As filed with the Securities and Exchange Commission on October 27, 2011

Registration Statement No. 333-175184

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Amendment No. 2

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

GENESIS BIOPHARMA, INC.

(Exact name of registrant as specified in its charter)

Nevada ***(State or other jurisdiction of incorporation or (I.R.S. Employer Identification No.)*** **11500 Olympic Boulevard, Suite 400** **Los Angeles, CA 90064** **(866) 963-2220** ***(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)***	**75-3254381** ***(I.R.S. Employer Identification No.)*** **Michael Handelman, Chief Financial Officer** **11500 Olympic Boulevard, Suite 400** **Los Angeles, CA 90064** **(866) 963-2220** ***(Name, address, including zip code, and telephone number, including area code, of agent for service)***

Copy of Communications To:

Joseph A. Baratta, Esq.
Baratta, Baratta & Aidala LLP
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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement, as determined by market conditions and other factors.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 (the "Securities Act"), other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. **x**

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in rule 12b-2 of the Exchange Act

Large accelerated filer ☐	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company **x**

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per Unit (2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Primary Offering By Genesis Biopharma, Inc.				
Common Stock, $0.000041666 par value per share	139,392,000	$ 1.11	$ 154,725,120	$ 17,963.59
Warrants to purchase Common Stock		(3)	(3)	(3)
Secondary Offering by Selling Stockholders				
Common Stock, $0.000041666 par value per share	10,608,000	$ 1.11	$ 11,774,880	$ 1,367.06
Total for Primary and Secondary Offering				$ 19,330.65(4)

(1) Pursuant to Rule 416 under the Securities Act, this Registration also relates to an indeterminate number of shares of common stock that may become issuable by reason of any stock splits, stock dividend, recapitalization or similar transaction that is effected without the receipt of consideration and results in an increase in the number of shares of the common stock that are outstanding.

(2) The proposed maximum aggregate offering price has been estimated solely to calculate the registration fee in accordance with Rule 457(o) under the Securities Act of 1933.

(3) Pursuant to Rule 457(g), no separate registration fee is required.

(4) The registration fee was previously paid.

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, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED October 27, 2011

PROSPECTUS

150,000,000 Shares

GENESIS BIOPHARMA, INC

Common Stock
Warrants

From time to time, we may offer up to 139,392,000 shares of our common stock and/or warrants to purchase such common stock in one or more offerings.

We will provide the specific terms of the securities to be offered in one or more supplements to this prospectus. You should read this prospectus and any supplement as well as any documents incorporated by reference in this prospectus and any prospectus supplement carefully before you invest in any securities. This prospectus may not be used to offer and sell securities unless accompanied by the applicable prospectus supplement for those securities.

These securities may be sold directly by us, through dealers or agents designated from time to time, to or through underwriters or through a combination of these methods. See “Plan of Distribution” in this prospectus. We may also describe the plan of distribution for any particular offering of these securities in any applicable prospectus supplement. If any agents, underwriters or dealers are involved in the sale of any securities in respect of which this prospectus is being delivered, we will disclose their names and the nature of our arrangements with them in a prospectus supplement. The net proceeds we expect to receive from any such sale will also be included in a prospectus supplement.

In addition, the selling stockholders identified in this prospectus or any of their pledges, donees, transferees or other successors-in-interest may offer to sell, upon exercise of warrants or Conversion of Notes, from time to time, in amounts, at prices and on terms determined at the time of the offering, up to 10,608,000 shares of our common stock under this prospectus. These sales may occur through ordinary brokerage transactions, directly to market makers of our shares or through any other means described in the section of this prospectus entitled “Plan of Distribution” beginning on page 17 or by any applicable prospectus supplement. We will not receive any proceeds from the sale of common stock by the selling stockholders, but we will incur expenses in connection with the sale of these shares. We and the selling stockholders may offer securities at the same time or in separate transactions.

The aggregate market value of our common stock, par value $0.000041666 per sharer, held by non-affiliates, based upon the average of the bid and asked prices of the common stock of $1.59 on June 6, 2011, as reported on the Over the Counter Bulletin Board was $118,296,157.50 and the last price that our common stock was sold prior to filing of the Form S-3 was $1.40 on June 28, 2011 which is an aggregate market value of $104,160,138.68. For purposes of the foregoing, shares of common stock held by persons who hold more than 10% of our outstanding shares of common stock (or any holder of shares of common stock in excess of 5% who has not affirmatively disclaimed affiliate status) and shares held by our officers and directors (or those who were formally officers and directors within ninety (90) days) have been excluded because such persons may be deemed to be affiliates.

Our common stock trades on the Over-the-Counter Bulletin Board under the symbol “GNBP.OB”

Investing in any of our securities involves risk. Please read carefully the section entitled "RISK FACTORS" on page 9, **for information you should consider before buying these 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 [_____•___ __], 2011.

Prospective investors may rely only on the information contained in this prospectus. We have not authorized anyone to provide prospective investors with different or additional information. This prospectus is not an offer to sell nor is it seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is correct only as of the date of this prospectus, regardless of the time of the delivery of this prospectus or any sale of these securities.

TABLE OF CONTENTS

IMPORTANT INFORMATION ABOUT THIS PROSPECTUS

This prospectus is part of a "shelf" registration statement that we filed with the United States Securities and Exchange Commission, or the SEC. By using a shelf registration statement, we may sell any combination of the securities described in this prospectus from time to time in one or more offerings. We may use this prospectus to offer and sell up to a total of 139,392,000 shares of our common stock. This prospectus provides you only with a general description of the securities we may offer. Each time we sell securities, we will provide a supplement to this prospectus that contains specific information about the terms of the securities offered. The supplement may also add, update or change information contained in this prospectus. Before purchasing any securities, you should carefully read both this prospectus and any supplement, together with the additional information described under the heading "Incorporation of Certain Documents by Reference" found on page 24.

The selling stockholders also may use the shelf registration statement to sell an aggregate of 10,608,000 shares of our common stock from time to time in the public market. We will not receive any proceeds from the sale of common stock by the selling stockholders. The selling stockholders will deliver a supplement with this prospectus, if required, to update the information contained in this prospectus. The selling stockholder may sell its shares of common stock through any means described in the section entitled "Plan of Distribution" or in any accompanying prospectus supplement. As used herein, the term "selling stockholders" include the selling stockholders and their pledges, donees, transferees or other successors-in-interest.

You should rely only on the information contained herein or incorporated by reference in this prospectus and the supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, as well as information we previously filed with the SEC and incorporated herein by reference, is accurate as of the date on the front cover of this prospectus only. Our business, financial condition, results of operations and prospects may have changed since that date.

This prospectus may not be used to offer and sell securities unless it is accompanied by a supplement that more fully describes the securities being offered and the terms of the offering.

FORWARD-LOOKING INFORMATION

This prospectus contains forward-looking statements which are not historical facts but are the intent, belief, or current expectations of our business and industry. We make statements in this prospectus, including statements that are incorporated by reference, that are forward-looking. When used in this prospectus or in any other presentation, statements which are not historical in nature, including the words "anticipate," "estimate," "could," "should," "may," "plan," "seek," "expect," "believe," "intend," "target," "project" and similar expressions are intended to identify forward-looking statements. They also include statements regarding:

- our future growth and profitability;
- our competitive strengths; and
- our business strategy and the trends we anticipate in the industries and economies in which we operate.

These forward-looking statements are based on our current expectations and are subject to a number of risks, uncertainties and assumptions. These statements are not guarantees of future performance and are subject to risks, uncertainties, and other factors, some of which are beyond our control, are difficult to predict, and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Important factors that could cause actual results to differ materially from those in forward-looking statements include:

- economic downturns, reduced capital expenditures, consolidation and technological and regulatory changes in our industry;
- the highly competitive nature of our industry;
- our ability to attract and retain qualified managers and skilled employees;
- the outcome of our plans for future operations and growth; and
- the other factors referenced in this prospectus, including, without limitation, under "Risk Factors."

We believe these forward-looking statements are reasonable; however, you should not place undue reliance on any forward-looking statements, which are based on current expectations. Furthermore, forward-looking statements speak only as of the date they are made. If any of these risks or uncertainties materialize, or if any of our underlying assumptions are incorrect, our actual results may differ significantly from the results that we express in or imply by any of our forward-looking statements. These and other risks are detailed in this prospectus, in any supplements to this prospectus, in the documents that we incorporate by reference into this prospectus and in other documents that we file with the SEC. We do not undertake any obligation to publicly update or revise these forward-looking statements after the date of this prospectus to reflect future events or circumstances. We qualify any and all of our forward-looking statements by these cautionary factors.

ABOUT GENESIS BIOPHARMA, INC.

This summary highlights selected information and does not contain all the information that is important to you. You should carefully read this prospectus, any applicable prospectus supplement and the documents we have referred you to in "Incorporation of Certain Documents by Reference" on page 24 of this prospectus for information about us and our financial statements.

Except where the context otherwise requires, the terms "we," "us," "our" or "Genesis" refer to Genesis Biopharma, Inc.

Our Business - History and Organizational Matters

Genesis Biopharma, Inc. (formerly named Freight Management Corp.) was incorporated in the State of Nevada on September 17, 2007 to engage in the development of an internet-based, intelligent online system for business owners, freight forwarders, and business people in the shipping/freight industry and export/import industry who require assistance with their freight and shipping related inquiries. We never engaged in the online freight business, and were an inactive company until March 15, 2010. We owned all of the issued and outstanding shares of Genesis Biopharma, Inc., a Nevada corporation (the "Subsidiary"). On March 15, 2010, the Subsidiary merged with and into Genesis (the "Consolidation"), with Genesis as the surviving corporation. Genesis and Subsidiary filed Articles of Merger on March 15, 2010 with the Secretary of State of Nevada, along with the Agreement and Plan of Merger entered into by the two parties effective as of March 15, 2010 (the "Merger Agreement"). The Merger Agreement and the Articles of Merger amended the Company's Articles of Incorporation, and changed the Company's name to "Genesis Biopharma, Inc."

Effective March 15, 2010, prior to the Consolidation, we and our Subsidiary entered into an Asset Purchase Agreement (the "Purchase Agreement") with Hamilton Atlantic, a Cayman Islands company ("Hamilton"), whereby Hamilton sold, and Subsidiary acquired, all of Hamilton's rights, title and interest to certain assets, including certain patents, patent applications, materials and know-how, related to the development and commercialization of biotechnology drugs, primarily anti-CD55+therapeutic antibody for the treatment of cancer. As a result of the Consolidation, Genesis acquired all of the assets and contractual rights, and assumed all of the liabilities, of Subsidiary, including all of the assets acquired pursuant to the Purchase Agreement. On March 15, 2010, after the effectiveness of the Consolidation, we entered into a Patent and Know How License (the "License Agreement") with Cancer Research Technology Limited, a company registered in England and Wales ("CRT"). Pursuant to the License Agreement, we were granted an exclusive, worldwide right and license in certain intellectual property related to a proprietary, therapeutic use of anti-CD55+ antibodies, including rights to patents and patent applications related thereto, to research, develop, use, make, distribute, and sell products utilizing the licensed intellectual property. The License Agreement expires on the later to occur of the expiration of the relevant licensed patent in the relevant country, or ten (10) years after the date that the first therapeutic product was placed on the market in such country. In consideration for the license, we paid CRT 30,000 pounds sterling on the effective date of the License Agreement, and agreed to pay CRT additional royalties based on the achievement of certain milestones, including the consummation of financing by us and other milestones relating to the commencement of Phase III clinical studies, the filing of new drug applications, and the grant of marketing approval related to the licensed products. As a result of the acquisition of the assets related to the Anti-CD55+ Antibody Program and the License Agreement, we abandoned our plan to engage in the internet-based, freight forwarders' shipping/freight business, and commenced operations as a biopharmaceutical company engaged in the development and commercialization of therapeutics for the treatment of cancer.

On October 5, 2011, we terminated our efforts to develop anti-CD55+ antibodies for the treatment of cancer. As a result, we also terminated our exclusive license agreement with CRT, and returned all rights thereunder to certain patents and patent applications to CRT.

Business Overview and Strategy – Plan of Operations

We plan to develop and commercialize adoptive cell therapy using autologous tumor infiltrating lymphocytes for the treatment of Stage IV metastatic melanoma and other cancers. Our lead product candidate, Cōntego™, is an adoptive cell therapy using autologous tumor infiltrating lymphocytes for the treatment of certain cancers. There is no guarantee that Cōntego will prove to be a successful therapy product.

Adoptive cell therapy is a passive immunotherapy in which autologous tumor infiltrating lymphocytes possessing anti-tumor cytotoxic killing capability are isolated from a cancer patient's tumor, expanded *ex vivo* to great numbers, and following a patient preparative nonmyeloablative chemotherapeutic regimen, infused into the patient in concert with administration of high dose IL-2 therapy to kill their cancer. Adoptive cell therapy using autologous tumor infiltrating lymphocytes has proven itself as one of the most effective therapies for the treatment of Stage IV metastatic melanoma. Objective response rates of 50% or more have been reported in advanced Stage IV melanoma patients who have undergone treatment. Adoptive cell therapy using autologous tumor infiltrating lymphocytes for the treatment of Stage IV metastatic melanoma is currently administered as a physician-sponsored investigational therapy at the National Cancer Institute, MD Anderson Cancer Center, and the H. Lee Moffitt Cancer Research Center.

Cooperative Research and Development Agreement

Effective August 5, 2011, Genesis signed a Cooperative Research and Development Agreement ("CRADA") with the National Institutes of Health and the National Cancer Institute ("NCI"). Under the terms of the five-year CRADA, Genesis will work with Steven A. Rosenberg, M.D., Ph.D., chief of NCI's Surgery Branch, to develop adoptive cell immunotherapies that are designed to destroy metastatic melanoma cells using a patient's tumor infiltrating lymphocytes.

The CRADA is intended to: (i) support the *in vitro* development of improved methods for the generation and selection of autologous tumor infiltrating lymphocytes with anti-tumor reactivity from patients with metastatic melanoma, (ii) help develop approaches for large-scale production of autologous tumor infiltrating lymphocytes that are in accord with Good Manufacturing Practice ("GMP") procedures suitable for use in treating patients with metastatic melanoma, and (iii) conduct clinical trials using these improved methods of generating autologous tumor infiltrating lymphocytes as well as improved adoptive cell therapy patient preparative regimens for the treatment of metastatic melanoma. GMP are practices and the systems required by the Food and Drug Administration ("FDA") to be adopted in pharmaceutical manufacturing, quality control, as well as quality system covering the manufacture and testing of pharmaceuticals or drugs. Failure to comply with FDA-mandated GMP will result in FDA (i) denying licensure of a new drug, or (ii) for a currently marketed drug, causing the removal from interstate commerce. There are also significant monetary fines which can be levied by FDA as well as numerous civil penalties and criminal charges which can be brought against a company and its board of directors, executive officers and employees.

Both Genesis and the NCI may provide personnel, services, facilities, equipment or other resources under the agreement. Under the terms of the CRADA, Genesis will have an exclusive option to negotiate an exclusive license to any new inventions developed jointly or independently by NCI scientists during the course of the research project. A CRADA is the only mechanism the National Institutes of Health has to promise exclusive intellectual property rights in advance to a collaborator.

Genesis will provide funds in the amount of $1,000,000 per year of the CRADA for Dr. Rosenberg to use to acquire technical, statistical, and administrative support for the research activities, as well as to pay for supplies and travel expenses. Genesis will provide funds in the amount of $250,000.00 on a quarterly basis. The first quarterly installment of $250,000.00 was due and paid within thirty (30) days of the Effective Date of the CRADA. Each subsequent installment will be due within thirty (30) days of each quarterly anniversary of the Effective Date. Genesis also agreed that Dr. Rosenberg can allocate the funding between the various categories in support of the CRADA research as he sees fit.

License Agreement and Intellectual Property

Effective October 5, 2011, we entered into a Patent License Agreement (the "License Agreement") with the National Institutes of Health, an agency of the United States Public Health Service within the Department of Health and Human Services ("NIH"). Pursuant to the License Agreement, NIH granted to us a non-exclusive worldwide right and license to develop and manufacture certain proprietary adoptive cell therapy using autologous tumor infiltrating lymphocytes for the treatment of metastatic melanoma, ovarian cancer, breast cancer, and colorectal cancer. The intellectual property subject to the License Agreement is covered by 43 patents and patent applications, consisting of nine issued United States patents, 13 pending patent applications in the United States, and 21 foreign patents and patent applications as counterparts of U.S. patents/patent applications. We also has have limited rights to sublicense the intellectual property subject to the License Agreement. The License Agreement will expire on a product-by-product basis upon the expiration of the subject patent rights. These technologies were also the subject of the CRADA.

We have the right to terminate the License Agreement in any country on 60 days notice, and NIH may terminate the agreement if we are is in material breach, and the breach is not cured within a specified cure period, upon certain bankruptcy and insolvency events, or if we fails to comply with or achieve certain development timelines as set forth in the License Agreement.

In consideration for the rights granted pursuant to the License Agreement, we agreed to pay an estimated $1,200,000 of upfront licensing fees and expense reimbursements within 60 days of the effectiveness of the License Agreement. In addition we will be required to pay a 6% royalty on net yearly sales for all products sold which are covered by the License Agreement. We will also be required to make smaller minimum annual royalty payments, which minimum royalties will be credited against any earned royalties due for sales in that year.

In addition, we will have to lump sum benchmark milestone payments on the achievement of certain clinical and regulatory milestones for each of the various indications. We initially intend to focus on the development of licensed products in the metastatic melanoma field of use. If we achieves all benchmarks for metastatic melanoma, up to and including the product's first commercial sale in the United States, the total amount of such benchmark payments will be $6,050,000. If we achieves all benchmarks for all four licensed indications, the aggregate amount of benchmark payments that we will have to make to NIH will be $36,300,000.

We have not generated any revenues to date and have incurred operating losses since our inception. We sustained operating losses of $11,219,434 for the six month period ended June 30, 2011 and operating losses of $815,413 in our fiscal year ended December 31, 2010 and $15,772 in our fiscal year ended December 31, 2009. Additionally our auditor has expressed substantial doubt regarding our ability to continue as a going concern. We do not anticipate that we will generate any revenues until, and if, we receive approval from the FDA and other regulatory authorities for our product candidates allowing us to sell our drugs. Our current cash on hand as of October 24, 2011 is approximately $3,000,000 and our current monthly overhead expenses are approximately $100,000 and should increase to approximately $150,000 as we continue to ramp up our operations. In addition to our current monthly expenses, we are required to make the second of four quarterly payments of $250,000 on or about November 5, 2011 toward our annual CRADA payment obligation of $1,000,000. We are also required to pay approximately $1,200,000 in upfront licensing fees and expense reimbursements on or about December 5, 2011 pursuant to the terms of the License Agreement. Additionally, effective July 27, 2011 we issued $5 million of our seven (7%) percent senior convertible notes (the "Notes") to five accredited investors. The Notes mature November 30, 2011 and are convertible per the terms of the Notes into shares of our common stock at the option of the holder at a conversion price of $1.25. As such, in the event that holders of the Notes do not convert their Notes and we are required to satisfy the Notes, we will not have sufficient funds on hand and will be required to raise additional cash to satisfy the Notes. If required to raise funds to satisfy the Notes, there can be no assurances we will be able to raise the funds or if we raise the funds, that same will be on terms satisfactory to us and our shareholders. Provided we are not required to satisfy the Notes by way of cash payments, we expect to be able to fund our current operations with current cash on hand until July 31, 2012. For the foreseeable future we anticipate we will have to fund all of our operations including our obligations under the CRADA and License Agreement from new and existing investors, licensing fees and grants, if any. If we are unable to obtain sufficient capital on a timely basis, the development of our current or any future product candidates will likely be delayed and we could be forced to reduce the scope of research and development projects or otherwise limit or terminate our operations.

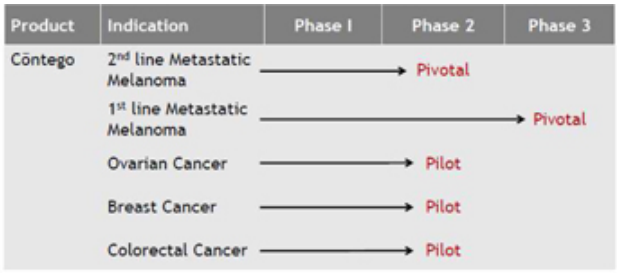
LONZA Agreement

On July 25, 2011, we entered into a process development and scale-up consulting agreement relating to the manufacture of Cōntego with LONZA Corporation ("Lonza") (the "Lonza Agreement"). Under the terms of the Lonza Agreement, we and Lonza will work with Dr. Rosenberg and his colleagues at the NCI to transfer to us the NCI's standard operating procedures ("SOPs") used to manufacture their physician-sponsored investigational adoptive cell therapy using tumor infiltrating lymphocytes for the treatment of Stage IV metastatic melanoma. Once transfer of said SOPs is completed, we and Lonza anticipate entering into a manufacturing services agreement relating to the manufacture of Cōntego for clinical trials and for post approval sales. There can be no assurances that we will enter into a manufacturing services agreement or that the terms of said agreement will be satisfactory.

Product Pipeline

We are advancing our lead product candidate, Cōntego™, an adoptive cell therapy using autologous tumor infiltrating lymphocytes for the treatment of Stage IV metastatic melanoma. We also are seeking to advance Cōntego for the treatment of breast, ovarian and colorectal cancers.

Status of Genesis Biopharma Product Pipeline



Market Opportunity

We are initially positioning Cōntego for the treatment of Stage IV metastatic melanoma, ovarian, breast and colorectal cancers.

Worldwide Number of Certain Cancer Cases

Cancer Type	Annual Number of New Cases (USA)	Annual Number of Deaths (USA)
Melanoma	70,230	8,790
Ovarian Cancer	21,990	15,460
Breast Cancer	230,480	39,520
Colorectal Cancer	101,340	49,380

Source: American Cancer Society, Surveillance Research 2011.

We estimates a total available annual market in the United States of America of approximately 8,000 Stage IV metastatic melanoma patients as candidates for Cōntego. Genesis believes the global number of Stage IV metastatic melanoma patients suitable for such treatment is approximately twice the number of patients in the US.

Competition

We are not aware of any direct competitors as Cōntego is a therapy that is used to treat stage IV cancer patients after all other recognized therapies have failed. There can be no assurances that in the future new therapies may be developed that are more effective both as to efficacy and cost than Cōntego or that Cōntego will be a successful therapy.

Scientific & Medical Advisory Board

To assist with its development and commercialization of Cōntego we have recruited a team of scientists and clinicians experienced with the development and use of adoptive cell therapy using autologous tumor infiltrating lymphocytes for the treatment of cancer. All members of our Scientific & Medical Advisory Board receive monthly compensation of $5,000 except for Dr. Laszlo Radvanyi who receives monthly compensation in the sum of $2,395. Our Scientific & Medical Advisory Board advise regarding our scientific and regulatory strategy. The members include:

Cassian Yee, M.D., Fred Hutchinson Cancer Research Center. Dr. Yee is on the cutting edge adoptive immunotherapy which is one of many unexpected breakthroughs to emerge from the bone-marrow transplantation treatments pioneered by the Hutchinson Center's Dr. E. Donnall Thomas to cure leukemia and other blood cancers. By extracting rare cancer-fighting T-cells from the blood, multiplying them in the lab, and transplanting them back into the body, Dr. Yee and his colleagues are using adoptive immunotherapy to harness the power of the immune system to seek and destroy solid tumor cells. His research was among the first to show that adoptive T-cell therapy holds great promise for treating melanoma, a potentially fatal form of skin cancer. In recognition of the potential for his research, Dr. Yee received a prestigious five-year grant from the Burroughs Wellcome Fund in 2006 to refine the therapy and improve its tumor-fighting ability.

Mario Sznol, M.D., Yale University School of Medicine. Dr. Mario Sznol, associate professor of medicine and vice-chief of the Section of Medical Oncology, is helping to direct the academic and clinical research activities of the section. Dr. Sznol, formerly with the National Cancer Institute, has an international reputation in cancer drug development. He currently cares for patients with melanoma and serves as head of the melanoma disease unit. In addition, he chairs the Yale Cancer Center's Protocol Review Committee and is a member of the Yale Human Investigations Committee. Dr. Sznol's expertise and experience is in cancer immunotherapy, drug development for cancer, and treatment of patients with melanoma and renal cell carcinoma. Dr. Sznol is working to establish a strong multidisciplinary clinical research program for patients with melanoma by expanding the opportunities for clinical trials at the Yale Cancer Center, particularly those focusing on immunotherapy and novel agents. Dr. Sznol received his BA from Rice University, and his MD from the Baylor College of Medicine.

James Mulé, Ph.D. H. Lee Moffitt Cancer Center & Research Institute. Dr. James J. Mulé is Executive Vice President, Associate Center Director for Translational Research, the Michael McGillicuddy Endowed Chair for Melanoma Research and Treatment, and the Director of Cell-Based Therapies at H. Lee Moffitt Cancer Center & Research Institute. Dr. Mulé received his formal training at the Fred Hutchinson Cancer Research Center in Seattle, and at the Surgery Branch, Division of Cancer Treatment, National Cancer Institute, NIH, Bethesda, Md. He then moved to Palo Alto, Calif., where he was involved in the birth of two startup companies while an adjunct faculty member in the Department of Surgery, Stanford University. He moved to Ann Arbor, Mich., as the Director of the Tumor Immunology and Immunotherapy Clinical Research Program at the University of Michigan Comprehensive Cancer Center. He was also the Maude T. Lane Endowed Professor of Surgery, Department of Surgery and held the appointment of Professor in the Department of Internal Medicine. Dr. Mulé is recognized for his translational research studies in cancer immunotherapy. His research group is involved in vaccine strategies and other approaches to stimulate the immune system to recognize and destroy tumors. Dr. Mulé serves on the advisory boards of seven NCI-designated Cancer Centers and was a member of the NCI's Board of Scientific and Clinical Counselors. Dr. Mulé has published nearly 200 articles in the areas of cancer vaccines and cancer immunotherapy. He was honored as the 25th Meadow Brook Lecturer in Medicine and Surgery.

Jeffrey Weber, M.D., Ph.D., H. Lee Moffitt Cancer Center & Research Institute. Dr. Weber is the director of the Donald A. Adam Comprehensive Melanoma Research Center at Moffitt Cancer Center, with the charge of bringing together basic scientists, clinical and translational investigators, and prevention/epidemiology scientists in an integrated overall melanoma research effort that rapidly brings new drugs and ideas to the clinic. Dr. Weber has an extensive history of conducting translational and investigator-initiated clinical trials. Dr. Weber is also a professor of Oncology and Medicine at the University of South Florida College of Medicine. Dr. Weber received his doctorate in Molecular Cell Biology from Rockefeller University. He received his medical degree from New York University Medical Center. He then completed an internship and residency in Medicine at the University of California. Dr. Weber also trained at the National Cancer Institute. Dr. Weber's clinical interests are in the immunotherapy of melanoma and other malignancies, with a focus on vaccines, adoptive immunotherapy, dendritic cell therapy and the use of immune modulating antibodies.

Patrick Hwu, M.D., MD Anderson Cancer Center. Dr. Patrick Hwu is considered one of the leading tumor immunologists in the country, and a primary force in the development of novel vaccine and adoptive T-cell therapies. His laboratory and clinical work have led to insights and advances in the understanding of the interactions between tumors and the immune system, and the development of cellular immunotherapies. He was recruited to be the first Chairman of the Department of Melanoma Medical Oncology in 2003. Since that time, he has also served as Associate Director of the Center for Cancer Immunology Research and is the current Chair of MD Anderson Cancer Center's Promotion and Tenure Committee. Dr. Hwu's laboratory is significantly funded by the National Cancer Institutes. Dr. Hwu is the principal investigator on three RO1 translational immunotherapy grants, as well as a P01 comprehensive program grant that is investigating the use of plasmacytoid dendritic cells to enhance immunotherapy. Dr. Hwu is a member of the editorial board of the Journal of Immunotherapy. He has published more than 90 peer-reviewed articles. Dr. Hwu is the recipient of numerous awards such as the George and Barbara Bush Endowment for Innovative Cancer Research in 2004, the Robert R. Herring Professorship in Clinical Research 2004 – 2007, the Moshe Talpaz Endowed Chair in Immunology from 2007 to present, and the Division of Cancer Medicine Hematology/Oncology Fellowship Program Mentor of the Year for FY2009.

Laszlo Radvanyi, Ph.D., MD Anderson Cancer Center. Dr. Radvanyi received his Ph.D. in clinical biochemistry from the University of Toronto. His main research area is tumor immunology studying immune regulation in cancer and identifying new antigens as targets for anti-cancer T-cell therapy. After completing postdoctoral work in Toronto and at Harvard University in Boston at the Joslin Diabetes Center, Dr. Radvanyi joined the Immunology Group at Sanofi-Pasteur in Toronto in 2000 as a Senior Scientist. There he helped lead an antigen discovery program that led to the discovery of a group of over-expressed breast cancer-specific genes that are candidates for antigen-specific vaccines against breast cancer. In 2005, Dr. Radvanyi joined the faculty of the University of Texas, M.D. Anderson Cancer Center as an Associate Professor. He has a dual appointment in the Departments of Breast Medical Oncology and Melanoma Medical Oncology.

David DiGiusto, Ph.D., City of Hope. Dr. DiGiusto cell biologist and immunologist, Dr. David DiGiusto has over 17 years experience developing cellular therapeutics for cancer and infectious disease. At the City of Hope, Dr. DiGiusto has been instrumental in the development of the GMP manufacturing and Cellular Therapeutics programs. He serves in a number of positions with City of Hope, including: Director, Analytical Cytometry Core Facility; Professor, Cancer Immunotherapeutics & Tumor Immunology; Director, Cellular Process Development & Manufacturing; Associate Member, Cancer Immunotherapeutics Program, Comprehensive Cancer Center; and, Associate Member, Hematologic Malignancies Program, Comprehensive Cancer Center.

Daniel Powell, Ph.D., University of Pennsylvania School of Medicine. Dr. Powell holds the following positions at the University of Pennsylvania School of Medicine: Research Assistant Professor of Pathology and Laboratory Medicine; Assistant Director, Clinical Cell and Vaccine Production Facility; Director, Cellular Therapy Tissue Facility; and, Department: Pathology and Laboratory Medicine. Dr. Powell's research centers on the generation and isolation of high avidity, tumor-reactive T cells for use in adoptive immunotherapy. In this effort, he explores the use of novel cancer vaccines, the isolation of naturally occurring tumor-reactive T cells from tumor explants and the de novo generation of tumor reactive T cells through novel, sophisticated genetic engineering methods. Dr. Powell is also exploring:

- Active expansion and characterization of Tumor Infiltrating Lymphocytes (TIL) for use in adoptive cell transfer approaches.
- The use of lentiviral vectors to convey high avidity tumor antigen recognition to non-reactive T cells via genetic transfer of tumor-reactive T cell receptors or antibody-based chimeric immune receptors.
- Development of novel cancer vaccine approaches through genetic engineering of cancer cells and pulsing of dendritic cells with autologous tumor lysate, designed to potentiate adoptive immunotherapy.
- Preclinical validations; clinical translation and trial support.
- Biospecimen Processing and Procurement; viable tumor banking.

Key Consultants

We have also assembled a team of consultants who are currently compensated on a per diem basis for their time and who will provide services in cell therapy bioprocess engineering, clinical trial design, biostatistics, regulatory affairs and FDA compliance relating to Cōntego. The consultants we have assembled include:

Karin M. Abitorabi is an independent cell therapy bioprocess engineering consultant. Ms. Abitorabi most recently was Senior Scientist, Process Development at Progenitor Cell Therapy, a client services-based cell therapy support company. She previously served as an R&D scientist with work ranging from discovery research to developing therapeutic drugs at a number of top-tier pharmaceutical and biotechnology companies including Schering Plough, Cell Genesys and Systemix (a Novartis company). She holds an M.S. degree (Diplom) in immunology and microbiology from the University of Konstanz in Germany, and completed her thesis work in the Department of Molecular and Cell Biology at University of California Berkeley. Ms. Abitorabi is the author of and has contributed to numerous scientific and clinical publications and presentations.

Brent A. Blumenstein, Ph.D. is a Principal Consultant at Trial Architecture (TriArc) Consulting, where he advises clients on trial architecture and biostatistics. Dr. Blumenstein has held academic positions at Emory University, Duke University, University of Washington, Fred Hutchinson Cancer Research Center and Northwestern University, having taught numerous courses on clinical trial methodology and management, biostatistics and multivariate analysis, among others. Dr. Blumenstein also has advised numerous companies including Dendreon Corporation on the design of clinical trials. He has been a consultant to leading cancer centers including, St. Jude Children's Research Hospital, City of Hope, Massachusetts General Hospital, Pittsburg Cancer Institute and The Cleveland Clinic. He is widely published and has participated as a reviewer for many prestigious journals. He holds a B.S. in Chemistry and a Ph.D. in Biometry from Emory University.

Lizabeth J. Cardwell, MT (ASCP), MBA, RAC is an independent Quality Assurance and Regulatory Compliance consultant. Ms. Cardwell has more than 25 years of experience in cGMP, GCP and QSR management at biotechnology and cell therapy companies. Prior to forming her consultancy, she served as Director, Quality Assurance and Regulatory Affairs at Xcyte Therapies. Previous to that, Ms. Cardwell was Vice President-Quality Assurance and Quality Control at Dendreon Corporation. She also was Manager, Biologicals Manufacturing for Genetic Systems/Sanofi. Ms. Cardwell holds an MBA in Quality Management from City University in Seattle, a Medical Technology Certification from Children’s Orthopedic Hospital in Seattle and a Bachelor of Science in Biology from Pacific Lutheran University in Tacoma, Wash.

Carol A. Gloff, Ph.D. is Principal of Carol A. Gloff & Associates, a regulatory affairs, quality assurance and compliance, product development and pharmacokinetics consultancy. Previously, Dr. Gloff was Vice President, Chief Regulatory Officer at ImmunoGen. She also was with Alkermes, rising from Director of Product Development to Vice President, Regulatory Affairs. At Triton Biosciences she held roles from Research Scientist to Manager, Toxicology/Pharmacokinetics. Since 1997 Dr. Gloff has been an Adjunct Professor at Boston University, where she teaches graduate and undergraduate courses in regulatory affairs and compliance issues, covering drugs, biologics and devices. Dr. Gloff holds a B.S. in Pharmacy from SUNY at Buffalo and she received a Ph.D. in Pharmaceutical Chemistry from the University of California San Francisco.

Company Information

Our principal executive offices are located at 11500 Olympic Boulevard, Suite 400, Los Angeles, California 90064, and our telephone number is (866) 963-2220. You may also contact us or obtain additional information through our internet website at: www.genesis-biopharma.com. Information contained on our website is not incorporated into this prospectus and is not a part of this prospectus.

RISK FACTORS

Investing in our securities involves risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our company. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed below and under the heading “Risk Factors” in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading “Risk Factors” included in our most recent annual report on Form 10-K, as revised or supplemented by our most recent quarterly report on Form 10-Q, each of which are on file with the SEC and are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future.

Risks Related To Our Business

We are a development-stage biopharmaceutical company subject to all of the risks and uncertainties of a new business, including the risk that we may never market any products or generate revenues.

We are a development stage biopharmaceutical company. We have not conducted any significant operations to date or received any operating revenues. Potential investors should be aware of the problems, delays, expenses and difficulties encountered by an enterprise in our stage of development, many of which may be beyond our control. These include, but are not limited to, problems relating to product development, testing, regulatory compliance, manufacturing, marketing, costs and expenses that may exceed current estimates and competition. No assurance can be given that any future technologies or products will be successfully developed, commercialized and accepted by the marketplace or that sufficient revenues will be realized to support operations or future research and development programs and if our development efforts are unsuccessful the value of our common stock could decrease and you could lose your entire investment.

We currently have no revenues, a limited amount of cash available, and will need to raise substantial additional capital to operate our business.

We do not expect to generate any revenues until, and if, we receive approval from the FDA and other regulatory authorities for our product candidates allowing us to sell our drugs. Our current cash on hand as of October 24, 2011 is approximately $3,000,000 and our current monthly overhead expenses are approximately $100,000 and should increase to approximately $150,000 as we continue to ramp up our operations. In addition to our current monthly expenses, we are required to make the second of four quarterly payments of $250,000 on or about November 5, 2011 toward our annual $1,000,000 obligation under the Cooperative Research and Development Agreement (CRADA) we previously entered into with the National Institutes of Health and the National Cancer Institute. We are also required to pay approximately $1,200,000 in upfront licensing fees and expense reimbursements on or about December 5, 2011 pursuant to the terms of the Patent License Agreement with the National Institutes of Health (“License Agreement”). Additionally, effective July 27, 2011 we

issued $5 million of our seven (7%) percent senior convertible notes (the “Notes”) to five accredited investors. The Notes mature November 30, 2011 and are convertible per the terms of the Notes into shares of our common stock at the option of the holder at a conversion price of $1.25. As such, in the event that holders of the Notes do not elect to convert the Notes and we are required to satisfy the Notes, we will not have sufficient funds on hand and will be required to raise additional cash to satisfy the Notes. Provided we are not required to satisfy the Notes by way of cash payments, we expect to be able to fund our current operations with current cash on hand until July 31, 2012. For the foreseeable future we anticipate we will have to fund all of our operations including our obligations under the CRADA and License Agreement from new and existing investors, licensing fees and grants, if any. If we are unable to obtain sufficient capital on a timely basis, the development of our current or any future product candidates will likely be delayed and we could be forced to reduce the scope of research and development projects or otherwise limit or terminate our operations.

We are not currently profitable and may never become profitable, which could reduce the value of your investment.

We have not generated any revenues and have incurred operating losses since our inception. We expect to incur substantial losses and negative operating cash flow for the foreseeable future, and we may never achieve or maintain profitability. Even if we succeed in developing and commercializing one or more of our product candidates, we expect to incur substantial losses for the foreseeable future and may never become profitable. We also expect to continue to incur significant operating and capital expenditures and anticipate that our expenses will increase substantially in the foreseeable future as we:

- continue to undertake pre-clinical development and clinical trials for our product candidates;
- seek regulatory approvals for our product candidates;
- in-license or otherwise acquire additional products or product candidates;
- add internal systems and infrastructure; and
- hire additional personnel.

We also expect to experience negative cash flow for the foreseeable future as we fund our operating losses and capital expenditures. As a result, we will need to generate significant revenues in order to achieve and maintain profitability. We may not be able to generate these revenues or achieve profitability in the future. Our failure to achieve or maintain profitability could negatively impact the value of our common stock.

Our auditor has expressed substantial doubt as to our ability to continue as a going concern.

As we are a development stage biopharmaceutical company and have not generated revenues from operations to date and are dependent upon future financing. Our auditor has expressed substantial doubt as to our ability to continue as a going concern.

As of June 30, 2011, we had an accumulated deficit of $13,206,512. There can be no assurance that we will be successful in achieving sufficient cash flow from operations in the near future and there can be no assurance that we will either achieve or maintain profitability in the future. As a result, there is substantial doubt regarding our ability to continue as a going concern. We will require additional financing to fund our continuing operations. Our ability to continue as a going concern is dependent on obtaining additional financing and achieving and maintaining a profitable level of operations through obtaining approval of our product candidates from the FDA and other regulatory authorities. The outcome of these matters cannot be predicted at this time, and we can provide no assurance that we will be able to raise additional funds or that any of our product candidates will ever receive approval.

Even if we are able to raise additional cash or obtain financing through the public or private sale of debt or equity securities, funding from joint-venture or strategic partners, debt financing or short-term loans, the terms of such transactions may be unduly expensive or burdensome to us or disadvantageous to our existing stockholders. Additionally, if any of our product candidates ever receive regulatory approval, there can be no assurances that our product candidates will be commercially accepted or generate sustainable amounts of revenue.

Because of inherent limitations, our internal control over financial reporting for the fiscal year ended December 31, 2010 may not have prevented or detected misstatements.

As of December 31, 2010 our management assessed the effectiveness of our internal control over financial reporting based on the criteria for effective internal control over financial reporting established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) and SEC guidance on conducting such assessments. Based on that evaluation, they concluded that, the internal controls and procedures in effect for our fiscal year ended December 31, 2010 were not effective to detect the inappropriate application of US GAAP rules. This was due to deficiencies that existed in the design or operation of our internal controls over financial reporting that adversely affected our internal controls and that may be considered to be material weaknesses. During the applicable period we did not have a functioning audit committee due to a lack of a majority of independent members, a lack of a majority of outside directors on our board of directors, resulting in ineffective oversight in the establishment and monitoring of required internal controls and procedures, and the lack of segregation of duties due to limited staff and significant reliance on outside consultants. Management believed that the lack of a functioning audit committee, the lack of a majority of outside directors on our board of directors as of December 31, 2010, and the lack of segregation of duties resulted in ineffective oversight in the establishment and monitoring of required internal controls and procedures for the fiscal year ended December 31, 2010, which could result in a material misstatement in our financial statements in future periods.

Our limited operating experience could make our operations inefficient or ineffective, causing your investment to diminish in value.

We are a development-stage company and have not demonstrated our ability to perform the functions necessary for the successful commercialization of any of our product candidates. The successful commercialization of our product candidates will require us to perform a variety of functions, including:

- continuing to undertake pre-clinical development and clinical trials;
- participating in regulatory approval processes;
- formulating and manufacturing products; and
- conducting sales and marketing activities.

Our management team has limited experience in performing these functions and may not perform them efficiently or effectively.

If we are unable to hire qualified personnel, we may not be able to implement our business plan and if we are unable to do so, the value of our common stock could be reduced.

We currently have two fulltime employees. Attracting and retaining qualified personnel will be critical to our success. Our success is highly dependent on the hiring and retention of key personnel and scientific staff. Certain of our current officers, directors, scientific advisors and/or consultants or certain of the officers, directors, scientific advisors and/or consultants hereafter appointed may from time to time serve as officers, directors, scientific advisors and/or consultants of other biopharmaceutical or biotechnology companies. Currently Dr. L. Stephen Coles who is a member of our board of directors serves on the Scientific Advisory Board of Oxis International Inc. There can be no assurance that such other companies will not have interests in conflict with ours. The loss of key personnel or the failure to recruit necessary additional personnel does and will further impede the achievement of development objectives. There is intense competition for qualified personnel in our area of activities, and there can be no assurance that we will be able to continue to attract and retain the qualified personnel necessary for the development of our business.

We will need to outsource and rely on third parties for the clinical development and manufacture, sales and marketing of our current product candidates or any future product candidates, and our future success will be dependent on the timeliness and effectiveness of the efforts of these third parties.

We do not have the required financial and human resources to carry out on our own all the pre-clinical and clinical development for our product candidates or any other or future product candidates, and do not have the capability and resources to manufacture, market or sell our current product candidates or any future product candidates. We rely, in substantial part, and for the foreseeable future will rely, on certain independent organizations, advisors and consultants to provide certain services, including substantially all aspects of regulatory approval, clinical management, manufacturing, marketing and sales. There can be no assurance that the services of independent organizations, advisors and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified replacements. If we are unable to retain the services of qualified personnel we may not be able to develop the products we intend to develop and the value of our common stock could be reduced.

We may not obtain the necessary U.S. or worldwide regulatory approvals to commercialize our product candidates, which could affect our ability to market our products and generate future revenues.

We will need FDA approval to commercialize our product candidates in the U.S. and approvals from the FDA equivalent regulatory authorities in foreign jurisdictions to commercialize our product candidates in those jurisdictions. In order to obtain FDA approval of any of our product candidates, we must submit to the FDA a New Drug Application, or NDA, demonstrating that the product candidate is safe for humans and effective for its intended use. This demonstration requires significant research and animal tests, which are referred to as pre-clinical studies, as well as human tests, which are referred to as clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical approaches will result in drugs that the FDA considers safe for humans and effective for indicated uses. The FDA has substantial discretion in the drug approval process and may require us to conduct additional preclinical and clinical testing or to perform post-marketing studies. The approval process may also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals may:

- delay commercialization of, and our ability to derive product revenues from, our product candidates;
- impose costly procedures on us; and
- diminish any competitive advantages that we may otherwise enjoy.

Even if we comply with all FDA requests, the FDA may ultimately reject one or more of our (New Drug Applications) ("NDAs"). We cannot be sure that we will ever obtain regulatory clearance for our product candidate. Failure to obtain FDA approval of any of our product candidates will severely undermine our business by reducing our number of salable products and, therefore, corresponding product revenues.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize our drugs. Foreign regulatory approval processes generally include all of the risks associated with the FDA approval procedures described above. We cannot assure you that we will receive the approvals necessary to commercialize our product candidate for sale outside the United States.

Our products use novel alternative technologies and therapeutic approaches, which have not been widely studied and if these technologies are ineffective we may never develop viable products and the value of our common stock could decrease.

Our product development efforts focus on novel alternative therapeutic approaches and new technologies that have not been widely studied. These approaches and technologies may not be successful. We are applying these approaches and technologies in our attempt to discover new treatments for conditions that are also the subject of research and development efforts of many other companies and if they are found to be ineffective the value of our common stock may decrease.

If our competitors, including those who have greater resources and experience than we do, develop products or technologies that make ours obsolete or noncompetitive the value of our common stock could decrease.

Many companies are engaged in the pursuit of safe and effective therapeutics for cancer, infectious diseases, and other clinical indications of interest to the Company. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. Technological developments by others may result in our products becoming obsolete.

We are subject to significant competition from pharmaceutical and biotechnology companies, academic and research institutions, and government or other publicly-funded agencies that are pursuing the development of therapeutic products and technologies that are substantially similar to our proposed therapeutic products and technologies, or that otherwise address the indications we are pursuing. Our most significant competitors include major biotechnology companies such as Genentech, Amgen, Genzyme, Gilead Sciences, and Biogen Idec, and major pharmaceutical companies such as Merck, Pfizer, Sanofi-Aventis, Novartis, Johnson & Johnson, and Eli Lilly. All of these companies, and most of our other current and potential competitors have substantially greater research and development capabilities and financial, scientific, regulatory, manufacturing, marketing, sales, human resources, and experience than we do. Many of our competitors have several therapeutic products that have already been developed, approved and successfully commercialized, or are in the process of obtaining regulatory approval for their therapeutic products in the United States and internationally.

Universities and public and private research institutions are also potential competitors. While these organizations primarily have educational objectives, they may develop proprietary technologies or secure patent protection that we may need for the development of our technologies and products. We may attempt to license these proprietary technologies, but these licenses may not be available to us on acceptable terms, if at all.

Our competitors, either alone or with their collaborative partners, may succeed in developing technologies or products that are more effective, safer, more affordable or more easily commercialized than ours, and our competitors may obtain intellectual property protection or commercialize products sooner than we do. Developments by others may render our product candidates or our technologies obsolete making it difficult for us to generate revenues and the value of our common stock could decrease.

If we are unable to finance clinical trials, or support them in any way, our clinical trials may not be completed and our business may fail.

Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time-consuming. We estimate that clinical trials of our product candidates will take at least several years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be delayed by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, we or the FDA may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in the conduct of these trials.

If the results of our clinical trials do not support our product candidate claims the value of our common stock may decrease.

Even if our clinical trials are completed as planned, we cannot be certain that their results will support our product candidate claims. Success in pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the results of later clinical trials will replicate the results of prior clinical trials and pre-clinical testing. The clinical trial process may fail to demonstrate that our product candidates are safe for humans and effective for indicated uses. This failure would cause us to abandon a product candidate and may delay development of other product candidates.

In addition, our clinical trials involve a small patient population. Because of the small sample size, the results of these clinical trials may not be indicative of future results. Any delay in, or termination of, our clinical trials will delay the filing of our NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and could result in decrease in the value of our common stock.

If physicians and patients do not accept and use our drugs, we may be unable to generate revenue from our products.

Even if the FDA approves our product candidates, physicians and patients may not accept and use them. Acceptance and use of our product will depend upon a number of factors including:

- perceptions by members of the health care community, including physicians, about the safety and effectiveness of our drugs;
- cost-effectiveness of our product relative to competing products;
- availability of reimbursement for our products from government or other healthcare payers; and
- effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

Because we expect sales of our current product candidates, if approved, to generate substantially all of our revenues for the foreseeable future, the failure of any of these drugs to find market acceptance would harm our business and could require us to seek additional financing.

We have no commercial manufacturing capability and if we cannot find third parties to manufacture our product candidates and the materials used to make them we may be unable to generate revenue.

Completion of any clinical trials and commercialization of our product candidates require access to, or the development of, facilities to manufacture a sufficient supply of our proteins, enzymes, and other reagents needed to produce and commercialize our technology. Since we currently have no manufacturing capability of our own, we are highly dependent on contract manufacturers (“CMOs”) to produce these materials for us or our collaborators for non-clinical, clinical and/or commercial purposes. Our success depends on our ability to have these compounds manufactured on a commercial scale or to obtain commercial quantities, in either case, at reasonable cost. We may not be able to procure sufficient quantities of the products we develop, or the materials used to make them, to meet our or our collaborators' needs for non-clinical or clinical development or commercialization. We may compete with other parties for access to manufacturing facilities and suitable alternatives may be unavailable to us. As a result, our product candidates may suffer delays in manufacture if our CMOs give other products greater priority than our product candidates or the materials needed to make them. It is time-consuming and expensive to change contract manufacturers for pharmaceutical products, particularly when the products are under regulatory review in a New Drug Application process. If we fail to maintain essential manufacturing and service relationships, we may not be able to replace an important CMO or to develop our own manufacturing capabilities, either of which could impede our ability to obtain regulatory approval for our product candidates and delay or prevent our or our collaborators' product development and commercialization. If we do find replacement CMOs, we may not be able to enter into agreements with them on terms and conditions favorable to us and, there could be a considerable delay before a new facility could be qualified and registered with the appropriate authorities. If we encounter delays or difficulties in connection with manufacturing, commercialization of our products and technology could be delayed, we could have difficulty generating revenue.

The manufacture of our product candidates is a complex and highly-regulated process. If any of our CMOs encounter problems manufacturing materials for us, we may not generate revenue and the price of our common stock could decrease.

The FDA and foreign regulators require manufacturers to register manufacturing facilities. The FDA and foreign regulators also inspect these facilities to confirm compliance with good manufacturing practice (“GMP”) or similar requirements that the FDA or foreign regulators establish. The manufacture of product candidates and key reagents at any facility will be subject to strict quality control, testing, and record keeping requirements, and continuing obligations regarding the submission of safety reports and other post-market information. Ultimately, we, our CMOs, or other suppliers may not meet these requirements. Our CMOs may face manufacturing or quality control problems causing product production and shipment delays or a situation where we or they may not be able to maintain compliance with the FDA's cGMP requirements, or those of foreign regulators, necessary to continue manufacturing our product candidates and materials. Any failure to comply with GMP requirements or other FDA or foreign regulatory requirements could adversely affect our clinical research activities and our ability to market and develop our products candidates.

Additionally, we and the third parties with whom we contract to manufacture our proteins face the significant, normal scale-up risks associated with protein manufacturing: proteins are difficult to produce; it is difficult to scale up protein manufacturing processes; and it is expensive to produce proteins. These process manufacturing and/or regulatory problems could increase the cost, delay the timeline, or render unfeasible the commercial launch of our product candidates, reducing our ability to generate revenue.

If we are unable to effectively market and distribute our products we may be unable to generate significant revenue.

We currently have no sales, marketing or distribution capabilities. We do not anticipate having the resources in the foreseeable future to allocate to the sales and marketing of its proposed products. Our future success depends, in part, on our ability to enter into and maintain such collaborative relationships, the collaborator's strategic interest in the products under development and such collaborator's ability to successfully market and sell any such products. We intend to pursue collaborative arrangements regarding the sales and marketing of our products, however, there can be no assurance that we will be able to establish or maintain such collaborative arrangements, or if able to do so, that they will have effective sales forces. To the extent that we decide not to, or are unable to, enter into collaborative arrangements with respect to the sales and marketing of its proposed products, significant capital expenditures, management resources and time will be required to establish and develop an in-house marketing and sales force with technical expertise. There can also be no assurance that we will be able to establish or maintain relationships with third party collaborators or develop in-house sales and distribution capabilities. To the extent that we depend on third parties for marketing and distribution, any revenues we receive will depend upon the efforts of such third parties, and there can be no assurance that such efforts will be successful. In addition, there can also be no assurance that we will be able to market and sell our product in the United States or overseas.

If we fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish.

Our success, competitive position and future revenues will depend in part on our ability and the abilities of our licensors to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties.

To date, we hold certain exclusive rights under U.S. patent applications as well as rights under foreign patent applications. We anticipate filing additional patent applications both in the U.S. and in other countries, as appropriate. However, we cannot predict:

- the degree and range of protection any patents will afford us against competitors including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- if and when patents will issue;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; or
- whether we will need to initiate litigation or administrative proceedings which may be costly whether we win or lose.

Our success also depends upon the skills, knowledge and experience of our scientific and technical personnel, our consultants and advisors as well as our licensors and contractors. To help protect our proprietary know-how and our inventions for which patents may be unobtainable or difficult to obtain, we rely on trade secret protection and confidentiality agreements. To this end, we often require our employees, consultants, advisors and contractors to enter into agreements which prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business. These agreements may not provide adequate protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of such information. If any of our trade secrets, know-how or other proprietary information is disclosed, the value of our trade secrets, know-how and other proprietary rights would be significantly impaired and our business and competitive position would suffer.

If we infringe the rights of third parties we could be prevented from selling products, forced to pay damages, and to defend against litigation.

If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we may have to:

- obtain licenses, which may not be available on commercially reasonable terms, if at all;
- redesign our products or processes to avoid infringement;
- stop using the subject matter claimed in the patents held by others;
- pay damages; or
- defend litigation or administrative proceedings which may be costly whether we win or lose, and which could result in a substantial diversion of our valuable management resources.

Our ability to generate product revenues will be diminished if our drugs sell for inadequate prices or patients are unable to obtain adequate levels of reimbursement.

Our ability to commercialize our drugs, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payers.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payers, including Medicare, are challenging the prices charged for medical products and services. Government and other healthcare payers increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs. Even if our product candidates are approved by the FDA, insurance coverage may not be available, and reimbursement levels may be inadequate, to cover our drugs. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for any of our products, once approved, market acceptance of our products could be reduced.

We may not successfully manage our growth, which could reduce the price of our common stock.

Our success will depend upon the expansion of our operations and the effective management of our growth, which will place a significant strain on our management and on our administrative, operational and financial resources. To manage this growth, we must expand our facilities, augment our operational, financial and management systems and hire and train qualified personnel. If we are unable to manage our growth effectively, the price of our common stock could be reduced.

We may incur substantial liabilities and may be required to limit commercialization of our products in response to product liability lawsuits.

The testing and marketing of medical products entail an inherent risk of product liability. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our products. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop, alone or with corporate collaborators. We currently do not carry clinical trial insurance or product liability insurance. Although we intend to obtain clinical trial insurance prior to the commencement of any clinical trials, we, or any corporate collaborators, may not be able to obtain insurance at a reasonable cost, if at all. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Risks Related to Our Securities

Our stock may be traded infrequently and in low volumes, so you may be unable to sell your shares at or near the quoted bid prices if you need to sell your shares.

The shares of our common stock may trade infrequently and in low volumes on the OTC Bulletin Board, meaning that the number of persons interested in purchasing our common shares at or near bid prices at any given time may be relatively small or non-existent. This situation may be attributable to a number of factors, including the fact that we are a small early stage company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community who can generate or influence sales volume, and that even if we came to the attention of such institutionally oriented persons, they tend to be risk-averse in this environment and would be reluctant to follow an early stage company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained. Due to these conditions, we can give you no assurance that you will be able to sell your shares at or near bid prices or at all if you need money or otherwise desire to liquidate your shares. As a result, investors could lose all or part of their investment.

You may have difficulty selling our shares because they are deemed "penny stocks."

Since our common stock is not listed on a national securities exchange, if the trading price of our common stock remains below $5.00 per share, trading in our common stock will be subject to the requirements of certain rules promulgated under the Exchange Act, which require additional disclosure by broker-dealers in connection with any trades involving a stock defined as a penny stock (generally, any non-national securities exchange equity security that has a market price of less than $5.00 per share, subject to certain exceptions). Such rules require the delivery, prior to any penny stock transaction, of a disclosure schedule explaining the penny stock market and the risks associated therewith and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors (generally defined as an investor with a net worth in excess of $1,000,000 or annual income exceeding $200,000 individually or $300,000 together with a spouse). For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. The broker-dealer also must disclose the commissions payable to the broker-dealer, current bid and offer quotations for the penny stock and, if the broker-dealer is the sole market-maker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Such information must be provided to the customer orally or in writing before or with the written confirmation of trade sent to the customer. Monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. The additional burdens imposed upon broker-dealers by such requirements could discourage broker-dealers from effecting transactions in our common stock, which could severely limit the market liquidity of the common stock and the ability of holders of the common stock to sell their shares.

The market price of our stock may be adversely affected by market volatility.

The market price of our common stock is likely to be volatile and could fluctuate widely in response to many factors, including:

- announcements of the results of clinical trials by us or our competitors;
- developments with respect to patents or proprietary rights;
- announcements of technological innovations by us or our competitors;
- announcements of new products or new contracts by us or our competitors;
- actual or anticipated variations in our operating results due to the level of development expenses and other factors;

- changes in financial estimates by securities analysts and whether our earnings meet or exceed such estimates;
- conditions and trends in the pharmaceutical and other industries;
- new accounting standards;
- general economic, political and market conditions and other factors; and

the occurrence of any of the risks described herein.

Our principal stockholders hold a substantial amount of our common stock and may be able to prevent other stockholders from influencing significant corporate decisions.

As of September 12, 2011, our 12 largest stockholders collectively owned approximately 47% of our outstanding common stock. These stockholders, if they act together, may be able to direct the outcome of matters, including the election of our directors and other corporate actions such as:

- our merger with or into another company;
- a sale of substantially all of our assets; and
- amendments to our certificate of incorporation.

The decisions of these stockholders may conflict with our interests or those of our other stockholders.

USE OF PROCEEDS

We cannot assure you that we will receive any proceeds in connection with security offered by us pursuant to this prospectus. In the event the warrants are fully exercised by selling stockholder we will receive proceeds of approximately $5,200,000. However we will not receive any proceeds from the sale of common stock by the selling stockholders. Unless the applicable prospectus supplement states otherwise, we expect to use the net proceeds of the sale of the securities we intend to sell as a part of the shelf registration for general corporate purposes, which may include working capital, capital expenditures, acquisitions, joint ventures and stock repurchase programs. As of the date of this prospectus, we have not identified as probable any specific material proposed uses of these proceeds. If, as of the date of any prospectus supplement, we have identified any such uses, then we will describe them in the prospectus supplement. The amount of securities offered from time to time pursuant to this prospectus and any prospectus supplement, and the precise amounts and timing of the application of net proceeds from the sale of those securities, will depend upon our funding requirements. If we elect at the time of an issuance of securities to make different or more specific use of proceeds than described in this prospectus, such use will be described in the prospectus supplement relating to those securities.

PLAN OF DISTRIBUTION

In addition to the shares we are registering as a part of the shelf registration, we are registering for the selling stockholders who may be deemed to be underwriters, shares of common stock issuable upon conversion of convertible notes and upon exercise of warrants to permit the resale of these shares of common stock by the holders of the convertible notes and warrants from time to time after the date of this prospectus. See “Selling Stockholders” in this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

We and the selling stockholders may offer securities under this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. As used in this prospectus, the term selling stockholders includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from the selling stockholders as a gift, pledge, partnership distribution or other transfer. We and the selling stockholders may sell the securities (1) through underwriters or dealers, (2) through agents or (3) directly to one or more purchasers, or through a combination of such methods. We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to the prevailing market prices; or
- negotiated prices.

We and the selling stockholders may directly solicit offers to purchase the securities being offered by this prospectus. We and the selling stockholders may also designate agents to solicit offers to purchase the securities from time to time. We may include shares of the selling stockholders in conjunction with underwritten sales by us of shares of our common stock. We or the selling stockholders will name in a prospectus supplement any underwriter or agent involved in the offer or sale of the securities.

If we or the selling stockholders utilize a dealer in the sale of the securities being offered by this prospectus, we or the selling stockholders will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we or the selling stockholders utilize an underwriter in the sale of the securities being offered by this prospectus, we or the selling stockholders will execute an underwriting agreement with the underwriter at the time of sale, and we or the selling stockholders will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the selling stockholders, or the purchasers of the securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

With respect to underwritten public offerings, negotiated transactions and block trades, we or the selling stockholders will provide in the applicable prospectus supplement any compensation we or the selling stockholders pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended, which we refer to herein as the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We and the selling stockholders may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

Shares of our common stock sold pursuant to the registration statement of which this prospectus is a part will be authorized for quotation and trading on the Over the Counter Bulletin Board. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on any securities market or other securities exchange of the securities covered by the prospectus supplement. To facilitate the offering of the securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing the applicable security in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if the securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time. The selling stockholders may also sell shares of common stock in block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction, in an exchange distribution in accordance with the rules of the applicable exchange, in short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC.

The underwriters, dealers and agents may engage in other transactions with us or the selling stockholders, or perform other services for us or the selling stockholders, in the ordinary course of their business.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. This regulation may limit the timing of purchases and sales of any of the shares of common stock offered in this prospectus by the selling stockholders. The anti-manipulation rules under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of the shares to engage in market-making activities for the particular securities being distributed for a period of up to five business days before the distribution. The restrictions may affect the marketability of the shares and the ability of any person or entity to engage in market-making activities for the shares.

We have agreed with the selling stockholders to keep the portion of the registration statement of which this prospectus constitutes a part that relates to the shares offered by the selling stockholder effective until the earlier of (1) such time as all of the selling stockholders' shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which such shares may be sold without the volume limitations of Rule 144 of the Securities Act. To the extent required, this prospectus may be amended and/or supplemented from time to time to describe a specific plan of distribution.

Fees and Commissions

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

If 5% or more of the net proceeds of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA member, the offering will be conducted in accordance with NASD Conduct Rule 2720.

SELLING STOCKHOLDERS

Effective July 27, 2011, we completed an offering of $5 million of our seven (7%) percent senior convertible notes (the "Notes") with five (5) year warrants exercisable at $1.25 (the "Warrants") . The Notes and Warrants were issued in reliance on the exemptions from registration contained in Section 4(2) of the Securities Act of 1933, as amended, and Rule 506 of Regulation D promulgated thereunder. We are registering such shares of common stock issuable upon conversion of the Notes and exercise of the Warrants to permit each of the selling stockholders and their pledges, donees, transferees or other successors-in-interest that receive their shares after the date of this prospectus to resell the shares in the manner contemplated under the "Plan of Distribution". We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the shares of common stock, the convertible notes and the warrants issued pursuant to the Securities Purchase Agreement, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the selling stockholders. The second column lists 130% of the number of shares of common stock beneficially owned and offered by each selling stockholder, based on its ownership of the convertible notes and warrants, as of September 12, 2011, assuming conversion of all convertible notes and exercise of the warrants held by the selling stockholders on that date, without regard to any limitations on conversions or exercise.

In accordance with the terms of a registration rights agreement with the selling stockholders, this prospectus generally covers the resale of at least 130% of the sum of (i) the number of shares of common stock issuable upon conversion of the convertible notes as of the trading day immediately preceding the date the registration statement is filed with the SEC, (ii) the number of shares of common stock issuable as Interest Shares pursuant to the terms of the Notes as of the trading day immediately preceding the date the registration statement is filed with the SEC and (iii) the number of shares of common stock issuable upon exercise of the related warrants as of the trading day immediately preceding the date the registration statement is filed with the SEC. Because the conversion price of the convertible notes and the exercise price of the warrants may be adjusted, the number of shares that will actually be issued may be more or less than the number of shares being offered by this prospectus. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

Under the terms of the Notes and the Warrants, a selling stockholder may not convert the Notes or exercise the Warrants to the extent such conversion or exercise would cause such selling stockholder, together with its affiliates, to beneficially own a number of shares of common stock which would exceed 4.99% of our then outstanding shares of common stock following such conversion or exercise, excluding for purposes of such determination shares of common stock issuable upon conversion of the Notes which have not been converted and upon exercise of the Warrants which have not been exercised. The number of shares in the second column does not reflect this limitation. The selling stockholders may sell all, some or none of their shares in this offering. See "Plan of Distribution."

Name of Selling Stockholder	Shares of Common Stock Beneficially Owned Prior to Offering	Maximum Number of Shares That May Be Sold Pursuant to this Prospectus	Shares of Common Stock Beneficially Owned After Offering	Percent of Shares Owned After Offering
Ayer Capital Partners Master Fund, L.P.	5,628,782[1]	5,628,782	0	0
Epworth-Ayer Capital	452,462[2]	452,462	0	0
Ayer Capital Partners Kestrel Fund, LP	158,756[3]	158,756	0	0
Bristol Investment Fund, Ltd.	7,097,795[4]	4,160,000	7,097,795	8.98%
Canaccord Genuity, Inc.	104,000[5]	104,000	0	0
Cowen and Company, Inc.	104,000[6]	104,000	0	0

[1] Includes 2,164,916 shares of common stock that may be acquired through the conversion of the Company's seven (7%) percent senior convertible notes and 2,164,916 shares of common stock that may be acquired through the exercise of the Company's warrants exercisable at $1.25 issued in conjunction with the Company's July 2011 private placement as well as an additional 1,298,950 shares so that the sum total represents 130% of the shares underlying the convertible notes and warrants per the terms of the registration rights agreement with the selling stockholder. The Natural person who exercises voting and investment power for the Selling Stockholder is Jay Venkatesan.

[2] Includes 174,024 shares of common stock that may be acquired through the conversion of the Company's seven (7%) percent senior convertible notes and 174,024 shares of common stock that may be acquired through the exercise of the Company's warrants exercisable at $1.25 issued in conjunction with the Company's July 2011 private placement as well as an additional 104,414 shares so that the sum total represents 130% of the shares underlying the convertible notes and warrants per the terms of the registration rights agreement with the selling stockholder. The Natural person who exercises voting and investment power for the Selling Stockholder is Jay Venkatesan.

[3] Includes 61,060 shares of common stock that may be acquired through the conversion of the Company's seven (7%) percent senior convertible notes and 61,060 shares of common stock that may be acquired through the exercise of the Company's warrants exercisable at $1.25 issued in conjunction with the Company's July 2011 private placement as well as an additional 36,636 shares so that the sum total represents 130% of the shares underlying the convertible notes and warrants per the terms of the registration rights agreement with the selling stockholder. The Natural person who exercises voting and investment power for the Selling Stockholder is Jay Venkatesan.

[4] Includes 1,600,000 shares of common stock that may be acquired through the conversion of the Company's seven (7%) percent senior convertible notes and 1,600,000 shares of common stock that may be acquired through the exercise of the Company's warrants exercisable at $1.25 issued in conjunction with the Company's July 2011 private placement as well as an additional 960,000 shares so that the sum total represents 130% of the shares underlying the convertible notes and warrants per the terms of the registration rights agreement with the selling stockholder. The Natural person who exercises voting and investment power for the Selling Stockholder is Paul Kessler.

[5] Includes 80,000 shares of common stock that may be acquired through the exercise of the Company's warrants exercisable at $1.25 issued in conjunction with the Company's July 2011 private placement as well as an additional 24,000 shares so that the sum total represents 130% of the shares underlying the warrants per the terms of the registration rights agreement with the selling stockholder. The Natural person who exercises voting and investment power for the Selling Stockholder is Eugene Rozelman.

[6] Includes 80,000 shares of common stock that may be acquired through the exercise of the Company's warrants exercisable at $1.25 issued in conjunction with the Company's July 2011 private placement as well as an additional 24,000 shares so that the sum total represents 130% of the shares underlying the warrants per the terms of the registration rights agreement with the selling stockholder. The Natural person who exercises voting and investment power for the Selling Stockholder is Kevin Raidy.

THE SECURITIES WE MAY OFFER

We may sell from time to time, in one or more offerings: common stock; and/or warrants. The descriptions of the securities contained in this prospectus summarize the material general terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include in the prospectus supplement information, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange or market, if any, on which the securities will be listed.

The following summary describes the material terms of our common stock and is subject to, and qualified in its entirety by, our articles of incorporation and bylaws that are included as exhibits to certain of the documents incorporated by reference below. We refer you to the foregoing documents for a detailed description of the provisions summarized below.

DESCRIPTION OF COMMON STOCK

General

We are authorized to issue 1,800,000,000 shares of common stock with a par value of $0.000041666. We are not authorized to issue shares of preferred stock. As of October 24, 2011 there were approximately 79,083,591 shares of common stock outstanding. As of October 24, 2011 there were approximately 49 holders of record of our common stock.

The aggregate market value of our common stock, par value $0.000041666 per sharer, held by non-affiliates, based upon the average of the bid and asked prices of our common stock of $1.59 on June 6, 2011, as reported on the Over the Counter Bulletin Board was $118,296,157.50 and the last price that our common stock was sold prior to the original filing of this Form S-3 was $1.40 on June 28, 2011 which would be an aggregate market value of $104,160,138.68. For purposes of this disclosure, shares of common stock held by persons who hold more than 10% of the outstanding shares of common stock (or any holder of shares of common stock in excess of 5% who has not affirmatively disclaimed affiliate status) and shares held by officers and directors of the Registrant (or those who were formally officers and directors within ninety (90) days) have been excluded because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily conclusive for other purposes.

If we offer shares of our common stock for sale under this prospectus, we will provide a prospectus supplement that describes the terms of the offering, including the number of shares offered and the offering price.

Voting Rights

Each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of stockholders. There are no cumulative voting rights.

Dividends

Each stockholder is entitled to receive the dividends as may be declared by our board of directors out of funds legally available for dividends and, in the event of liquidation, to share pro rata in any distribution of our assets after payment of liabilities. Our board of directors is not obligated to declare a dividend. Any future dividends will be subject to the discretion of our board of directors and will depend upon, among other things, future earnings, the operating and financial condition of our company, its capital requirements, general business conditions and other pertinent factors. It is not anticipated that dividends will be paid in the foreseeable future.

Other Rights

Upon liquidation, dissolution or winding up of the corporation, the holders of common stock are entitled to share ratably in all net assets available for distribution to stockholders after payment to creditors. Our common stock is not convertible or redeemable and has no preemptive, subscription or conversion rights. There is no conversion, redemption, sinking fund or similar provisions regarding our common stock.

There are no provisions in our articles of incorporation or our bylaws that would delay, defer or prevent a change in control of our company.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Corporate Stock Transfer, Inc., 3200 Cherry Creek Drive South, Suite 430, Denver, Colorado 80209, (303) 282-4800.

Listing

Our common stock is traded on the Over-the-Counter Bulletin Board under the symbol "GNBP.OB." Any common stock we sell under this prospectus, as it may be supplemented, will be quoted on the Over-the-Counter Bulletin Board.

DESCRIPTION OF WARRANTS

We may offer to sell warrants from time to time. If we do so, we will describe the specific terms of the warrants in a prospectus supplement. In particular, we may issue warrants for the purchase of common stock, in one or more series. We may also issue warrants independently or together with other securities and the warrants may be attached to or separate from those securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock, the number of shares of common stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;

- the manner in which the warrant agreement and warrants may be modified;
- certain United States federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific material terms, preferences, rights or limitations of or restrictions on the warrants.

You may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with other requested information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If you exercise fewer than all of the warrants represented by the warrant certificate, then we will issue you a new warrant certificate for the remaining amount of warrants.

You will not have any of the rights of the holders of the securities purchasable upon the exercise of warrants until you exercise them. Accordingly, you will not be entitled to, among other things, vote or receive dividend payments or similar distributions on the securities you can purchase upon exercise of the warrants.

The information provided above is only a summary of the terms under which we may offer warrants for sale. Accordingly, please carefully review the applicable warrant agreement for more information about the specific terms and conditions of these warrants before investing in us. In addition, please carefully review the information provided in the applicable prospectus supplement, which contains additional information that is important for you to consider in evaluating an investment in our securities.

LEGAL MATTERS

Certain legal matters with respect to the validity of the securities offered under this prospectus and any supplement hereto will be passed upon for us by the Swanson Law Firm, LLC, Las Vegas Nevada. Counsel for any underwriter or agents will be noted in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements as of December 31, 2010 and 2009 and for the years then ended, incorporated in this prospectus by reference from Genesis Biopharma Inc. Annual Report on Form 10-K for the year ended December 31, 2010 and 2009, have been audited by Weinberg & Company, an independent registered public accounting firm, as stated in their reports (which reports include an explanatory paragraph as to the Company's ability to continue as a going concern), that are incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any documents that we have filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our Securities and Exchange Commission filings are also available to the public at the Securities and Exchange Commission's website at http://www.sec.gov.

This prospectus is part of a registration statement that we filed with the SEC. This prospectus and any subsequent prospectus supplements do not contain all of the information in the registration statement as permitted by the rules and regulations of the SEC. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's web site listed above.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" some of the documents we file with it into this prospectus, which means:

- we can disclose important information to you by referring you to those documents;
- the information incorporated by reference is considered to be part of this prospectus; and
- later information that we file with the SEC will automatically update and supersede this incorporated information.

We incorporate by reference the documents listed below, which were filed with the SEC under the Exchange Act:

- our Current Reports on Form 8-K filed with the SEC on January 3, 2011, February 11, 2011, February 23, 2011, March 17, 2011, April 22, 2011, June 16, 2011, July 20, 2011, July 22, 2011, July 29, 2011, August 11, 2011, October 11, 2011, October 13, 2011 and October 20, 2011
- our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, filed with the SEC on April 14, 2011;
- our Amended Annual Report on Form 10-K/A for the fiscal year ended December 31, 2010, filed with the SEC on May 4, 2011;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2011 filed with the SEC on May 20, 2011;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2011 filed with the SEC on August 22, 2011; and
- our Amended Quarterly Report on Form 10-Q/A for the fiscal quarter ended June 30, 2011 filed with the SEC on September 1, 2011.

All documents filed under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (not including any information furnished under Item 2.02 or Item 7.01 of Form 8-K, which information is not incorporated by reference herein), after the date of this prospectus and prior to the termination of this offering shall be deemed to be incorporated by reference in this prospectus and to be part of this prospectus from the date they are filed. In addition, all documents filed pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement and prior to the effectiveness of the registration statement of which this prospectus forms a part shall be deemed to be incorporated by reference in this prospectus and to be part of this prospectus from the date they are filed.

You should assume that the information appearing in this prospectus is accurate as of the date of this prospectus only. Our business, financial position and results of operations may have changed since that date.

We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of that person, a copy of any and all of the information that has been incorporated by reference in this prospectus (excluding exhibits unless specifically incorporated by reference into those documents). Please direct requests to us at the following address:

GENESIS BIOPHARMA, INC.
11500 Olympic Boulevard
Suite 400
Los Angeles, California 90064
(866) 963-2220

GENESIS BIOPHARMA, INC.

150,000,000 Shares

Common Stock
Warrants

We have not authorized any dealer, salesperson or other person to give you written information other than this prospectus or to make representations as to matters not stated in this prospectus. You must not rely on unauthorized information. This prospectus is not an offer to sell these securities or our solicitation of your offer to buy the securities in any jurisdiction where that would not be permitted or legal. Neither the delivery of this prospectus nor any of the sales made hereunder after the date of this prospectus shall create an implication that the information contained herein or our affairs have not changed since the date hereof.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. ***Other Expenses of Issuance and Distribution.***

The following are the estimated expenses of the issuance and distribution of the securities being registered by us. All of the items below, except for the registration fee, are estimates.

Securities and Exchange Commission Registration Fee	$	19,330.65
Legal Fees and Expenses	$	[·]*
Accounting Fees and Expenses	$	[·]*
Transfer Agent Fees and Expenses	$	[·]*
Printing and Engraving Expenses	$	[·]*
Miscellaneous	$	[·]*
TOTAL	$	[·]*

*These fees are not presently known and cannot be estimated at this time as they are based upon the amount and type of security being offered as well as the number of offerings.

Item 15. ***Indemnification of Directors and Officers.***

Neither our Articles of Incorporation nor Bylaws prevent us from indemnifying our officers, directors and agents to the extent permitted under the Nevada Revised Statute ("NRS"). NRS Section 78.7502, provides that a corporation shall indemnify any director, officer, employee or agent of a corporation against expenses, including attorneys' fees, actually and reasonably incurred by him in connection with any the defense to the extent that a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to Section 78.7502(1) or 78.7502(2), or in defense of any claim, issue or matter therein. NRS 78.7502(1) provides that a corporation may 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, except an action by or in the right of the corporation, by reason of the fact that he is or was a director, officer, 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 the action, suit or proceeding if he: (a) is not liable pursuant to NRS 78.138; or (b) acted in good faith and in a manner which 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.

NRS Section 78.7502(2) provides that a corporation may 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 he is or was a director, officer, 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 amounts paid in settlement and attorneys' fees actually and reasonably incurred by him in connection with the defense or settlement of the action or suit if he: (a) is not liable pursuant to NRS 78.138; or (b) acted in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim of indemnification against such liabilities (other than the payment by us of expenses incurred or paid by a director, officer or controlling person of ours 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, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Item 16. ***Exhibits***

The exhibits required to be filed as a part of this Registration Statement are listed in the Exhibit Index attached hereto and incorporated herein by reference.

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 20 percent 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; *provided*, *however* , that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of 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) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) 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

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) 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) 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.

(5) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement 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.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchase 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 the purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(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 Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liability (other than a 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 proceedings) 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 Securities 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 certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be singed on its behalf by the undersigned, thereunto duly authorized, in the City of Los Angeles, State of California, on October 27, 2011.

GENESIS BIOPHARMA, INC.

By: /s/ Anthony J. Cataldo
Name: Anthony J. Cataldo
Title: Chairman, Principal Executive Officer, and President

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.

Signature	Title	Date
/s/ Anthony J. Cataldo **Anthony J. Cataldo**	**Chairman, Principal Executive Officer, and President**	October 27, 2011
* **Michael Handelman**	**Director, Principal Financial and Accounting Officer, Executive Vice President and Secretary**	October 27, 2011
* **Dr. William Andrews**	**Director**	October 27, 2011
* **Dr. L. Stephen Coles**	**Director**	October 27, 2011
* **Merrill A. McPeak**	**Director**	October 27, 2011
* **Martin Schroeder**	**Director**	October 27, 2011
* **David Voyticky**	**Director**	October 27, 2011

* By Anthony J. Cataldo, attorney in fact

EXHIBIT INDEX

Exhibit	Description
1.1*	Form of Underwriting Agreement.
3.1	Articles of Incorporation filed with the Nevada Secretary of State on September 7, 2007 (incorporated herein by reference to Exhibit 3.1 of the Registrant's Registration Statement on Form SB-2 filed with the Commission on January 29, 2008).
3.2	Bylaws (incorporated herein by reference to Exhibit 3.2 to the Registrant's Registration Statement on Form SB-2 filed with the Commission on January 29, 2008).
3.3	Certificate of Change to Articles of Incorporation filed with the Nevada Secretary of State on March 15, 2010 (incorporated herein by reference to Exhibit 3.1.2 of the Registrant's Form 8-K filed with the Commission on March 19, 2010).
4.3*	Form of Warrant Agreement.
4.4*	Form of Warrant Certificate.
5.1**	Opinion of the Swanson Law Firm LLC.
10.1	Form of Securities Purchase Agreement effective July 27, 2011 between Genesis Biopharma, Inc. and selling stockholders (incorporated herein by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.2	Form of seven (7%) percent senior convertible note effective July 27, 2011 as issued by Genesis Biopharma Inc. to selling stockholders (incorporated herein by referenced to Exhibit 10.2 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.3	Form of Warrant as issued to selling stockholders effective July 27, 2011 (incorporated herein by reference to Exhibit 10.3 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.4	Form of Escrow Agreement between Genesis Biopharma Inc. and the selling stockholders effective July 27, 2011 (incorporated herein by reference to Exhibit 10.4 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.5	Form of Registration Rights Agreement between Genesis Biopharma Inc. and the selling stockholders effective July 27, 2011 (incorporated herein by reference to Exhibit 10.5 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.6	Form of Traunch B seven (7%) percent senior convertible note as issued by Genesis Biopharma Inc. to selling stockholders (incorporated herein by reference to Exhibit 10.6 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.7	Form of Traunch B Warrant as issued by Genesis Biopharma Inc. to selling stockholders (incorporated herein by reference to Exhibit 10.7 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.8	Form of Placement Agreement Warrant as issued to Cannacord Genuity, Inc. and Cowen and Company, Inc. effective July 27, 2011 (incorporated herein by reference to Exhibit 10.8 of the Registrant's Form 8-K filed with the Commission on July 29, 2011).
10.9	Patent License Agreement between the Company and the National Institutes of Health effective October 5, 2011 (incorporated herein by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the Commission on October 11, 2011).***
10.10	Cooperative Research and Development Agreement for Intramural-PHS Clinical Research, dated August 5, 2011, between the U.S. Department of Health and Human Services, as represented by the National Cancer Institute and the Company. (incorporated herein by reference to Exhibit 10.1 of the Registrant's Form 8-K/A (No.1) filed with the Commission on October 13, 2011). ***
10.11	Form of Employment Agreement dated as of May 1, 2011 between the Company and Anthony J. Cataldo (incorporated herein by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the Commission on October 20, 2011).
10.12	Form of Employment Agreement dated as of May 1, 2011 between the Company and Michael Handelman (incorporated herein by reference to Exhibit 10.2 of the Registrant's Form 8-K filed with the Commission on October 20, 2011).
10.13	Genesis Biopharma Inc. Equity Incentive Plan (incorporated herein by reference to Exhibit 10.3 of the Registrant's Form 8-K filed with the Commission on October 20, 2011).
10.14	Form of ISO Stock Option Agreement for grants under the Genesis Biopharma Inc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.4 of the Registrant's Form 8-K filed with the Commission on October 20, 2011).
10.15	Form of NQSO Stock Option Agreement for grants under the Genesis Biopharma Inc. 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.5 of the Registrant's Form 8-K filed with the Commission on October 20, 2011).
23.1	Consent of Independent Registered Public Accounting Firm – Weinberg & Company, P.A.
23.2	Consent of the Swanson Law Firm LLC (included in Exhibit 5.1 to this Registration Statement).

24.1 Power of Attorney (incorporated herein by reference to the Registrant's Registration Stated on Form S-3/A No. 1 filed with the Commission on September 13, 2011).

* To be filed, if necessary, with a Current Report on Form 8-K or a Post-Effective Amendment to the registration statement.

** To be filed by amendment.

*** Certain portions of the Exhibit have been omitted based upon a request for confidential treatment filed by us with the Commission. The omitted portions of the Exhibit have been separately filed by us with the Commission.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of
Genesis Biopharma, Inc.

We consent to the inclusion in the foregoing Amendment No. 2 to the Registration Statement on Form S-3 of our report dated April 14, 2011, relating to the financial statements of Genesis Biopharma, Inc. as of December 31, 2010 and 2009 and for the years then ended, which appears in the Genesis Biopharma, Inc. Annual Report on Form 10-K for the fiscal years ended December 31, 2010 and 2009 filed with the Securities and Exchange Commission on April 14, 2011. We also consent to the reference to our firm under the caption "Experts".

Weinberg & Company, P.A.

Los Angeles, California
October 27, 2011