 3(f) or the first sentence of 3(e), the Investor will immediately discontinue disposition of Registrable Securities pursuant to any registration statement(s) covering such Registrable Securities until the Investor's receipt of the copies of the supplemented or amended prospectus contemplated by Section 3(f) or the first sentence of 3(e). Notwithstanding anything to the contrary, if legally permissible, the Company shall instruct its transfer agent to promptly deliver shares of Common Stock without any restrictive legend in accordance with the
terms of the Purchase Agreement in connection with any sale of Registrable Securities with respect to which an Investor has entered into a contract for sale prior to the Investor's receipt of a notice from the Company of the happening of any event of the kind described in Section 3(f) or the first sentence of Section 3(e) and for which the Investor has not yet settled.

5. **EXPENSES OF REGISTRATION.**

All reasonable expenses, other than sales or brokerage commissions, incurred in connection with registrations, filings or qualifications pursuant to Sections 2 and 3, including, without limitation, all registration, listing and qualifications fees, printers and accounting fees, and fees and disbursements of counsel for the Company, shall be paid by the Company.

6. **INDEMNIFICATION.**

a. To the fullest extent permitted by law, the Company will, and hereby does, indemnify, hold harmless and defend the Investor, each Person, if any, who controls the Investor, the members, the directors, officers, partners, employees, agents, representatives of the Investor and each Person, if any, who controls the Investor within the meaning of the Securities Act or the Securities Exchange Act of 1934, as amended (the "Exchange Act") (each, an "Indemnified Person"), against any losses, claims, damages, liabilities, judgments, fines, penalties, charges, costs, attorneys' fees, amounts paid in settlement or expenses, joint or several, (collectively, "Claims") incurred in investigating, preparing or defending any action, claim, suit, inquiry, proceeding, investigation or appeal taken from the foregoing by or before any court or governmental, administrative or other regulatory agency, body or the SEC, whether pending or threatened, whether or not an indemnified party is or may be a party thereto ("Indemnified Damages"), to which any of them may become subject insofar as such Claims (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in the Registration Statement, any New Registration Statement or any post-effective amendment thereto or in any filing made in connection with the qualification of the offering under the securities or other "blue sky" laws of any jurisdiction in which Registrable Securities are offered ("Blue Sky Filing"), or the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in the final prospectus (as amended or supplemented, if the Company files any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in light of the circumstances under which the statements therein were made, not misleading, (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the Registrable Securities pursuant to the Registration Statement or any New Registration Statement or (iv) any material violation by the Company of this Agreement (the matters in the foregoing clauses (i) through (iv) being, collectively, "Violations"). The Company shall reimburse each Indemnified Person promptly as such expenses are incurred and are due and payable, for any reasonable legal fees or other reasonable expenses incurred by them in connection with investigating or defending any such Claim. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this Section 6(a): (i) shall not apply to a Claim by an Indemnified Person arising out of or based upon a Violation which occurs in reliance upon and in conformity with information about the Investor furnished in writing to the Company by such Indemnified Person expressly for use in connection with the preparation of the Registration Statement, any New Registration Statement or any such amendment thereof or supplement thereto, if such prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e); (ii) with respect to any superseded prospectus, shall not inure to the benefit of any such person from whom the person asserting any such Claim purchased the Registrable Securities that are the subject thereof (or to the benefit of any person.
controlling such person) if the untrue statement or omission of material fact contained in the superseded prospectus was corrected in the revised prospectus, as then amended or supplemented, if such revised prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e), and the Indemnified Person was promptly advised in writing not to use the incorrect prospectus prior to the use giving rise to a violation and such Indemnified Person, notwithstanding such advice, used it; (iii) shall not be available to the extent such Claim is based on a failure of the Investor to deliver or to cause to be delivered the prospectus made available by the Company, if such prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e); and (iv) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of the Indemnified Person and shall survive the transfer of the Registrable Securities by the Investor pursuant to Section 9.

b. Promptly after receipt by an Indemnified Person or Indemnified Party under this Section 6 of notice of the commencement of any action or proceeding (including any governmental action or proceeding) involving a Claim, such Indemnified Person or Indemnified Party shall, if a Claim in respect thereof is to be made against any indemnifying party under this Section 6, deliver to the indemnifying party a written notice of the commencement thereof, and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume control of the defense thereof with counsel mutually satisfactory to the indemnifying party and the Indemnified Person or the Indemnified Party, as the case may be; provided, however, that an Indemnified Person or Indemnified Party shall have the right to retain its own counsel with the fees and expenses to be paid by the indemnifying party, if, in the reasonable opinion of counsel retained by the indemnifying party, the representation by such counsel of the Indemnified Person or Indemnified Party and the indemnifying party would be inappropriate due to actual or potential differing interests between such Indemnified Person or Indemnified Party and any other party represented by such counsel in such proceeding. The Indemnified Party or Indemnified Person shall cooperate fully with the indemnifying party in connection with any negotiation or defense of any such action or claim by the indemnifying party and shall furnish to the indemnifying party all information reasonably available to the Indemnified Party or Indemnified Person which relates to such action or claim. The indemnifying party shall keep the Indemnified Party or Indemnified Person fully apprised at all times as to the status of the defense or any settlement negotiations with respect thereto. No indemnifying party shall be liable for any settlement of any action, claim or proceeding effectuated without its written consent, provided, however, that the indemnifying party shall not unreasonably withhold, delay or condition its consent. No indemnifying party shall, without the consent of the Indemnified Party or Indemnified Person, consent to entry of any judgment or enter into any settlement or other compromise which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party or Indemnified Person of a release from all liability in respect to such claim or litigation. Following indemnification as provided for hereunder, the indemnifying party shall be subrogated to all rights of the Indemnified Party or Indemnified Person with respect to all third parties, firms or corporations relating to the matter for which indemnification has been made. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action shall not relieve such indemnifying party of any liability to the Indemnified Person or Indemnified Party under this Section 6, except to the extent that the indemnifying party is prejudiced in its ability to defend such action.

c. The indemnification required by this Section 6 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or Indemnified Damages are incurred.
d. The indemnity agreements contained herein shall be in addition to (i) any cause of action or similar right of the Indemnified Party or Indemnified Person against the indemnifying party or others, and (ii) any liabilities the indemnifying party may be subject to pursuant to the law.

7. CONTRIBUTION

To the extent any indemnification by an indemnifying party is prohibited or limited by law, the indemnifying party agrees to make the maximum contribution with respect to any amounts for which it would otherwise be liable under Section 6 to the fullest extent permitted by law; provided, however, that: (i) no seller of Registrable Securities guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any seller of Registrable Securities who was not guilty of fraudulent misrepresentation; and (ii) contribution by any seller of Registrable Securities shall be limited in amount to the net amount of proceeds received by such seller from the sale of such Registrable Securities.

8. REPORTS AND DISCLOSURE UNDER THE SECURITIES ACTS

With a view to making available to the Investor the benefits of Rule 144 promulgated under the Securities Act or any other similar rule or regulation of the SEC that may at any time permit the Investor to sell securities of the Company to the public without registration ("Rule 144"), the Company agrees, at the Company’s sole expense, to:

a. make and keep public information available, as those terms are understood and defined in Rule 144;

b. file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act so long as the Company remains subject to such requirements and the filing of such reports and other documents is required for the applicable provisions of Rule 144;

c. furnish to the Investor so long as the Investor owns Registrable Securities, promptly upon request, (i) a written statement by the Company that it has complied with the reporting and or disclosure provisions of Rule 144, the Securities Act and the Exchange Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested to permit the Investor to sell such securities pursuant to Rule 144 without registration; and

d. take such additional action as is requested by the Investor to enable the Investor to sell the Registrable Securities pursuant to Rule 144, including, without limitation, delivering all such legal opinions, consents, certificates, resolutions and instructions to the Company’s Transfer Agent as may be requested from time to time by the Investor and otherwise fully cooperate with Investor and Investor’s broker to effect such sale of securities pursuant to Rule 144.

The Company agrees that damages may be an inadequate remedy for any breach of the terms and provisions of this Section 8 and that Investor shall, whether or not it is pursuing any remedies at law, be entitled to equitable relief in the form of a preliminary or permanent injunctions, without having to post any bond or other security, upon any breach or threatened breach of any such terms or provisions.
9. ASSIGNMENT OF REGISTRATION RIGHTS

The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Investor.

10. AMENDMENT OF REGISTRATION RIGHTS

No provision of this Agreement may be amended or waived by the parties from and after the date that is one Business Day immediately preceding the initial filing of the Registration Statement with the SEC. Subject to the immediately preceding sentence, no provision of this Agreement may be (i) amended other than by a written instrument signed by both parties hereto or (ii) waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, shall not operate as a waiver thereof.

11. MISCELLANEOUS

a. A Person is deemed to be a holder of Registrable Securities whenever such Person owns or is deemed to own of record such Registrable Securities. If the Company receives conflicting instructions, notices or elections from two or more Persons with respect to the same Registrable Securities, the Company shall act upon the basis of instructions, notice or election received from the registered owner of such Registrable Securities.

b. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered:
   (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by facsimile or email; or (iii) one (1) Business Day after deposit with a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses for such communications shall be:

   If to the Company, to:
   
   GENEREX BIOTECHNOLOGY CORPORATION
   10102 USA Today Way Miramar, FL 33025 Attn: Joseph Moscato
   
   E-mail: jmoscato@nugenerex.com

   If to the Investor:
   
   AUCTUS FUND, LLC
   545 Boylston Street, 2nd Floor Boston, MA 02116
   Attn: Lou Posner Facsimile:

   or at such other address and/or facsimile number and/or to the attention of such other person as the recipient party has specified by written notice given to each other party three (3) Business Days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender's facsimile machine or email account containing the time, date, recipient facsimile number or email address, as applicable, and an image of the first page of such transmission or (C) provided by a
nationally recognized overnight delivery service, shall be rebuttable evidence of personal service, receipt by facsimile or receipt from a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

c. The corporate laws of the State of Nevada shall govern all issues concerning this Agreement. All other questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of Nevada, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Nevada or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Nevada. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the Commonwealth of Massachusetts, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HERUNDER OR IN CONNECTION HEREWITH OR ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREBY.

d. This Agreement and the Purchase Agreement constitute the entire agreement among the parties hereto with respect to the subject matter hereof and thereof. There are no restrictions, promises, warranties or undertakings, other than those set forth or referred to herein and therein. This Agreement and the Purchase Agreement supersede all prior agreements and understandings among the parties hereto with respect to the subject matter hereof and thereof.

e. Subject to the requirements of Section 9, this Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties hereto.

f. The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof.

g. This Agreement may be executed in identical counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement. This Agreement, once executed by a party, may be delivered to the other party hereto by facsimile transmission or by e-mail in a “.pdf” format data file of a copy of this Agreement bearing the signature of the party so delivering this Agreement.

h. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.
i. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent and no rules of strict construction will be applied against any party.

j. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

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IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of day and year first above written.

THE COMPANY:

GENEREX BIOTECHNOLOGY CORPORATION

Name: /s/ JOSEPH MOSCATO
Title: CHIEF EXECUTIVE OFFICER

INVESTOR:

AUCTUS FUND, LLC

/s/ Lou Posner
Name: LOU POSNER
Title: MANAGING DIRECTOR
COMMON STOCK PURCHASE WARRANT
GENEREX BIOTECHNOLOGY

CORPORATION

Warrant Shares: 62,857
Date of Issuance: August 14, 2019 ("Issuance Date")

This COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received (in connection with the issuance of the $1,100,000.00 convertible promissory note to the Holder (as defined below) of even date) (the "Note"), Auctus Fund, LLC, a Delaware limited liability company (including any permitted and registered assigns, the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date of issuance hereof, to purchase from Generex Biotechnology Corporation, a Delaware corporation (the "Company"), up to 62,857 shares of Common Stock (as defined below) (the "Warrant Shares") (whereby such number may be adjusted from time to time pursuant to the terms and conditions of this Warrant) at the Exercise Price per share then in effect. This Warrant is issued by the Company as of the date hereof in connection with that certain securities purchase agreement dated August 14, 2019, by and among the Company and the Holder (the "Purchase Agreement").

Capitalized terms used in this Warrant shall have the meanings set forth in the Purchase Agreement unless otherwise defined in the body of this Warrant or in Section 12 below. For purposes of this Warrant, the term "Exercise Price" shall mean $3.50, subject to adjustment as provided herein (including but not limited to cashless exercise), and the term "Exercise Period" shall mean the period commencing on the Issuance Date and ending on 5:00 p.m. eastern standard time on the five-year anniversary thereof.

1. EXERCISE OF WARRANT

(a) Mechanics of Exercise. Subject to the terms and conditions hereof, the rights represented by this Warrant may be exercised in whole or in part at any time or times during the Exercise Period by delivery of a written notice, in the form attached hereto as Exhibit A (the "Exercise Notice"), of the Holder’s election to exercise this Warrant. The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. On or before the third Trading Day (the "Warrant Share Delivery Date") following the date on which the Holder sent the Exercise Notice to the Company or the Company’s transfer agent, and upon receipt by the Company of payment to the Company of amount equal to the applicable Exercise Price multiplied by the number of Warrant Shares as to which all or a portion of this Warrant is being exercised (the "Aggregate Exercise Price" and together with the Exercise Notice, the "Exercise Delivery Documents") in cash or by wire transfer of immediately available funds (or by cashless exercise, in which case there shall be no Aggregate Exercise Price provided), the Company shall (or direct its transfer agent to) issue and dispatch by
overnight courier to the address as specified in the Exercise Notice, a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder is entitled pursuant to such exercise. Upon delivery of the Exercise Delivery Documents, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the certificates evidencing such Warrant Shares. If this Warrant is submitted in connection with any exercise and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall, as soon as practicable, and in no event later than five Business Days after any exercise, issue a new Warrant (in accordance with Section 6) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised.

If the Company fails to cause its transfer agent to transmit to the Holder the respective shares of Common Stock by the respective Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise in Holder’s sole discretion, and such failure shall be deemed an event of default under the Note.

If the Market Price of one share of Common Stock is greater than the Exercise Price and the Securities and Exchange Commission has not permitted the Company to include the Warrant Shares on an effective registration statement filed by the Company for the Holder’s resale of the Warrant Shares at prevailing market prices (and not fixed prices) without any limitation, the Holder may elect to receive Warrant Shares pursuant to a cashless exercise, in lieu of a cash exercise, equal to the value of this Warrant determined in the manner described below (or of any portion thereof remaining unexercised) by surrender of this Warrant and a Notice of Exercise, in which event the Company shall issue to Holder a number of Common Stock computed using the following formula:

\[ X = \frac{Y (A - B)}{A} \]

Where \( X \) = the number of Shares to be issued to Holder.

\( Y \) = the number of Warrant Shares that the Holder elects to purchase under this Warrant (at the date of such calculation).

\( A \) = the Market Price (at the date of such calculation).

\( B \) = Exercise Price (as adjusted to the date of such calculation).

(b) No Fractional Shares. No fractional shares shall be issued upon the exercise of this Warrant as a consequence of any adjustment pursuant hereto. All Warrant Shares (including fractions) issuable upon exercise of this Warrant may be aggregated for purposes of determining whether the exercise would result in the issuance of any fractional share. If, after aggregation, the exercise would result in the issuance of a fractional share, the Company shall, in lieu of issuance of any fractional share, pay the Holder otherwise entitled to such fraction a sum in cash equal to the product resulting from multiplying the then-current fair market value of a Warrant Share by such fraction.

(c) Holder’s Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, to the extent that after giving effect to issuance of Warrant Shares upon exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder’s Affiliates, and any other persons acting as a group together with the Holder or any of the Holder’s Affiliates), would beneficially own in excess of the Beneficial Ownership Limitation, as defined below. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such
For purposes of this paragraph, in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company’s most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or its transfer agent setting forth the number of shares of Common Stock outstanding. Upon the request of a Holder, the Company shall within two Trading Days confirm to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its affiliates since the date as of which such number of outstanding shares of Common Stock was reported. The “Beneficial Ownership Limitation” shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The limitations contained in this paragraph shall apply to a successor Holder of this Warrant.

2. **ADJUSTMENTS.** The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

   (a) **Distribution of Assets.** Except for the Company’s recently announced 1:1 dividend, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including without limitation any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement or other similar transaction, but not including a reverse split with respect to the Common Stock) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case:

   (i) any Exercise Price in effect immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution shall be reduced, effective as of the close of business on such record date, to a price determined by multiplying such Exercise Price by a fraction (i) the numerator of which shall be the Closing Sale Price of the shares of Common Stock on the Trading Day immediately preceding such record date minus the value of the Distribution (as determined in good faith by the Company’s Board of Directors) applicable to one share of Common Stock, and (ii) the denominator of which shall be the Closing Sale Price of the shares of Common Stock on the Trading Day immediately preceding such record date; and

   (ii) the number of Warrant Shares shall be increased to a number of shares equal to the number of shares of Common Stock obtainable immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution multiplied by the reciprocal of the fraction set forth in the immediately preceding clause (i); provided, however, that in the event that the Distribution is of shares of common stock of a company (other than the
Company) whose common stock is traded on a national securities exchange or a national automated quotation system ("Other Shares of Common Stock"), then the Holder may elect to receive a warrant to purchase Other Shares of Common Stock in lieu of an increase in the number of Warrant Shares, the terms of which shall be identical to those of this Warrant, except that such warrant shall be exercisable into the number of shares of Other Shares of Common Stock that would have been payable to the Holder pursuant to the Distribution had the Holder exercised this Warrant immediately prior to such record date and with an aggregate exercise price equal to the product of the amount by which the exercise price of this Warrant was decreased with respect to the Distribution pursuant to the terms of the immediately preceding clause (i) and the number of Warrant Shares calculated in accordance with the first part of this clause (ii).

(iii) For the avoidance of doubt, no adjustment (including but not limited to with respect to the Exercise Price and the number of Warrant Shares) shall occur under this Warrant when shares of outstanding Common Stock are subdivided or merged proportionally across all stockholders to form a smaller number of outstanding shares of Common Stock pursuant to a reverse stock split or otherwise.

3. **FUNDAMENTAL TRANSACTIONS.** Except for all publicly known announced transactions, including without limitation, the spin-off of Antigen Express, Inc. d/b/a NuGenerex Immuno-Oncology, if, at any time while this Warrant is outstanding, (i) the Company effects any merger of the Company with or into another entity and the Company is not the surviving entity (such surviving entity, the "Successor Entity"), (ii) the Company effects any sale of all or substantially all of its assets in one or a series of related transactions, (iii) any tender offer or exchange offer (whether by the Company or by another individual or entity, and approved by the Company) is completed pursuant to which holders of Common Stock are permitted to tender or exchange their shares of Common Stock for other securities, cash or property and the holders of at least 50% of the Common Stock accept such offer, or (iv) the Company effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock) (in any such case, a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive the number of shares of Common Stock of the Successor Entity or of the Company and any additional consideration (the "Alternate Consideration") receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event (disregarding any limitation on exercise contained herein solely for the purpose of such determination). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any Successor Entity in such Fundamental Transaction shall issue to the Holder a new warrant consistent with the foregoing provisions and evidencing the Holder’s right to exercise such warrant into Alternate Consideration.

4. **NON-CIRCUMVENTION.** The Company covenants and agrees that it will not, by amendment of its certificate of incorporation, bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith carry out all the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and non-assessable shares of Common Stock upon the exercise of this Warrant, and (iii) shall, for so long as this Warrant is outstanding, have authorized and reserved, free from preemptive rights, ten times the number of shares of Common Stock that is actually issuable upon full exercise of the Warrant (based on the Exercise Price in effect from time to time, and without regard to any limitations on exercise).
5. **WARRANT HOLDER NOT DEEMED A STOCKHOLDER.** Except as otherwise specifically provided herein, this Warrant, in and of itself, shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

6. **REISSUANCE.**

   (a) **Lost, Stolen or Mutilated Warrant.** If this Warrant is lost, stolen, mutilated or destroyed, the Company will, on such terms as to indemnity or otherwise as it may reasonably impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination and tenor as this Warrant so lost, stolen, mutilated or destroyed, at the expense of the Holder.

   (b) **Issuance of New Warrants.** Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant shall be of like tenor with this Warrant, and shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date.

7. **TRANSFER.**

   (a) **Notice of Transfer.** The Holder agrees to give written notice to the Company before transferring this Warrant or transferring any Warrant Shares of such Holder’s intention to do so, describing briefly the manner of any proposed transfer. Promptly upon receiving such written notice, the Company shall present copies thereof to the Company’s counsel. If the proposed transfer may be effected without registration or qualification (under any federal or state securities laws), the Company, as promptly as practicable, shall notify the Holder thereof, whereupon the Holder shall be entitled to transfer this Warrant or to dispose of Warrant Shares received upon the previous exercise of this Warrant, all in accordance with the terms of the notice delivered by the Holder to the Company; provided, however, that an appropriate legend may be endorsed on this Warrant or the certificates for such Warrant Shares respecting restrictions upon transfer thereof necessary or advisable in the opinion of counsel and satisfactory to the Company to prevent further transfers which would be in violation of Section 5 of the Securities Act and applicable state securities laws; and provided further that the prospective transferee or purchaser shall execute the Assignment of Warrant attached hereto as Exhibit B and such other documents and make such representations, warranties, and agreements as may be required solely to comply with the exemptions relied upon by the Company for the transfer or disposition of the Warrant or Warrant Shares.

   (b) If the proposed transfer or disposition of this Warrant or such Warrant Shares described in the written notice given pursuant to this Section 7 may not be effected without registration or qualification of this Warrant or such Warrant Shares, the Holder will limit its activities in respect to such transfer or disposition as are permitted by law.

   (c) Any transferee of all or a portion of this Warrant shall succeed to the rights and benefits of the initial Holder of this Warrant under Sections 4.1 and 4.3 (subject, however, to the limitations set forth in Section 4.2), 4.4 and 4.5 of the Purchase Agreement (registration rights, expenses, and indemnity).

8. **NOTICES.** Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with the notice provisions contained in the Purchase Agreement. The Company shall provide the Holder with prompt written notice (i) immediately upon any adjustment of the Exercise Price, setting forth in reasonable detail, the calculation of such adjustment and (ii) at least 20 days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any stock or other securities directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock or other property, pro rata to the holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction,
9. **AMENDMENT AND WAIVER.** The terms of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of the Company and the Holder.

10. **GOVERNING LAW.** This Warrant shall be governed by and construed in accordance with the laws of the State of Nevada without regard to principles of conflicts of laws. Any action brought by either party against the other concerning the transactions contemplated by this Warrant shall be brought only in the state courts located in the Commonwealth of Massachusetts or in the federal courts located in the Commonwealth of Massachusetts. The parties to this Warrant hereby irrevocably waive any objection to jurisdiction and venue of any action instituted hereunder and shall not assert any defense based on lack of jurisdiction or venue or based upon *forum non conveniens.* **THE BORROWER HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.** The prevailing party shall be entitled to recover from the other party its reasonable attorney's fees and costs. In the event that any provision of this Warrant or any other agreement delivered in connection herewith is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any such provision which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision of any agreement. Each party hereby irrevocably waives personal service of process and consents to process being served in any suit, action or proceeding in connection with this Agreement or any other Transaction Document by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law.

11. **ACCEPTANCE.** Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

12. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:


   (b) "Closing Sale Price” means, for any security as of any date, (i) the last closing trade price for such security on the Principal Market, as reported by Nasdaq, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing trade price, then the last trade price of such security prior to 4:00 p.m., New York time, as reported by Nasdaq, or (ii) if the foregoing does not apply, the last trade price of such security in the over-the-counter market for such security as reported by Nasdaq, or (iii) if no last trade price is reported for such security by Nasdaq, the average of the bid and ask prices of any market makers for such security as reported by the OTC Markets. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

   (c) "Common Stock” means the Company’s common stock, and any other class of securities into which such securities may hereafter be reclassified or changed.

   (d) “Common Stock Equivalents” means any securities of the Company that would entitle the holder thereof to acquire at any time Common Stock, including without limitation any debt, preferred stock, rights, ...
options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

(e) [Intentionally Omitted].

(f) [Intentionally Omitted].

(g) “Principal Market” means the primary national securities exchange on which the Common Stock is then traded.

(h) “Market Price” means the highest traded price of the Common Stock during the thirty (30) Trading Days prior to the date of the respective Exercise Notice.

(i) “Trading Day” means (i) any day on which the Common Stock is listed or quoted and traded on its Principal Market, (ii) if the Common Stock is not then listed or quoted and traded on any national securities exchange, then a day on which trading occurs on any over-the-counter markets, or (iii) if trading does not occur on the over-the-counter markets, any Business Day.

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IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed as of the Issuance Date set forth above.

GENEREX BIOTECHNOLOGY CORPORATION

/s/ Joseph Moscato
Title: Chief Executive Officer
EXHIBIT A

EXERCISE NOTICE

(To be executed by the registered holder to exercise this Common Stock Purchase Warrant)

THE UNDERSIGNED holder hereby exercises the right to purchase of the shares of Common Stock ("Warrant Shares") of Generex Biotechnology Corporation, a Delaware corporation (the "Company"), evidenced by the attached copy of the Common Stock Purchase Warrant (the "Warrant"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as (check one):

   □ a cash exercise with respect to Warrant Shares; or
   □ by cashless exercise pursuant to the Warrant.

2. Payment of Exercise Price. If cash exercise is selected above, the holder shall pay the applicable Aggregate Exercise Price in the sum of $ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder Warrant Shares in accordance with the terms of the Warrant.

Date:

(Print Name of Registered Holder)

By:
Name:
Title:

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EXHIBIT B

ASSIGNMENT OF WARRANT

(To be signed only upon authorized transfer of the Warrant)

FOR VALUE RECEIVED, the undersigned hereby sells, assigns, and transfers unto the right to purchase shares of common stock of Generex Biotechnology Corporation, to which the within Common Stock Purchase Warrant relates and appoints, as attorney-in-fact, to transfer said right on the books of Generex Biotechnology Corporation with full power of substitution and re-substitution in the premises. By accepting such transfer, the transferee has agreed to be bound in all respects by the terms and conditions of the within Warrant.

Dated:

(Signature)

(Name)

(Address)

(Social Security or Tax Identification No.)

* The signature on this Assignment of Warrant must correspond to the name as written upon the face of the Common Stock Purchase Warrant in every particular without alteration or enlargement or any change whatsoever. When signing on behalf of a corporation, partnership, trust or other entity, please indicate your position(s) and title(s) with such entity.
Consent of Independent Registered Public Accounting Firm

We hereby consent to the use in this Registration Statement on Form S-1 of our report dated November 12, 2019, related to the consolidated financial statements of Generex Biotechnology Corporation and Subsidiaries as of July 31, 2019 and for the fiscal year then ended, which appears in this Registration Statement of Generex Biotechnology Corporation and Subsidiaries. The report for Generex Biotechnology Corporation and Subsidiaries includes an explanatory paragraph about the existence of substantial doubt about its ability to continue as a going concern. We also consent to the reference to our Firm under the caption “Experts” in such Registration Statement.

/s/ Mazars USA LLP
Edison, New Jersey
February 18, 2020
We hereby consent to the use in this Registration Statement on Form S-1 dated February 18, 2020 of our report dated October 26, 2018 relating to the audited consolidated financial statements of Generex Biotechnology Corporation and subsidiaries (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the material uncertainty related to the Company’s ability to continue as a going concern on the audited consolidated financial statements) as at July 31, 2018 and for the year then ended, which appears in such Registration Statement, and to the reference to us under the headings “Experts” in this Registration Statement on Form S-1.

Signed:

/s/ MNP LLP

Mississauga, Ontario

February 18, 2020