

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

FORM 10-K
FOR ANNUAL AND TRANSITION REPORTS
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES AND EXCHANGE ACT OF 1934

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____.

Commission File Number 000-30929

KERYX BIOPHARMACEUTICALS, INC.
(Exact Name of Registrant as Specified in Its Charter)

DELAWARE
(State or Other Jurisdiction of
Incorporation or Organization)

13-4087132
(I.R.S. Employer
Identification No.)

101 Main Street
Cambridge, Massachusetts
(Address of Principal Executive Offices)

02142
(Zip Code)

Registrant's telephone number, including area code: 617-494-5515

Securities registered pursuant to Section 12(b) of the Act:

NONE

Securities registered pursuant to Section 12(g) of the Act:

COMMON STOCK, PAR VALUE \$0.001 PER SHARE

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in the definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Annual Report on Form 10-K.

As of March 21, 2002, the aggregate market value of the Common Stock held by non-affiliates of the registrant was \$70,785,136. Such aggregate market value was computed by reference to the closing sale price of the Common Stock as reported on the National Market segment of The Nasdaq Stock Market on such date. For purposes of making this calculation only, the registrant has defined affiliates as including all directors, executive officers and 10% stockholders of the Company.

As of March 21, 2002, there were 19,895,185 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

As stated in Part III of this Annual Report on Form 10-K, portions of the registrant's definitive proxy statement for the registrant's 2002 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K.

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This Form 10-K contains trademarks and trade names of Keryx Biopharmaceuticals, Inc., including our name, logo and the KinAce mark. This Form 10-K may also include trademarks and trade names of other companies.

PART I

ITEM 1. BUSINESS.

Overview

We use data discovered through the mapping of the human genome to generate drug candidates that target the regulation of protein kinases. Protein kinases play a key role in the way cells communicate. We believe that our approach to drug design allows us to discover more drug candidates in less time and with lower levels of toxicity than our competitors. We are focusing our development efforts on several KinAce leads in the areas of oncology, metabolism and immunology. We recently obtained the exclusive worldwide rights to a novel technology, which we call Small Integrated Building-blocks, or SIB, for the conversion of peptides and other existing drugs into small molecules that have the potential for oral delivery. We believe the SIB technology will prove to be an important adjunct to our core KinAce platform, as well as potentially expanding the business opportunities for our other compounds and technologies.

In addition to developing drug candidates with our KinAce platform, we have been developing sulodexide, or KRX-101, to which we have an exclusive license in North America, Japan and other markets. Our efforts in this area have included extensive discussions with the United States Food and Drug Administration, referred to as the FDA, concerning our planned Phase III clinical trials of KRX-101 for the treatment of the kidney disease known as diabetic nephropathy. The FDA granted KRX-101 its "Fast-Track" designation for the treatment of diabetic nephropathy. We have also initiated a Phase II clinical trial of KRX-101 in South Africa for the treatment of HIV-associated nephropathy, or HIVAN.

To date, none of our drug candidates has received approval for sale in any market.

Our Strategy

We intend to:

- o advance KRX-101 into a Phase III clinical trial program for diabetic nephropathy and pursue its use to treat additional diseases;
- o complete our Phase II clinical trial of KRX-101 in South Africa for HIVAN;
- o complete pre-clinical development of KRX-123 for hormone-resistant prostate cancer and file an initial new drug application to enter clinical trials for this drug candidate;

- o use our KinAce platform to generate new drug candidates especially in the areas of oncology and metabolic and immunological diseases;
- o begin development of small molecule drug leads based on our SIB technology;
- o develop our drug candidates internally or license them to others based on an assessment of clinical and financial resources; and
- o further develop and expand our existing relationships with corporate collaborators and initiate new relationships for the development, marketing and distribution of our drug candidates.

Corporate Information

We were incorporated as a Delaware corporation in October 1998. Although we started operating our business in November 1999, many of our principal technologies and drug candidates were developed by our predecessor company, Partec Ltd., and its subsidiaries during the period January 1997 to November 1999. Consequently, in this report, "we", "us" and "our" refer to Keryx Biopharmaceuticals, Inc., its predecessor company and its or our respective subsidiaries unless the context requires otherwise. Our executive offices are located at 101 Main Street, Cambridge, Massachusetts 02142. Our telephone number is 617-494-5515. Our e-mail address is info@keryx.com. We also maintain an office at 7 Hartom Street, Har Hotzvim, Jerusalem, 91236, Israel, where we conduct a substantial amount of our operations.

KRX-101

Overview

We have obtained a license to develop sulodexide, or KRX-101, to treat diabetic nephropathy and other conditions. Sulodexide is a drug that has been sold in Europe for many years by our licensor for other medical conditions and has a well-established safety profile for these conditions. After having filed an application with the FDA to begin clinical trials of KRX-101 to treat nephropathy in Type II diabetics, we received input on designing protocols for Phase III clinical trials. Over the past year, we have had discussions with both the FDA and prospective corporate partners concerning the design and conduct of the Phase III clinical trials. Based upon our work and these discussions, we recently filed our preferred protocols with the FDA. We hope to meet with the FDA in the near future and receive its concurrence with our plans for these Phase III clinical trials.

There are an estimated 10.3 million diagnosed diabetics in the United States, of whom approximately 90% have been diagnosed with Type II diabetes. Type II diabetes results from the body's inability to properly use insulin, as distinguished from Type I diabetes that results from the body's inability to manufacture insulin. The American Diabetes Association, or ADA, estimates that between 10% and 20% of diagnosed Type II diabetics have nephropathy. These figures suggest that approximately one to two million diagnosed Type II diabetics in the United States have nephropathy. We believe the estimated potential annual market for KRX-101 for the treatment of diabetic nephropathy is in excess of one billion dollars.

Scientific Background

Diabetes often damages the intricate system of delicate capillary loops, or glomeruli, in the human kidney. As these loops lose their structural integrity, their ability to selectively filter the blood's contents diminishes and protein, chiefly albumin, is lost into the urine resulting in diabetic nephropathy. The presence of albumin in urine, known as albuminuria, causes direct damage to

other crucial kidney structures. This damage may eventually result in kidney failure, which can be treated only by dialysis or kidney transplantation.

KRX-101 repairs and maintains glomerular membranes, thus reducing protein leakage, and directly inhibits the inflammation and scarring of structures within the kidney. We believe these beneficial effects may delay or prevent kidney failure resulting from diabetic nephropathy.

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Development Status

There have been more than 20 studies published in leading medical journals assessing the safety of KRX-101 in humans. KRX-101 has been administered to more than 3,000 patients in clinical trials conducted in Europe for the treatment of certain diabetic and non-diabetic conditions and, to our knowledge, has not demonstrated any significant side effects for those uses.

Captopril, a type of drug known as an ACE inhibitor, was approved by the FDA for Type I diabetes with macroalbuminuria, a condition in which large amounts of protein is inappropriately excreted by the kidneys. However, the FDA has not approved the use of ACE inhibitors for Type II diabetic nephropathy, as clinical trials have not conclusively demonstrated the beneficial effects of ACE inhibitors in this patient population. In the absence of approved drugs for Type II diabetic nephropathy, the ADA has recommended the use of ACE inhibitors for Type II diabetic nephropathy. However, studies have demonstrated that ACE inhibitors are not as effective for nephropathy of Type II diabetes as they are for nephropathy of Type I diabetes. In addition, patients with Type II diabetes experience more frequent side effects from ACE inhibitors than the general population. Recently, several pharmaceutical companies have attempted to develop angiotension receptor blockers, or ARBs, to treat diabetic nephropathy. However, a recent FDA advisory committee recommended that the FDA reject one such drug for the treatment of diabetic nephropathy.

The licensor of KRX-101 conducted a Phase II study of the use of sulodexide to treat diabetic nephropathy, in 200 patients in Europe between 1996 and 1999. The trial was a four-month dose response trial that showed a clear relationship between dosage levels and reduction in albuminuria. This trial also demonstrated a reduction in albuminuria in patients with Type II diabetes being treated with ACE inhibitors. In June 2000, we filed an investigational new drug application, or IND, with the FDA for permission to conduct a clinical trial for Type II diabetic nephropathy. This application contains data from the 200-person clinical trial for this condition conducted by the licensor. On the basis of this data and the IND we submitted in June 2000, the FDA invited us to submit a protocol for a pivotal Phase III clinical trial. The ultimate clinical timeline, and consequent cost, for further development of KRX-101 will depend on the FDA's acceptance of the protocols we have recently filed or, alternatively, on any requests the FDA might have to alter such protocols.

Additional Indications

We believe KRX-101 has significant potential to treat other diseases. These conditions include, but are not limited to, HIVAN, a condition we believe shares a similar mechanism of action as diabetic nephropathy, pre-eclampsia, a complication of pregnancy involving a sudden rise in blood pressure, and the nephrotic syndrome, a condition marked by deficiency of albumin in the blood. We recently initiated a Phase II clinical trial in South Africa for the treatment of HIVAN. In addition, we have filed patent applications to cover the use of KRX-101 for the treatment of HIVAN and other indications.

KinAce Drug Discovery Platform

Overview

We believe our KinAce platform represents one of the first practical uses of the genomics database to systematically generate drug candidates that target protein kinases. We use computer programs to analyze genomic data that then enables us to create compounds that aim to regulate kinases.

Protein kinases play a key role in the way cells communicate. When protein kinases give an inappropriate signal, the result is often a disease or other unwanted medical condition. Our KinAce platform uses a proprietary algorithm to identify unique regulatory regions within each kinase. Once

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this unique regulatory region is identified, we can duplicate it to form the basis of a compound that can potentially inhibit or stimulate the signal transduction pathway associated with that kinase. During the last year, we have focused on developing what we believe are our most promising compounds, including KRX-123 for hormone-resistant prostate cancer, KRX-683 for Type II diabetes and KRX-211 for immunological disorders.

We expect to file in 2002 an IND to enter human clinical trials for our first KinAce compound, KRX-123 for hormone-resistant prostate cancer. We believe hormone-resistant prostate cancer, for which there is currently no curative treatment, represents an estimated potential annual worldwide market in excess of \$450 million. We are developing our other KinAce compounds through a combination of in-house efforts and research and development agreements with others.

Scientific Background

Cells within the human body, like those within all living organisms, communicate with each other to coordinate their growth and differentiation. The primary mechanism by which cells communicate is a messenger system comprising the transmission of biochemical signals. These "signals" are soluble molecules that are secreted by cells. In general, signals from outside a cell come into contact with a receptor on the cell surface and are then "transduced" across the cell membrane. The signal is then propagated along specific pathways within the cell by molecules that transmit the signal to specific target organelles. Protein kinases function as these cellular messengers.

Scientists have estimated that over 600 distinct protein kinases exist in the human genome. Protein kinases control a variety of functions carried out by cells and may contribute to disease if they are "turned on" when they should be "turned off," or "turned off" when they should be "turned on." For example, in certain cancers, the excess activity of protein kinases allows uncontrolled cell division. "Turning off" these protein kinases may provide one method of halting the growth of malignancies. Conversely, increasing protein kinase activity when it is inadequate may improve other unwanted medical conditions.

We use our KinAce platform technology to develop small compounds designed to inhibit or stimulate the activity of a precise region of a specific kinase. Each small compound mimics the precise region unique to the target kinase.

Advantages of the KinAce Approach

We believe that our KinAce platform has the following advantages over traditional drug discovery methods.

- o Increased hit rate. Our KinAce platform targets highly specific kinase regions, and once identified it is less complicated to ascertain precisely which compound will have the desired biological effect on that region. Accordingly, we are able to focus our efforts on only ten to twenty compounds for testing per kinase target.
- o Reduced time to discovery. Our approach enables us to reduce the time from discovery to drug lead, while avoiding the need to use

high-throughput screening.

- o Reduced toxicity. We believe the increased specificity of our drug candidates should result in less toxicity. Our drug candidates are designed to regulate a region unique to a particular kinase

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and cause biological changes that are specific to the functions of that kinase alone. Other drug discovery methods target a region that is common to many kinases and consequently are more likely to also cause biological changes in healthy cells. Toxicity may occur when the treatment has a negative impact on the functions of healthy cells as well as on the targeted site.

- o Greater versatility. We believe that our ability to stimulate, as well as inhibit, protein kinases makes our drug candidates more versatile in the treatment of diseases and conditions. Compounds of our competitors typically aim only to inhibit kinase activity. In addition, the platform is applicable to a wide range of kinases.
- o Applicability to small molecule technology. Using our recently acquired SIB technology, we can convert our peptide leads into what we believe are pharmaceutically more attractive small molecules. Small molecules have improved formulation and delivery profiles. Additionally, we believe that the rational approach of our KinAce technology will allow for the rational, accelerated design of SIB-based small molecules.

Product Development Programs

During 2001, we made a strategic decision to narrow our focus and concentrate on the development of our most promising leads in the areas of oncology, metabolism and immunology. Below is a description of these leads.

Oncology

KRX-123--Hormone-Resistant Prostate Cancer

Our most advanced KinAce drug candidate is KRX-123 for the treatment of hormone-resistant prostate cancer, referred to as HRPC, a currently incurable condition with an estimated potential annual market size in excess of \$450 million. We found that Lyn kinase, a member of the Src protein kinase family is over-expressed in HRPC. We have generated in-vitro and in-vivo data showing that HRPC can be treated through KRX-123's regulation of Lyn kinase pathway. We also have observed significant regression in hormone-resistant prostate tumors during pre-clinical testing when compared to control groups. As a result of additional formulation work needed to optimize this drug product, we now anticipate the filing of an IND for this clinical trial will occur by the end of 2002.

Due to the rapidly fatal nature of HRPC and the absence of any FDA-approved curative treatment for this condition, we believe we may be able to attain FDA "fast track" review status for our IND. If we obtain marketing approval for KRX-123 for the treatment of HRPC, we intend to expand the indications of the drug to treat hormone-sensitive, or earlier stage, prostate cancers.

Metabolism

KRX-683--Type II Diabetes

Type II diabetes is often a result of defective energy metabolism. Epidemiological evidence strongly suggests that there is a nutritional component associated with this form of diabetes. People who are obese have an increased incidence of Type II diabetes, a condition known as the diabetes syndrome.

We have identified a specific kinase that we believe to be involved with glucose metabolism. We believe that upregulation of this protein kinase in persons afflicted with Type II diabetes causes a decreased metabolic rate with resultant insulin resistance and hyperglycemia. We have tested KRX-683, an inhibitor of this kinase, in both in-vitro and in-vivo tests. The in-vivo tests have shown a drop in serum glucose levels upon administration of KRX-683, with lower levels of glucose being maintained even after we ceased to administer KRX-683. We believe that the maintenance of lower glucose levels even after discontinuation of KRX-683 is quite significant, as it provides evidence that KRX-683 may have long-lasting effects on metabolic regulation. We believe these tests have also helped validate our KinAce concept.

The efficacy of KRX-683 is currently being tested in other models of Type II diabetes. Also underway is extensive pre-clinical testing to determine appropriate dosing, potential toxicities, and side effects. We also plan to investigate other indications for this agent.

Immunology

KRX-211--Septic Shock

There are an estimated 500,000 cases of septic shock in the United States each year. Septic shock is a life-threatening reaction to a severe infection, for which there is currently no FDA-approved treatment. During septic shock, bacteria produce toxins that cause a cascade of events resulting in extremely low blood pressure and subsequent multiple organ failure. The mortality rate for those with septic shock is approximately 50%.

We have designed KRX-211 to inhibit JAK3, a protein kinase presumed to be implicated in septic shock. We have demonstrated the effectiveness of KRX-211 in-vitro and in an in-vivo model of septic shock. One hour after symptoms of septic shock arose, half of the test group was injected with KRX-211, and a control group was injected with a placebo solution. After 48 hours, 80% of the test group treated with KRX-211 survived, while none in the control group survived.

The NIH has selected KRX-211 to undergo extensive in-vivo testing in preparation for clinical trials. These tests, involving more than 1,000 animals, are anticipated to last up to 12 months. We are currently developing a formulation of KRX-211 that will address certain issues that arose in the initial in-vivo tests.

Further pre-clinical and clinical testing for septic shock will be very expensive. Therefore, we intend to fully support the ongoing NIH testing, and following the successful conclusion of such testing, we intend to license KRX-211 to a partner with the resources to clinically develop this compound.

KRX-211 has also demonstrated efficacy in in-vivo models for the treatment of rheumatoid arthritis and experimental allergic encephalitis (a model of multiple sclerosis). We intend to continue internally the preclinical development of this compound to treat immunological disorders.

The SIB Technology

Overview

We recently obtained worldwide exclusive rights to a technology, known as the Small Integrated Building-block, or SIB, technology, developed by Haim Gilon, a professor of chemistry at the Hebrew University of Jerusalem. We

believe the SIB technology will enable the design of proprietary small molecule mimics of our KinAce-derived peptides by a modular scaffold building technique that can be likened to building with Legos. We anticipate that the SIB technology will also be able to generate libraries of related compounds that may result in small molecules that increase the pharmacological attractiveness of the original KinAce-derived compound.

Advantages

We believe that the SIB technology may offer us the following advantages:

- o For certain indications, such as diabetes, the conversion of our peptides into small molecules may increase the attractiveness and value of those KinAce-derived compounds because small molecules (i) more easily penetrate the cell membrane, (ii) can be delivered orally, and (iii) are, on average, easier and less costly to manufacture than peptides.
- o SIB-designed small molecules exhibit increased flexibility thereby allowing for increased complimentary conformation, or induced fit, and, consequently, improved pharmacological benefits.
- o The SIB technology can be used to design small molecule mimics of other non-Keryx peptide drugs.

Competition

KRX-101

ACE inhibitors are the current standard of care recommended by the American Diabetes Association to treat diabetic nephropathy. ACE inhibitors are marketed by a number of companies. However, ACE inhibitors are not FDA-approved for, or as effective in, nephropathy of Type II diabetes as they are for nephropathy of Type I diabetes. Preliminary clinical evidence suggests that KRX-101 may be additive with ACE inhibitors for nephropathy of both Type I and Type II diabetes by reducing albuminuria further than ACE therapy alone.

Other companies are developing drugs designed to treat diabetic complications, including Exocell, Inc., which has one compound aimed at nephropathy in a Phase III clinical trial.

KinAce Platform

Several biotechnology and pharmaceutical companies are active in the field of signal transduction, including Sugent, Inc. (a subsidiary of Pharmacia-Upjohn), Ariad Pharmaceuticals Inc., Tularik, Inc., Ligand Pharmaceuticals Inc. and ICOS Corporation. In addition, Vertex Pharmaceuticals, Inc. and Novartis Pharma AG have formed an alliance to discover eight kinase inhibitors.

Generally, our competitors target common, non-specific regions within protein kinases to identify lead compounds. This drug discovery method generates a large number of compounds that must be tested by high throughput screening before a drug candidate is found. We believe that our targeted

approach to drug discovery gives us a significant advantage over our competitors by allowing us to generate more drug candidates in less time and with potentially lower toxicities.

In addition, a significant number of products are in clinical development for HRPC. These products adopt a variety of therapeutic approaches and may compete with KRX-123 in the future.

Intellectual Property

General

Patents and other proprietary rights are very important to the development of our business. We will be able to protect our proprietary technologies from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents or are effectively maintained as trade secrets. It is our intention to seek and maintain patent protection for our drug candidates and our proprietary technologies.

KRX-101

Pursuant to our license for KRX-101, we have obtained rights to twelve families of patents and applications. These include at least 54 patents issued in various countries, of which ten are issued in the United States. The licensed patent families cover the use of KRX-101 to treat diabetic nephropathy and retinopathy, the use of related compounds to treat diabetic nephropathy, neuropathy and retinopathy, and processes for making diverse heparin derivatives. The licensed patent families also cover multiple processes for making a wide variety of heparin derivatives. These patents and applications are being maintained throughout the territories in which they were filed. In addition, as part of our effort to expand the indications and patent coverage for KRX-101, we have filed three new patent applications for novel indications for KRX-101 and one new patent application addressing novel formulations and dosage levels of KRX-101 in the treatment of diabetic nephropathy. The key KRX-101 related patents and applications, if issued, expire at various times between 2012 and 2021. We believe that we will have sufficient time to commercially exploit the inventions covered by the patents during the effective lives of the inventions.

KinAce Platform

We have an exclusive worldwide license to the KinAce technology, which includes one issued patent in the United States and Australia and ten families of patent applications associated with our KinAce platform, which have been filed in various countries, including the United States, all the countries of the European Patent Convention, Japan, Canada, Australia and China. The issued patent and the applications identify and claim large classes of peptides that modulate the activity of protein kinases, which encompass our lead drug candidates. In addition, the applications describe a wide variety of therapeutic uses for these classes of peptides, including the treatment of various cancers, diabetes, septic shock, multiple sclerosis and inflammatory bowel disease. The applications also identify and claim specific portions of these protein kinases upon which the selection of peptide drug candidates is based. The technology of the recently issued U.S. patent provides a direct pathway from gene sequence data to potential drug candidates--an approach that we believe represents a new and extraordinarily efficient paradigm for drug discovery. We intend to continue to file patent applications to cover additional members of protein kinase families, specific drug candidates and additional therapeutic indications as they are developed. In addition, we have two patent applications pending in connection with our bioinformatics activities directed mainly to a screening algorithm based on our platform for identifying crucial regions in the kinase. The KinAce-related patent and patent applications, if such

issue, will expire at various times between 2017 and 2022. We believe that we will have sufficient time to commercially exploit the inventions covered by these applications during the effective lives of the inventions.

The SIB Technology

The SIB technology, to which we have an exclusive, worldwide license, is covered by a patent application, filed in the United States in 2001, which

protects both the chemical structure of the SIB, the combinatorial library produced, and its usage in the modulation of protein activity. This patent application, if issued, will expire in 2022. We believe that we will have sufficient time to commercially exploit the inventions covered by this application during the effective life of the invention.

Other Intellectual Property Rights

In April 2000, we applied to register the names "Keryx" and "KinAce" as trademarks with the Israeli and U.S. Patent and Trademark Office. In addition, we depend upon trade secrets, know-how and continuing technological advances to develop and maintain our competitive position. To maintain the confidentiality of trade secrets and proprietary information, we require our employees, scientific advisors, consultants and collaborators, upon commencement of a relationship with us, to execute confidentiality agreements and, in the case of parties other than our research and development collaborators, to agree to assign their inventions to us. These agreements are designed to protect our proprietary information and to grant us ownership of technologies that are developed in connection with their relationship with us. These agreements may not, however, provide protection for our trade secrets in the event of unauthorized disclosure of such information.

Agreements

KRX-101

License Agreement. Our license with Alfa Wassermann SpA grants us the exclusive rights to KRX-101 for diabetic nephropathy, diabetic retinopathy and diabetic neuropathy in the United States, Canada, Japan, Australia, New Zealand, South Africa and Israel, and entitles Alfa Wassermann to annual royalties of up to \$900,000 and fixed milestone payments of up to \$2,950,000. To date, we have paid \$400,000 in annual royalties and milestone payments. The license includes rights to at least 54 patents that have been registered in the above countries, rights in additional patent applications, and grants us exclusive, worldwide ownership of any novel indication for KRX-101 that we develop. Under the license, we must use our reasonable best efforts to commercialize and market KRX-101. Alfa Wassermann must pay us a royalty to the extent that it or its sub-licensees receive revenues from products that incorporate information or know-how developed by us. Alfa Wassermann must share a portion of the costs of data or intellectual property developed by us that it decides to utilize. Unless terminated for reason of breach or other customary termination provisions, the license terminates upon the later of the expiration of all underlying patent rights or ten years from the first commercial sale of KRX-101 by us. The most recent patent application was filed in June 2000, and, if granted, will expire in June 2020, subject to any extensions that may be granted.

Manufacturing Agreements. We have two manufacturing agreements for the production of KRX-101. Opocrin S.p.A., a manufacturer of bulk biological products, has agreed to manufacture and supply our raw requirements for sulodexide until 2009. Our agreement with Opocrin may be terminated by them or us on 180 days' notice for any reason. Pharmaceuticals International, Inc., a manufacturer of medicinal gelcaps, has agreed to produce the KRX-101 gelcaps necessary for the proposed clinical trials. Until

the agreed-upon manufacturing is completed, this agreement may be terminated only by us. Both Opocrin and Pharmaceuticals International maintain cGMP-certified manufacturing facilities that will be used for the manufacture of KRX-101.

KinAce Platform

License Agreement. Pursuant to a license with Children's Medical Center Corporation, referred to as CMCC, we have the exclusive worldwide right to commercialize the KinAce platform and practice the claims contained in the

patents and patent applications owned by CMCC. The license gives us the right to develop, produce, manufacture, market and sublicense products based on the patents and patent applications licensed to us by CMCC, any subsequently issued patents and future patent applications. Unless terminated for breach or other customary termination provisions, the license terminates upon the later of November 2014 or the expiration of the last patent covered by the license. The most recent patent application was filed in February 2002 and, if granted, will expire in February 2022, subject to the granting of any extensions.

Under the license, we must use our reasonable best efforts to commercialize and market one or more products based upon the KinAce technology. The license contains certain financing and development milestones. To date, we have met all of our milestones under this agreement. According to the remaining development milestones, we must file an IND application for a licensed product with the FDA (or a foreign equivalent) by June 2003, and we must file a New Drug Application, or NDA, with the FDA (or a foreign equivalent) within six years from our first filing of an IND application. Should CMCC reasonably determine that we failed to meet any of the development milestones that remain to be fulfilled because we did not devote diligent efforts and adequate resources, the license could be terminated, which would materially harm our business.

The SIB Technology

License Agreement. In January 2002, we obtained an exclusive worldwide license from the Yisum Research & Development Company of the Hebrew University of Jerusalem, referred to as Yisum, covering patent applications and know-how underlying the SIB technology for the conversion of peptides and other existing drugs into small molecules that have the potential for oral delivery. The license gives us the right to develop, produce, manufacture, market and sublicense products based on Yisum's know-how and current and future patent applications and any subsequently issued patents. Unless terminated for breach or other customary termination provisions, the license continues in effect until no product covered by the license is being sold by us.

Under the license, we must use commercially reasonable efforts to commercialize and market one or more products based upon the SIB technology. If we fail to devote such efforts to the development and commercialization of products based upon the SIB technology, the license could be terminated. Such termination may materially harm our business.

Sponsored Research Agreement. Professor Haim Gilon is the inventor of the SIB technology. We have entered into a consulting agreement with Professor Gilon. Under the consulting agreement, Professor Gilon must provide us consulting services to aid our development of the SIB technology. The consulting agreement may be terminated by us should Professor Gilon fail to meet any research milestone as set forth in the Sponsored Research Agreement we executed with Yisum. In connection with his consulting agreement, we granted Professor Gilon an option to purchase 20,000 shares of our common stock, based on our customary terms. This option vests in four equal parts on each of the first

four anniversaries of his consulting agreement. Under the Sponsored Research Agreement, we must pay quarterly fees to Yisum. To date, we have made the first quarterly payment to Yisum in connection with this agreement. The research agreement expires in January 2006, although it may be extended by mutual agreement for additional periods of 180 days. We may terminate the research agreement and cease making payments to Yisum should Professor Gilon fail to meet any milestones contained in that agreement or, should we choose, for any reason upon 90 days notice. If we choose to terminate upon 90 days notice, without also choosing to terminate the license agreement, we will be liable to make a one-time payment to Yisum equal to one-half of the remainder of the monies due pursuant to the Sponsored Research Agreement. In general, the milestones are project-specific and require Professor Gilon to meet enumerated product development timetables.

Sales and Marketing

We do not intend to build our own sales and marketing force. Instead, we intend to market any future products through corporate partnerships with leading biotechnology or pharmaceutical companies. By contracting with corporate partners for the manufacturing, marketing and distribution of products, we hope to limit our exposure to capital-intensive activities beyond our expertise and concentrate on developing new compounds and technologies.

Employees

We presently have 63 employees, 23 of whom hold M.D. or Ph.D. degrees and 23 of whom hold other advanced degrees. In addition, we have approximately 15 scientists who work under sponsored research or consulting agreements. Of our 63 full-time employees, 45 work in research and development and 18 work in administration and finance. None of our employees are represented by a collective bargaining agreement, we have never experienced a work stoppage. We consider our relations with our employees and consultants to be good.

Research and Development

Company-sponsored research and development expenses totaled \$6,923,000 in 1999, \$6,686,000 in 2000, and \$7,399,000 in 2001.

Government Regulation

Numerous governmental authorities in the United States, Israel and other countries regulate the manufacture and marketing of our drug candidates and our ongoing research and development activities. None of our drug candidates has been approved for sale in any market. Before marketing in the United States, any drug developed by us must undergo rigorous pre-clinical testing and clinical trials and an extensive regulatory approval process implemented by the FDA under the Federal Food, Drug and Cosmetic Act. The FDA regulates, among other things, the preclinical and clinical testing, safety, efficacy, approval, manufacturing, record keeping, adverse event reporting, packaging, labeling, storage, advertising, promotion, export, sale and distribution of biopharmaceutical products.

The regulatory review and approval process is lengthy, expensive and uncertain. We will have to submit extensive pre-clinical and clinical data and supporting information to the FDA for each indication or use to establish a drug candidate's safety and efficacy before we can secure FDA approval. The approval process takes many years, requires the expenditure of substantial resources and may involve ongoing requirements for post-marketing studies or surveillance. Before commencing clinical trials in humans, we must submit an IND to the FDA containing, among other things,

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preclinical data, chemistry, manufacturing and control information, and an investigative plan, and the FDA must allow the IND to become effective. We expect to rely on some of our collaborative partners to file INDs and generally direct the regulatory approval process for some of our drug candidates.

The FDA may permit expedited development, evaluation, and marketing of new therapies intended to treat persons with serious or life-threatening conditions for which there is an unmet medical need under its Fast Track Drug Development Program. A sponsor can apply for fast track designation at the time of submission of an IND, or at any time prior to receiving marketing approval of the New Drug Application, or NDA. To receive fast track designation, an applicant must demonstrate:

- o that the drug is intended to treat a serious or life-threatening condition;

- o that the drug is intended to treat a serious aspect of the condition; and
- o that the drug has the potential to address unmet medical needs, and this potential is being evaluated in the planned drug development program.

The FDA must respond to a request for fast track designation within 60 calendar days of receipt of the request. Over the course of drug development, a product in a fast track development program must continue to meet the criteria for fast track designation. Sponsors of products in fast track drug development programs must be in regular contact with the reviewing division of the FDA to ensure that the evidence necessary to support marketing approval will be developed and presented in a format conducive to an efficient review.

Sponsors of products in fast track drug development programs ordinarily are eligible for priority review and also may be permitted to submit portions of an NDA to the FDA for review before the complete application is submitted. Sponsors of drugs designated as fast track also may seek approval under the FDA's accelerated approval regulations, which permits the FDA to grant accelerated approval based on a determination by the FDA that the effect on a surrogate endpoint is reasonably likely to predict clinical benefit. A surrogate endpoint is defined as a laboratory or physical sign that is used in therapeutic trials as a substitute for a clinically meaningful endpoint and that is expected to predict the effect of the therapy. However, requirements for submitting "substantial evidence" to demonstrate efficacy and for payment of user fees must still be met under. Further, fast track and/or accelerated approvals will ordinarily be conditioned on postmarket studies to verify the drug's clinical benefit and the relationship of the surrogate endpoint to clinical benefit. Approval of a fast track drug may be withdrawn in an expedited manner if, among other reasons, a post approval study fails to verify clinical benefit.

Clinical testing must meet requirements for institutional review board oversight, informed consent and good clinical practices, and must be conducted pursuant to an IND, unless exempted.

Clinical trials are conducted in sequential phases. In Phase I, the drug is administered to a small group of humans, either healthy volunteers or patients, to test for safety, dosage tolerance, absorption, metabolism, excretion, and clinical pharmacology. In Phase II, a somewhat larger number of patients are studied to assess the efficacy of the product, to ascertain dose tolerance and the optimal dose range, and to gather additional data relating to safety and potential adverse events. In Phase III, studies establish safety and efficacy in an expanded patient population. The FDA may require Phase IV post-marketing studies to gather additional evidence of safety and efficacy.

The length of time necessary to complete clinical trials varies significantly and may be difficult to predict. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Additional factors that can cause delay or termination of our clinical trials, or that may increase the costs of these trials, include:

- o slow patient enrollment due to the nature of the clinical trial plan, the proximity of patients to clinical sites, the eligibility criteria for participation in the study or other factors;
- o inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials or delays in approvals from a study site's review board;
- o longer treatment time required to demonstrate efficacy or determine the appropriate product dose;

- o insufficient supplies of the drug candidate;
- o adverse medical events or side effects in treated patients; and
- o ineffectiveness of the drug candidate.

In addition, the FDA may place a clinical trial on hold or terminate it if it concludes that subjects are being exposed to an unacceptable health risk. Any drug is likely to produce some toxicity or undesirable side effects in animals and in humans when administered at sufficiently high doses and/or for a sufficiently long time. Unacceptable toxicity or side effects may occur at any dose level at any time in the course of studies in animals designed to identify unacceptable effects of a drug candidate, known as toxicological studies, or clinical trials of drug candidates. The appearance of any unacceptable toxicity or side effect could cause us or regulatory authorities to interrupt, limit, delay or abort the development of any of our drug candidates and could ultimately prevent approval by the FDA or foreign regulatory authorities for any or all targeted indications.

Before receiving FDA approval to market a product, we must demonstrate that the product is safe and effective for its intended use by submitting to the FDA an NDA containing the preclinical and clinical data that have been accumulated, together with chemistry and manufacturing and controls specifications and information, and proposed labeling, among other things. The FDA may refuse to accept a NDA for filing if certain content criteria are not met and, even after accepting a NDA, the FDA may often require additional information, including clinical data, before approval.

As part of the approval process, the FDA must inspect and approve each manufacturing facility. Among the conditions of approval is the requirement that a manufacturer's quality control and manufacturing procedures conform to current Good Manufacturing Practices, or cGMP. Manufacturers must expend time, money and effort to ensure compliance with cGMP, and the FDA conducts periodic inspections to certify compliance. It may be difficult for our manufacturers or us to comply with the applicable cGMP and other FDA regulatory requirements. If we or our contract manufacturers fail to comply, then the FDA will not allow us to market products that have been affected by our failure.

If the FDA grants approval, the approval will be limited to those disease states, conditions and patient populations for which the product is safe and effective, as demonstrated through clinical studies. Further, a product may be marketed only in those dosage forms and for those indications approved in the NDA. Certain changes to an approved NDA, including, with certain exceptions, any changes to

labeling, require approved supplemental applications before the drug may be marketed as changed. We will have a continuing obligation to comply with all conditions of approval and other regulatory requirements such as cGMP and adverse event reporting requirements. The nature of marketing claims that the FDA will permit us to make in the labeling and advertising of our products will be limited to those specified in an FDA approval, and the advertising of our products will be subject to comprehensive regulation by the FDA. Claims exceeding those that are approved will constitute a violation of the Federal Food, Drug, and Cosmetics Act. Violations of the Federal Food, Drug, and Cosmetics Act or regulatory requirements at any time during the product development process, approval process, or after approval may result in agency enforcement actions, including withdrawal of approval, recall, seizure of products, injunctions, fines and/or civil or criminal penalties. Any agency enforcement action could have a material adverse effect on us.

Should we wish to market our products outside the United States, we must receive marketing authorization from the appropriate regulatory authorities. The

requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Union, or EU, registration procedures are available to companies wishing to market a product in more than one EU member state. If the regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization will be granted. This foreign regulatory approval process involves all of the risks associated with FDA approval discussed above.

Failure to comply with applicable federal, state and foreign laws and regulations would likely have a material adverse effect on our business. In addition, federal, state and foreign laws and regulations regarding the manufacture and sale of new drugs are subject to future changes. We cannot predict what effect, if any, such changes might have on our business, but such changes could have a material adverse effect.

FORWARD-LOOKING STATEMENTS

Some of the statements in this Form 10-K and the Exhibits attached hereto contain forward-looking statements within Section 21E of the Securities Exchange Act of 1934, as amended. When used in this Form 10-K and the Exhibits, the words "anticipate," "believe," "estimate," "may," "expect" and similar expressions are generally intended to identify forward-looking statements. These forward-looking statements include statements about our:

- o expectations for increases in operating expenses;
- o expectations for increases in research and development and general and administrative expenses in order to develop new products and manufacture commercial quantities of products;
- o expectations for the development, manufacturing, and approval of new products;
- o expectations for incurring additional capital expenditures to expand our research and development capabilities;
- o expectations for generating revenue or becoming profitable on a sustained basis;
- o ability to enter into additional marketing agreements and the ability of our existing marketing partners to commercialize products incorporating our technologies;
- o estimate of the sufficiency of our existing cash and cash equivalents and investments to finance our operating and capital requirements;

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- o expected losses; and
- o expectations for future capital requirements.

Our actual results could differ materially from those results expressed in, or implied by, these forward-looking statements. Potential risks and uncertainties that could affect our actual results include those discussed below under the heading "Risk Factors." The list of factors that may affect future performance and the accuracy of forward-looking statements is illustrative, but by no means exhaustive. Accordingly, all forward looking-statements should be evaluated with the understanding of their inherent uncertainty.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, events, levels of

activity, performance or achievements. We do not assume responsibility for the accuracy and completeness of the forward-looking statements.

We do not intend to update any of the forward-looking statements after the date of this Form 10-K to conform them to actual results.

RISK FACTORS

You should carefully consider the following risks and uncertainties. If any of the following occurs, our business, financial condition or operating results could be materially harmed. This could cause the trading price of our common stock to decline and you may lose all or part of your investment.

RISKS RELATED TO OUR BUSINESS

WE HAVE A LIMITED OPERATING HISTORY AND HAVE INCURRED OPERATING LOSSES SINCE OUR INCEPTION. WE EXPECT TO INCUR LOSSES IN THE FUTURE AND WE MAY NEVER BECOME PROFITABLE.

We have a limited operating history. You should consider our prospects in light of the risks and difficulties frequently encountered by early stage companies. In addition, we have incurred operating losses since our inception and expect to continue to incur operating losses for the foreseeable future. As of December 31, 2001, we had an accumulated deficit of approximately \$33.7 million. We expect to expand our research and development efforts significantly, which will result in increasing losses. We may continue to incur substantial operating losses even if we begin to generate revenues from our drug candidates or technologies.

We have not yet commercialized any products or technologies and cannot be sure we will ever be able to do so. Even if we commercialize one or more of our drug candidates or technologies we may not become profitable. Our ability to achieve profitability depends on a number of factors, including our ability to complete our development efforts, obtain regulatory approval for our drug candidates and to successfully commercialize our drug candidates and technologies.

OUR DRUG DISCOVERY METHODS ARE UNPROVEN AND MAY NOT LEAD TO COMMERCIALLY VIABLE DRUGS.

There is limited scientific understanding of protein kinase regulation and its role in complex diseases. Our drug discovery efforts are focused on a number of protein kinases whose functions have not yet been fully identified. As a result, the safety and effectiveness of our KinAce drug candidates have not

yet been established and our research and development activities may not result in any commercially viable products. In addition, because the compounds we develop with our KinAce platform are made up of small peptides, we may be unable to produce drugs that can be taken orally. If we are unable to formulate an effective way to deliver our KinAce compounds we may be unable to market these drug candidates.

OUR DRUG CANDIDATES ARE IN EARLY STAGES OF DEVELOPMENT AND MAY NEVER RECEIVE NECESSARY REGULATORY APPROVALS.

Our drug candidates are in early stages of development. We have not received, and may never receive, regulatory approval for clinical trials for any of our drug candidates, other than KRX-101, which is currently in a Phase II trial in South Africa for the treatment of HIV-associated Nephropathy. We will need to conduct significant additional research and human testing before we can apply for product approval with the FDA or with regulatory authorities of other countries. Pre-clinical testing and clinical development are long, expensive and uncertain processes. Satisfaction of regulatory requirements typically depends

on the nature, complexity and novelty of the product and requires the expenditure of substantial resources. Data obtained from pre-clinical and clinical tests can be interpreted in different ways, which could delay, limit or prevent regulatory approval. It may take us many years to complete the testing of our drug candidates and failure can occur at any stage of this process. Negative or inconclusive results or medical events during a clinical trial could cause us to delay or terminate our development efforts.

Clinical trials also have a high risk of failure. A number of companies in the pharmaceutical industry, including biotechnology companies, have suffered significant setbacks in advanced clinical trials, even after achieving promising results in earlier trials. If we experience delays in the testing or approval process or if we need to perform more or larger clinical trials than originally planned, our financial results and the commercial prospects for our drug candidates may be materially impaired. For example, as a result of encountering delays in the development of an effective formulation of our KRX-123 drug candidate, our ability to file an IND application to conduct clinical trials for KRX-123 has been delayed. In addition, we have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approval in the United States and abroad and, accordingly, may encounter unforeseen problems and delays in the approval process.

IF WE ARE UNABLE TO SUCCESFFULLY BEGIN OR COMPLETE OUR CLINICAL TRIALS OF KRX-101, OUR ABILITY TO ACHIEVE OUR CURRENT BUSINESS STRATEGY WILL BE ADVERSELY AFFECTED.

The ultimate clinical timeline and consequent cost for the development of KRX-101 will depend, in part, on the FDA's acceptance of the protocols we have filed or, alternatively, on any requests the FDA might have to alter such protocols. We cannot be certain whether the FDA will accept the protocols we have presented. If we do not receive approval to conduct clinical trials for KRX-101 from the FDA, or if approval is delayed, we will be unable to carry out our present business strategy. Even if the FDA accepts our protocols, it may require us to expand the size or scope of the clinical trials, which could increase the cost and time required to complete the clinical trials. Accordingly, we may not be able to complete the clinical trials within an acceptable time frame, if at all.

Whether or not and how quickly we complete clinical trials is dependent in part upon the rate of enrollment of patients. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the study and the existence of competitive clinical trials. If we experience delays in patient enrollment, in either the

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South African HIVAN trial or the Phase III trials presented to the FDA, we may incur additional costs and delay our development program for KRX-101.

BECAUSE WE LICENSE OUR PRIMARY PROPRIETARY TECHNOLOGIES, TERMINATION OF THESE AGREEMENTS WOULD PREVENT US FROM DEVELOPING OUR LEAD DRUG CANDIDATES.

We do not own the KRX-101,our KinAce platform, or the SIB technology. We have licensed these technologies from others. These license agreements require us to meet development or financing milestones and impose development and commercialization due diligence on us. In addition, under these agreements we must pay royalties on sales of products resulting from licensed technologies and pay the patent filing, prosecution and maintenance costs related to the licenses. If we do not meet our obligations in a timely manner or otherwise breach the terms of our agreements, our licensors could terminate the agreements and we would lose the rights to , KRX-101 and the KinAce and SIB technologies.

IF WE ARE UNABLE TO ADEQUATELY PROTECT OUR INTELLECTUAL PROPERTY THIRD PARTIES MAY BE ABLE TO USE OUR TECHNOLOGY, WHICH COULD ADVERSELY AFFECT OUR ABILITY TO

COMPETE IN THE MARKET.

Our commercial success will depend in part on our ability and the ability of our licensors to obtain and maintain patent protection on our drug products and technologies and successfully defend these patents and technologies against third-party challenges. The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date. Accordingly, the patents we use may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products. Furthermore, others may independently develop similar or alternative technologies or design around our patented technologies. The patents we use may be challenged, invalidated or fail to provide us with any competitive advantage.

We rely on trade secrets to protect technology where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. While we require our employees, collaborators and consultants to enter into confidentiality agreements, this may not be sufficient to adequately protect our trade secrets or other proprietary information. In addition, we share ownership and publication rights to data relating to some of our drug candidates with our research collaborators and scientific advisors. If we cannot maintain the confidentiality of this information, our ability to receive patent protection or protect our proprietary information will be at risk.

LITIGATION OR THIRD-PARTY CLAIMS OF INTELLECTUAL PROPERTY INFRINGEMENT COULD REQUIRE US TO SPEND SUBSTANTIAL TIME AND MONEY DEFENDING SUCH CLAIMS AND ADVERSELY AFFECT OUR ABILITY TO DEVELOP AND COMMERCIALIZE OUR PRODUCTS.

Third parties may assert that we are using their proprietary technology without authorization. In addition, third parties may have or obtain patents in the future and claim that our technologies infringe their patents. If we are required to defend against patent suits brought by third parties, or if we sue to protect our patent rights, we may be required to pay substantial litigation costs, and our management's attention may be diverted from operating our business. In addition, any legal action against our licensors or us that seeks damages or an injunction of our commercial activities relating to the affected

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technologies could subject us to monetary liability and require our licensors or us to obtain a license to continue to use the affected technologies. We cannot predict whether our licensors or we would prevail in any of these types of actions or that any required license would be made available on commercially acceptable terms, if at all.

IF WE LOSE OUR KEY PERSONNEL OR ARE UNABLE TO ATTRACT AND RETAIN ADDITIONAL PERSONNEL, OUR OPERATIONS WOULD BE DISRUPTED AND OUR BUSINESS WOULD BE HARMED.

We have 63 employees and approximately 15 persons working under sponsored research agreements or consulting agreements. To successfully develop our drug candidates, we must be able to attract and retain highly skilled scientists and clinical development personnel. In addition, if we lose the services of our current personnel, in particular, Dr. Morris Laster, our Chairman, or Dr. Benjamin Corn, our Chief Executive Officer and President, our ability to continue to develop our lead drug candidates will be materially impaired. We maintain a \$2.0 million keyman life insurance policy covering Dr. Laster. This amount may not be sufficient to compensate us for the loss of his services. In addition, while we have employment agreements with our key executives, these agreements would not prevent any of them from terminating their employment with us.

IF WE DO NOT ESTABLISH OR MAINTAIN DRUG DEVELOPMENT, MANUFACTURING AND MARKETING ARRANGEMENTS WITH THIRD PARTIES, WE MAY BE UNABLE TO COMMERCIALIZE OUR

TECHNOLOGIES INTO PRODUCTS.

A key part of our strategy is to establish drug development collaboration arrangements with third parties and enter into manufacturing and marketing arrangements with third parties. For example, we have entered into a sponsored research agreement pursuant to which Yissum is conducting some of the research and development with respect to the SIB Technology. We are a young company and do not possess all of these capabilities on our own. We must successfully contract with third parties to:

- o assist us in developing, testing, obtaining regulatory approval for and commercializing some of our compounds and technologies;
- o manufacture our drug candidates; and
- o market and distribute our drug candidates.

If we are unable to successfully contract with third parties for these services, or if existing arrangements for these services are terminated, whether or not through our actions, or if such third parties do not perform the contracted-for tasks as required, we may have to delay, scale back or end one or more of our drug development programs or seek to develop or commercialize our technologies independently, which will be costly and result in delays. Moreover, these agreements may provide our collaborators with significant discretion in determining the efforts and resources that they will apply to the development and commercialization of products based on our technologies. Accordingly, to the extent that we rely on third parties to research, develop or commercialize products based on our technologies, we are unable to control whether such products will be scientifically or commercially successful.

IF OUR COMPETITORS DEVELOP AND MARKET PRODUCTS THAT ARE MORE EFFECTIVE THAN OURS, OUR COMMERCIAL OPPORTUNITY MAY BE REDUCED OR ELIMINATED.

Our commercial opportunity will be reduced or eliminated if our competitors develop and market products that are more effective, have fewer side effects or are less expensive than our drug candidates. Other companies have products or drug candidates in various stages of pre-clinical or clinical development to treat diseases for which we are seeking to discover and develop drug candidates. Some of these potential competing drugs are further advanced in development than our drug candidates and may be commercialized earlier. Even if we are successful in developing effective drugs, our products may not compete successfully with products produced by our competitors.

Our competitors include pharmaceutical companies and biotechnology companies, as well as universities and public and private research institutions. In addition, companies active in different but related fields represent substantial competition for us. Many of our competitors have significantly greater capital resources, larger research and development staffs and facilities and greater experience in drug development, regulation, manufacturing and marketing than we do. These organizations also compete with us to recruit qualified personnel, attract partners for joint ventures or other collaborations, and license technologies that are competitive with ours. As a result, our competitors may be able to more easily develop technologies and products that would render our technologies or our drug candidates obsolete or noncompetitive.

BECAUSE OUR PRINCIPAL OPERATIONS ARE LOCATED IN ISRAEL, ANY SIGNIFICANT POLITICAL, ECONOMIC OR MILITARY INSTABILITY IN THE REGION COULD MATERIALLY DISRUPT OUR BUSINESS.

Although we are incorporated in the State of Delaware, we maintain our research and development activities in the State of Israel. Currently, most of our personnel are located in Israel. Our business may be disrupted by political,

economic or military conditions affecting Israel and other risks that are inherent in international business. These include:

- o political and economic instability;
- o the impact of terrorism and military operations;
- o the difficulty of administering business abroad;
- o the need to comply with export laws, tariff and tax regulations and regulatory requirements;
- o currency fluctuations; and
- o the obligation of male residents of Israel, including some of our employees, to perform annual military reserve duty and possibly to be called to active duty under emergency circumstances.

IF WE ARE UNABLE TO OBTAIN ADDITIONAL FUNDS ON TERMS FAVORABLE TO US, OR AT ALL, OUR BUSINESS WOULD BE HARMED.

Based on our current plans, we believe our existing cash and cash equivalents will be sufficient to fund our operating expenses and capital requirements until at least mid-2003. However, the actual amount of funds that we will need prior to or after that date will be determined by many factors, some of which are beyond our control. As a result, we may need funds sooner than we currently anticipate. These factors include:

- o the progress of our research activities;

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- o the number and scope of our research programs;
- o the progress of our pre-clinical and clinical development activities;
- o the progress of the development efforts of parties with whom we have entered into research and development agreements;
- o our ability to establish and maintain current and new research and development and licensing arrangements;
- o our ability to achieve our milestones under licensing arrangements;
- o the costs involved in enforcing patent claims and other intellectual property rights; and
- o the costs and timing of regulatory approvals.

If our capital resources are insufficient to meet future capital requirements, we will have to raise additional funds. If we are unable to obtain additional funds on terms favorable to us, we may be required to cease or reduce our operating activities or sell or license to third parties some or all of our technology. If we raise additional funds by selling additional shares of our capital stock, the ownership interests of our stockholders will be diluted. If we raise additional funds through the sale or license of our technology, we may be unable to do so on terms favorable to us.

CONCENTRATION OF OWNERSHIP OF OUR COMMON STOCK AMONG OUR EXISTING EXECUTIVE OFFICERS, DIRECTORS AND PRINCIPAL STOCKHOLDERS MAY PREVENT NEW INVESTORS FROM INFLUENCING SIGNIFICANT CORPORATE DECISIONS.

As of December 31, 2001, our executive officers, directors and principal stockholders (including their affiliates) beneficially own, in the aggregate, approximately 45% of our outstanding common stock, including, for this purpose,

currently exercisable options and warrants held by our executive officers and directors. As a result, these persons, acting together, will have the ability to effectively determine the outcome of all matters submitted to our stockholders for approval, including the election and removal of directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, such persons, acting together, will have the ability to effectively control our management and affairs. Accordingly, this concentration of ownership may harm the market price of our common stock by discouraging a potential acquiror from attempting to acquire our company.

OUR STOCK PRICE COULD BE VOLATILE AND YOUR INVESTMENT COULD DECLINE IN VALUE.

The trading price of our common stock is likely to be highly volatile and subject to wide fluctuations in price in response to various factors, many of which are beyond our control, including:

- o developments concerning our drug candidates;
- o announcements of technological innovations by us or our competitors;
- o new products introduced or announced by us or our competitors;

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- o changes in financial estimates by securities analysts;
- o actual or anticipated variations in quarterly operating results;
- o expiration or termination of licenses, research contracts or other collaboration agreements;
- o conditions or trends in the regulatory climate and the biotechnology, pharmaceutical and genomics industries;
- o changes in the market valuations of similar companies; and
- o additions or departures of key personnel.

In addition, equity markets in general, and the market for biotechnology and life sciences companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of companies traded in those markets. These broad market and industry factors may materially affect the market price of our common stock, regardless of our development and operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been instituted against that company. Such litigation, if instituted against us, could cause us to incur substantial costs to defend such claims and divert management's attention and resources, which could seriously harm our business.

ANTI-TAKEOVER PROVISIONS IN OUR CHARTER DOCUMENTS AND DELAWARE LAW COULD MAKE A THIRD-PARTY ACQUISITION OF US DIFFICULT. THIS COULD LIMIT THE PRICE INVESTORS MIGHT BE WILLING TO PAY IN THE FUTURE FOR OUR COMMON STOCK.

Provisions in our certificate of incorporation and bylaws could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, or control us. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock. Our certificate of incorporation allows us to issue preferred stock with rights senior to those of the common stock without any further vote or action by the stockholders and our bylaws eliminate the right of stockholders to call a special meeting of stockholders, which could make it more difficult for stockholders to effect certain corporate

actions. These provisions could also have the effect of delaying or preventing a change in control. The issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of our common stock or could adversely affect the rights and powers, including voting rights, of such holders. In certain circumstances, such issuance could have the effect of decreasing the market price of our common stock.

ITEM 2. PROPERTIES.

We currently lease space in Jerusalem, Israel and Cambridge, Massachusetts. Our facilities in Israel consist of 19,000 square feet of leased space in Jerusalem's primary high technology park, Kiryat Mada, Har Hotzvim, Jerusalem, Israel 91236. This facility provides space for our administrative and financial functions and houses a 14,400 square foot on-site laboratory devoted to bioinformatics, drug

discovery and drug compound formulation. Although we anticipate that our current Jerusalem facility will be sufficient for our needs for the next several years, we anticipate that additional space will be available for future expansion as necessary.

Our facilities in the United States consist of 2,915 square feet of leased space at 101 Main Street, Cambridge, Massachusetts 02142. This facility houses our executive offices and personnel who are responsible for coordinating our financial, business development and clinical development functions. Although we anticipate that our current United States facility will be sufficient for our needs in the next several years, we expect additional space will be available for future expansion as necessary.

ITEM 3. LEGAL PROCEEDINGS.

We are not a party to any material legal or arbitration proceedings nor are we aware of any that are pending or threatened.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

We did not submit any matters to a vote of our security holders, through the solicitation of proxies or otherwise, during the fourth quarter of 2001.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

Our common stock is listed on the Nasdaq National Market under the symbol KERX. We commenced trading on the Nasdaq National Market on July 28, 2000. The following table sets forth the high and low closing sale prices of our common stock for the periods indicated.

	COMMON STOCK PRICE	
	HIGH	LOW
YEAR ENDED DECEMBER 31, 2001		
Fourth Quarter	\$ 8.1000	\$4.8600
Third Quarter	\$ 9.8500	\$5.8000
Second Quarter	\$10.5900	\$7.0000
First Quarter	\$10.6875	\$6.3750

COMMON STOCK PRICE

	HIGH	LOW
YEAR ENDED DECEMBER 31, 2000		
Fourth Quarter	\$16.5625	\$ 9.2500
Third Quarter	\$13.9379	\$10.1875
Second Quarter	--	--
First Quarter	--	--

As of December 31, 2001, there were 89 record holders of our common stock. We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings to fund the development and growth of our business. Therefore, we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors.

Use of Proceeds

On August 2, 2000, we completed an initial public offering of 4,600,000 shares of common stock at \$10.00 per share. The managing underwriters in the offering were WestLB Panmure Ltd. (in the United Kingdom) and Roth Capital Partners, Inc. (in the United States). The shares of common stock sold in the offering were registered under the Securities Act of 1933 on a Registration Statement on Form S-1 (Registration No. 333-37402) that was declared effective by the Securities and Exchange Commission on July 28, 2000. The proceeds to us from the offering, including the over-allotment option of 600,000 shares, after deducting underwriting discounts and commissions of approximately \$3.6 million and other offering expenses of approximately \$2.1 million, were approximately \$46.3 million. Of the net offering proceeds, through December 31, 2001, we have used the proceeds of our initial public offering as follows:

- o approximately \$3.1 million has been spent on the clinical development of KRX-101,
- o approximately \$1.3 million has been spent on the clinical development of KRX-123,

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- o approximately \$6.4 million has been spent on the expansion of our KinAce platform and the further development of additional compounds,
- o and approximately \$8.5 million has been spent as working capital and for general corporate purposes.

The timing and amounts of our further actual expenditures will depend on several factors, many of which are outside our control, including the timing of our entry into collaboration agreements, the progress of our clinical trials, the progress of our research and development programs, the results of other pre-clinical and clinical studies and the timing and costs of regulatory approvals.

Until we use the net proceeds, we intend to invest the funds in short-term, investment-grade, interest-bearing instruments.

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The following Statement of Operations Data for the years ended December 31, 2001, 2000, 1999, 1998 and 1997 and the Balance Sheet Data as of December 31, 2001, 2000, 1999, 1998 and 1997, are derived from our consolidated financial statements that have been audited by KPMG Somekh Chaikin, a member of KPMG International, independent public accountants. The financial data set forth below should be read in conjunction with the Management's Discussion and Analysis of Financial Condition and Results of Operations, and the financial statements and notes included elsewhere in this Form 10-K.

Years Ended December 31, ----- (in thousands, except per share data)	2001 ----	2000 ----	1999 ----	1998 ----	1997 ----
Statements of Operations Data:					
Management fees from related party	\$ --	\$ --	\$ --	\$ 66	\$ 233
Expenses					
Research and development:					
Non-cash compensation	(17)	3,186	5,426	--	--
Other research and development	7,416	3,500	1,497	1,407	569
	-----	-----	-----	-----	-----
Total Research and development expenses	7,399	6,686	6,923	1,407	569
General and administrative:					
Non-cash compensation	139	2,668	588	--	--
Other general and administrative	4,302	3,232	1,225	1,011	525
	-----	-----	-----	-----	-----
Total general and administrative expenses	4,441	5,900	1,813	1,011	525
	-----	-----	-----	-----	-----
Total operating expenses	11,840	12,586	8,736	2,418	1,094
	-----	-----	-----	-----	-----
Operating loss	(11,840)	(12,586)	(8,736)	(2,352)	(861)
Interest income (expenses), net	2,231	1,317	(257)	(157)	(11)
	-----	-----	-----	-----	-----
Net loss before income tax	\$ (9,609)	\$ (11,269)	\$ (8,993)	\$ (2,509)	\$ (872)
Net loss	\$ (9,806)	\$ (11,489)	\$ (9,003)	\$ (2,539)	\$ (882)
	=====	=====	=====	=====	=====
Basic & diluted loss per common share	\$ (0.50)	\$ (0.89)	\$ (1.11)	\$ (0.31)	\$ (10.11)
	=====	=====	=====	=====	=====

As of December 31, ----- (in thousands)	2001 ----	2000 ----	1999 ----	1998 ----	1997 ----
-----------------------------------------------	--------------	--------------	--------------	--------------	--------------

Balance Sheet Data:

Cash and cash equivalents, interest receivable and investment securities	\$ 37,856	\$ 48,900	\$ 4,127	\$ 128	\$ 647
Working capital	35,235	37,908	3,984	(157)	35
Total assets	43,067	50,264	4,948	620	832
Long-term obligations	766	304	118	527	1,028
Total stockholders' equity (deficit)	39,215	48,867	4,436	(241)	(882)

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion should be read in conjunction with our financial statements and related notes included in this Form 10-K.

Overview

We were incorporated as a Delaware corporation in October 1998. We commenced operations in November 1999, following our acquisition of substantially all of the assets and certain of the liabilities of Partec Ltd., our predecessor company that began its operations in January 1997. Since commencing operations, our activities have been primarily devoted to developing our technologies, raising capital, purchasing assets for our corporate offices and laboratory facilities and recruiting personnel. We are a development stage company and have no product sales to date. Our major sources of working capital have been proceeds from various private placements of equity securities and from our initial public offering of 5,200,000 shares of common stock at \$10 per share. We have two wholly owned subsidiaries located in Israel, Keryx (Israel) Ltd., an Israeli registered company, which engages in administrative functions, and Keryx Biomedical Technologies Ltd., an Israeli registered company, which engages in research and development activities.

Research and development expenses consist primarily of salaries and related personnel costs, fees paid to consultants, sponsored research associates and outside service providers for laboratory development, manufacturing expenses related to the production of clinical trial inventory materials and other expenses relating to the design, development, testing, and enhancement of our product candidates. We expense our research and development costs as they are incurred.

General and administrative expenses consist primarily of salaries and related expenses for executive, finance and other administrative personnel, professional fees and other corporate expenses, including business development, general legal activities, and various costs relating to our operations as a public company.

Our results of operations include non-cash compensation expense as a result of grants of stock and stock options. Compensation expense for options granted to employees represents the difference between the intrinsic value of our common stock and the exercise price of the options at the date of grant. We account for stock-based employee and director compensation arrangements in accordance with the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," referred to as APB No. 25, and Financial Accounting Standards Board, or FASB, issued Interpretation No. 44, "Accounting for Certain Transactions Involving Stock Compensation" and comply with the disclosure provisions of Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation." Compensation for options granted to consultants has been determined in accordance with SFAS No. 123, as the fair value of the equity instruments issued, and according to the guidelines set forth in EITF 96-18, "Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services" and EITF 00-18 "Accounting Recognition for Certain Transactions involving Equity Instruments Granted to Other Than Employees," referred to as SFAS No. 123. APB Opinion No. 25 has been applied in accounting for fixed and milestone-based stock options to employees and directors as allowed by SFAS No. 123. The compensation cost is recorded over the respective vesting periods of the individual stock options. The expense is included in the respective categories of expense in the statement of operations. We expect to record additional non-cash compensation expense in the

future, which may be significant. However, because some of the options issued to consultants either do not vest immediately or vest upon the achievement of certain milestones, the total expense is uncertain.

Critical Accounting Policies

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our financial statements and the reported amounts of revenues and expenses during the applicable period. Actual results may differ from these estimates under different assumptions or conditions.

Critical accounting policies are defined as those that are reflective of significant judgments and uncertainties, and may potentially result in materially different results under different assumptions and conditions. In applying these critical accounting policies, our management uses its judgment to determine the appropriate assumptions to be used in making certain estimates. These estimates are subject to an inherent degree of uncertainty. For a detailed discussion of the application of these and other accounting policies, please see Note 1 in the Notes to our Consolidated Financial statements. Our critical accounting policies include the following:

Foreign currency translation. In preparing our consolidated financial statements, we translate non-US dollar amounts in the financial statements of our Israeli subsidiaries into US dollars. Under the relevant accounting guidance the treatment of any gains or losses resulting from this translation is dependent upon management's determination of the functional currency. The functional currency is determined based on management's judgment and involves consideration of all relevant economic facts and circumstances affecting the subsidiaries. Generally, the currency in which a subsidiary transacts a majority of its transactions, including billings, financing, payroll and other expenditures would be considered the functional currency. However, any dependency upon the parent and the nature of the subsidiary's operations must also be considered. If any subsidiary's functional currency is deemed to be the local currency, then any gain or loss associated with the translation of that subsidiary's financial statements would be included as a separate part of our stockholders' equity under the caption "cumulative translation adjustment." However, if the functional currency of the subsidiary is deemed to be the US dollar then any gain or loss associated with the translation of these financial statements would be included within our statement of operations. Based on our assessment of the factors discussed above, we consider the US dollar to be the functional currency for each of our Israeli subsidiaries. Therefore all gains and losses from translations are recorded in our statement of operations.

Accounting for income taxes. As part of the process of preparing our consolidated financial statements we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves management estimating our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items, for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or increase this allowance in a period, we must include an expense within the tax provision in the statement of operations. Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net

deferred tax assets. We have fully offset our US deferred tax asset with a valuation allowance. Our lack of earnings history and the uncertainty surrounding our ability to generate taxable income prior to the expiration of such deferred tax assets were the primary factors considered by management in establishing the valuation allowance. The deferred tax asset in our financial statements relates to our wholly owned Israeli subsidiaries.

Stock Compensation. We have issued options and warrants to employees, directors and consultants. In applying SFAS No. 123, we use the Black-Scholes pricing model to calculate the fair market value of our options and warrants. The Black-Scholes model takes into account volatility in the price of our stock, the risk-free interest rate, the estimated life of the option or warrant, the closing market price of our stock and the exercise price. For purposes of the calculation, it was assumed that no dividends will be paid during the life of the options and warrants.

In accordance with EITF 96-18, "Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services," total compensation expense for options issued to consultants is determined at the "measurement date." The expense is recognized over the vesting period for the options. Until the measurement date is reached, the total amount of compensation expense remains uncertain. We record option compensation based on the fair value of the options at the reporting date. These options are then revalued, or the total compensation is recalculated based on the then current fair value, at each subsequent reporting date. This results in a change to the amount previously recorded in respect of the option grant and additional expense or a negative expense may be recorded in subsequent periods based on changes in the assumptions used to calculate fair value, such as changes in market price, until the measurement date is reached and the compensation expense is determined.

Results of Operations

Years Ended December 31, 2001 and 2000

Revenue. We did not have any revenue for the years ended December 31, 2001 and December 31, 2000.

Research and Development Expenses. Research and development expenses increased by \$713,000 to \$7,399,000 for the year ended December 31, 2001, as compared to expenses of \$6,686,000 for the year ended December 31, 2000. Net of non-cash compensation, research and development expenses increased by \$3,916,000 to \$7,416,000 due primarily to growth in personnel, manufacturing expenses associated with KRX-101 clinical trial inventory and increased pre-clinical work to advance our KinAce platform. We expect our research and development costs to continue to increase significantly over the next several years as we expand our research and product development efforts and implement our business strategy. Non-cash compensation expense related to stock option grants was negative \$17,000 for the year ended December 31, 2001 as compared to \$3,186,000 for the year ended December 31, 2000. This negative non-cash compensation expense was primarily due to the revaluation of previously issued options to consultants.

General and Administrative Expenses. General and administrative expenses decreased by \$1,459,000 to \$4,441,000 for the year ended December 31, 2001, as compared to expenses of \$5,900,000 for the year ended December 31, 2000. Net of non-cash compensation, general and administrative expenses increased by \$1,070,000 to \$4,302,000 due primarily to increased personnel and management expenses, and increased investments in business development and facilities required to support our growth. We expect our general and administrative expenses to continue to increase over the next several years as we implement our business strategy and commercialize our products. Non-cash

compensation expense related to stock option grants was \$139,000 for the year

ended December 31, 2001 as compared to \$2,668,000 for the year ended December 31, 2000.

Interest Income (Expense), Net. Interest income, net, increased by \$914,000 to \$2,231,000 for the year ended December 31, 2001, as compared to income of \$1,317,000 for the year ended December 31, 2000. The increase resulted from a higher level of invested funds due primarily to proceeds from our initial public offering that closed in August 2000, that were invested for a full year in 2001.

Income Taxes. Income tax expense decreased by \$23,000 to \$197,000 for the year ended December 31, 2001, as compared to an expense of \$220,000 for the year ended December 31, 2000. Income tax expense is attributable to taxable income from the continuing operations of our subsidiaries in Israel. As of December 31, 2001, we have recorded a deferred tax asset against income taxes for the period then ended. Income taxes are related to the taxable income of our Israeli subsidiaries. This income is eliminated upon consolidation of our financial statements.

Impact of Inflation. The effects of inflation and changing prices on our operations were not significant during the periods presented.

Years Ended December 31, 2000 and 1999

Revenue. We did not have any revenue for the years ended December 31, 2000 and December 31, 1999.

Research and Development Expenses. Research and development expenses decreased by \$237,000 to \$6,686,000 for the year ended December 31, 2000, as compared to expenses of \$6,923,000 for the year ended December 31, 1999. Net of non-cash compensation, research and development expenses increased by \$2,003,000 to \$3,500,000 due primarily to professional fees and expenditures on expansion of our existing research and development activities during the period. Non-cash compensation expense related to stock option grants was \$3,186,000 and \$5,426,000 for the years ended December 31, 2000 and 1999, respectively.

General and Administrative Expenses. General and administrative expenses increased by \$4,087,000 to \$5,900,000 for the year ended December 31, 2000, as compared to expenses of \$1,813,000 for the year ended December 31, 1999. Net of non-cash compensation, general and administrative expenses increased by \$2,007,000 to \$3,232,000 due primarily to professional services and expansion of our existing general and administrative activities. Non-cash compensation expense related to stock option grants was \$2,668,000 and \$588,000 for the years ended December 31, 2000 and 1999, respectively.

Interest Income (Expense), Net. Interest income, net, increased by \$1,574,000 to \$1,317,000 for the year ended December 31, 2000, as compared to an expense of \$257,000 for the year ended December 31, 1999. The increase resulted from a higher level of invested funds due primarily to proceeds from the initial public offering that closed in August 2000.

Income Taxes. Income tax expense increased by \$210,000 to \$220,000 for the year ended December 31, 2000, as compared to an expense of \$10,000 for the year ended December 31, 1999. This increase is attributable to taxable income from the continuing operations of our single subsidiary in Israel at that time. This income is eliminated upon consolidation of our financial statements.

Impact of Inflation. The effects of inflation and changing prices on our operations were not significant during the periods presented.

Liquidity and Capital Resources

We have financed our operations from inception primarily through various private and public financings. As of December 31, 2001, we had received net

proceeds of \$46.3 million from our initial public offering and \$11.6 million from private placement issuances of common and preferred stock, including \$2.9 million raised through the contribution by holders of their notes issued by our predecessor company.

As of December 31, 2001, we had \$37.9 million in cash, cash equivalents, interest receivable and short-term securities. Cash used in operating activities for the period ended December 31, 2001 was \$7.3 million as compared to \$5.2 million for the comparable period ended December 31, 2000. This increase was due primarily to increased expenses associated with the expansion of our business. Net cash provided by investing activities was \$8.0 million for the period ended December 31, 2001. This was primarily the result of long-term investment maturities, offset by capital expenditures.

We have incurred negative cash flow from operations since our inception. We anticipate incurring negative cash flow from operations for the foreseeable future. We have spent, and expect to continue to spend, substantial amounts in connection with implementing our business strategy, including our planned product development efforts, our clinical trials, and our research and discovery efforts.

As of December 31, 2001, we have known contractual obligations, commitments and contingencies of \$2,434,000. Of this amount, \$595,000 relates to research agreements, with \$583,000 due during 2002 and the remaining \$12,000 due in 2003. The additional \$1,839,000 relates to operating lease obligations, of which \$574,000 is due during 2002, a total of \$884,000 is due during 2003 and 2004, with the remaining \$381,000 due during 2005.

Contractual Obligations	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Research Agreements	\$ 595,000	\$ 583,000	\$ 12,000	--	--
Operating Leases	\$1,839,000	\$ 574,000	\$884,000	\$381,000	--
Total Contractual Cash Obligations	\$2,434,000	\$1,157,000	\$896,000	\$381,000	--

Additionally, we have undertaken to make milestone payments to certain of our licensors, contingent upon attaining certain goals, of up to approximately \$4.0 million. In certain cases, such payments will reduce any royalties due on sales of related products. In the event that the milestones are not achieved, we remain obligated to pay one licensor \$50,000 annually thereafter until the license expires.

We believe that our \$37.9 million in cash, cash equivalents, and short-term investments as of December 31, 2001 will be sufficient to enable us to meet our planned operating needs and capital expenditures until mid-2003. Our cash and cash equivalents as of December 31, 2001 are invested in highly liquid investments such as cash, money market accounts, short-term US corporate debt securities, and short-term obligations of domestic governmental agencies. As of December 31,

2001 we are unaware of any known trends or any known demands, commitments, events, or uncertainties that will, or that are reasonably likely to, result in a material increase or decrease in our required liquidity. Our liquidity needs throughout 2002 will continue to be funded from existing cash, cash equivalents, and short-term investments.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties. The actual amount of funds we will need to operate is subject to many factors, some of which are beyond our control.

These factors include the following:

- o the progress of our research activities;
- o the number and scope of our research programs;
- o the progress of our pre-clinical and clinical development activities;
- o the progress of the development efforts of parties with whom we have entered into research and development agreements;
- o our ability to maintain current research and development programs and to establish new research and development and licensing arrangements;
- o our ability to achieve our milestones under licensing arrangements;
- o the costs involved in prosecuting and enforcing patent claims and other intellectual property rights; and
- o the costs and timing of regulatory approvals.

We have based our estimate on assumptions that may prove to be wrong. We may need to obtain additional funds sooner or in greater amounts than we currently anticipate. Potential sources of financing include strategic relationships, public or private sales of our stock or debt and other sources. We may seek to access the public or private equity markets when conditions are favorable due to our long-term capital requirements. We do not have any committed sources of financing at this time, and it is uncertain whether additional funding will be available when we need it on terms that will be acceptable to us, or at all. If we raise funds by selling additional shares of common stock or other securities convertible into common stock, the ownership interest of our existing stockholders will be diluted. If we are not able to obtain financing when needed, we may be unable to carry out our business plan. As a result, we may have to significantly limit our operations and our business, financial condition and results of operations would be materially harmed.

Recently Issued Accounting Standards

In June 2001, the FASB issued SFAS No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets". SFAS 141 requires that the purchase method of accounting be used for all business combinations. SFAS 141 specifies criteria that intangible assets acquired in a

business combination must meet to be recognized and reported separately from goodwill. SFAS 142 will require that goodwill and intangible assets with indefinite useful lives no longer be amortized, but instead tested for impairment at least annually in accordance with the provisions of SFAS 142. SFAS 142 also requires that intangible assets with estimable useful lives be amortized over their respective estimated useful lives to their estimated residual values, and reviewed for impairment in accordance with SFAS 121 and subsequently, SFAS 144 after its adoption.

We adopted the provisions of SFAS 141 as of July 1, 2001, and SFAS 142 is effective for periods beginning on or after January 1, 2002. Goodwill and intangible assets determined to have an indefinite useful life acquired in a purchase business combination completed after June 30, 2001, but before SFAS 142 is adopted in full, are not amortized. Goodwill and intangible assets acquired in business combinations completed before July 1, 2001 continue to be amortized and tested for impairment prior to the full adoption of SFAS 142.

Upon adoption of SFAS 142, we are required to evaluate our existing intangible assets and goodwill that were acquired in purchase business

combinations and to make any necessary reclassifications in order to conform with the new classification criteria in SFAS 141 for recognition separate from goodwill. We will be required to reassess the useful lives and residual values of all intangible assets acquired and make any necessary amortization period adjustments by the end of the first interim period after adoption. If an intangible asset is identified as having an indefinite useful life, we will be required to test the intangible asset for impairment in accordance with the provisions of SFAS 142 within the first interim period. Impairment is measured as the excess of carrying value over the fair value of an intangible asset with an indefinite life. Any impairment loss will be measured as of the date of adoption and recognized as the cumulative effect of a change in accounting principle in the first interim period.

In connection with SFAS 142's transitional goodwill impairment evaluation, we are required to perform an assessment of whether there is an indication that goodwill is impaired as of the date of adoption. To accomplish this, we must identify our reporting units and determine the carrying value of each reporting unit by assigning the assets and liabilities, including the existing goodwill and intangible assets, to those reporting units as of January 1, 2002. We will then have up to six months from January 1, 2002 to determine the fair value of each reporting unit and compare it to the carrying amount of the reporting unit. To the extent the carrying amount of a reporting unit exceeds the fair value of the reporting unit, an indication exists that the reporting unit goodwill may be impaired and we must perform the second step of the transitional impairment test. The second step is required to be completed as soon as possible, but no later than the end of the year of adoption. In the second step, we must compare the implied fair value of the reporting unit goodwill with the carrying amount of the reporting unit goodwill, both of which would be measured as of the date of adoption. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit to all of the recognized and unrecognized assets and the liabilities of the reporting unit in a manner similar to a purchase price allocation, in accordance with SFAS 141. The residual fair value after this allocation is the implied fair value of the reporting unit goodwill. Any transitional impairment loss will be recognized as the cumulative effect of a change in accounting principle in our statement of income. We do not expect the adoption of SFAS 141 and SFAS 142 to have a significant impact on our consolidated financial statements.

In June 2001, the FASB issued SFAS 143, Accounting for Asset Retirement Obligations. SFAS 143 requires us to record the fair value of an asset retirement obligation as a liability in the period in which we incur a legal obligation associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development and/or normal use of the assets. We also record a

corresponding asset, which is depreciated over the life of the asset. Subsequent to the initial measurement of the asset retirement obligation, the obligation will be adjusted at the end of each period to reflect the passage of time and changes in the estimated future cash flows underlying the obligation. We are required to adopt SFAS 143 on January 1, 2003. We do not believe the adoption of SFAS 143 will have a significant impact on our consolidated financial statements.

In August 2001, the FASB issued SFAS 144, Accounting for the Impairment or Disposal of Long-Lived Assets. SFAS 144 addresses financial accounting and reporting for the impairment or disposal of long-lived assets. This Statement requires that long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset. SFAS

144 requires companies to separately report discontinued operations and extends that reporting to a component of an entity that either has been disposed of (by sale, abandonment, or in a distribution to owners) or is classified as held for sale. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. We are required to adopt SFAS 144 on January 1, 2002 and do not believe it will have a significant impact on our consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK.

Interest Rate Risk. The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities that we invest in may have market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the principal amount of our investment will probably decline. We maintain our portfolio in cash equivalents and short- and long-term interest bearing securities, including corporate debt, money market funds and government debt securities. The average duration of all of our investments in 2001 was less than one year. Due to the short-term nature of these investments, we believe we have no material exposure to interest rate risk arising from our investments. Therefore, no quantitative tabular disclosure is required.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Our Consolidated Financial Statements as of December 31, 2001 are presented beginning on page F-1 of this Annual Report on Form 10-K. The following table sets forth unaudited selected operating results for each of the four fiscal quarters in the years ended December 31, 2001 and December 31, 2000. We believe that the following selected quarterly information includes all adjustments, consisting only of normal, recurring adjustments, that we consider necessary to present this information fairly. You should read this financial information in conjunction with the financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. Our results of operations have fluctuated in the past and are likely to continue to fluctuate greatly from quarter to quarter in the future. Therefore, results of operations for any previous periods are not necessarily indicative of results of operations to be recorded in the future.

	2001			
	Mar. 31	June 30	Sept. 30	Dec. 31
	-----	-----	-----	-----
OPERATING EXPENSES:				
Research and development:				
Non-cash compensation	\$ 353	\$ 646	\$(1,285)	\$ 269
Other research and development	1,678	2,065	2,009	1,664
	-----	-----	-----	-----
Total research and development	2,031	2,711	724	1,933
General and administrative:				
Non-cash compensation	48	35	23	33
Other general and administrative	1,069	1,240	1,086	907
	-----	-----	-----	-----
Total general and administrative	1,117	1,275	1,109	940
LOSS FROM OPERATIONS	(3,148)	(3,986)	(1,833)	(2,873)
OTHER INCOME (EXPENSE):				
Financing income, net	870	549	582	230
Taxes on income	(110)	(10)	(59)	(18)
	-----	-----	-----	-----
NET LOSS	\$(2,388)	\$(3,447)	\$(1,310)	\$(2,661)

NET LOSS PER COMMON SHARE	=====	=====	=====	=====
Basic and diluted	\$ (0.12)	\$ (0.17)	\$ (0.07)	\$ (0.13)
	=====	=====	=====	=====
SHARES USED IN COMPUTING NET LOSS PER COMMON SHARE				
Basic and diluted	19,594,448	19,721,973	19,734,224	19,744,303
	=====	=====	=====	=====

	2001			
	-----	-----	-----	-----
	Mar. 31	June 30	Sept. 30	Dec. 31
	-----	-----	-----	-----
OPERATING EXPENSES:				
Research and development:				
Non-cash compensation	\$ 529	\$ 846	\$ 1,014	\$ 797
Other research and development	872	283	880	1,465
	-----	-----	-----	-----
Total research and development	1,401	1,129	1,894	2,262
General and administrative:				
Non-cash compensation	814	1,243	658	(47)
Other general and administrative	280	932	707	1,313
	-----	-----	-----	-----
Total general and administrative	1,094	2,175	1,365	1,266
	-----	-----	-----	-----
LOSS FROM OPERATIONS	(2,495)	(3,304)	(3,259)	(3,528)
OTHER INCOME (EXPENSE):				
Financing income (expenses)	55	98	531	633
Taxes on income	(27)	(28)	(38)	(127)
	-----	-----	-----	-----
NET LOSS	\$ (2,467)	\$ (3,234)	\$ (2,766)	\$ (3,022)
	=====	=====	=====	=====
NET LOSS PER COMMON SHARE				
Basic and diluted	\$ (0.30)	\$ (0.40)	\$ (0.17)	\$ (0.16)
	=====	=====	=====	=====
SHARES USED IN COMPUTING NET LOSS PER COMMON SHARE				
Basic and diluted	8,108,306	8,108,306	15,927,878	19,489,568
	=====	=====	=====	=====

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES.

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY.

The information required by this item is incorporated herein by reference to our Proxy Statement for our 2002 Annual Meeting of Stockholders.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this item is incorporated herein by reference to our Proxy Statement for our 2002 Annual Meeting of Stockholders.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

The information required by this item is incorporated herein by reference to our Proxy Statement for our 2002 Annual Meeting of Stockholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

The information required by this item is incorporated herein by reference to our Proxy Statement for our 2002 Annual Meeting of Stockholders.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.

(a) 1. Financial Statements.

Our Consolidated Financial Statements listed in the accompanying Index to Consolidated Financial Statements at page F-1 are filed as part of this Form 10-K.

2. Financial Statement Schedules.

All schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

3. Exhibits. (See (c) below)

(b) Reports on Form 8-K.

None.

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(c) Exhibits

Listed below are the exhibits that are filed as part of this Form 10-K (according to the number assigned to them in Item 601 of Regulation S-K). Each exhibit marked by a (*) is incorporated by reference to our Registration Statement on Form S-1 (File No. 333-37402) filed on May 19, 2000. Each exhibit marked by a (**) is incorporated by reference to the First Amendment to our Registration Statement on Form S-1 (File No. 333-37402) filed on June 30, 2000. Each exhibit marked with a (***) is incorporated by reference to our Annual Report on Form 10-K (File No. 000-30929) filed on March 30, 2001. Portions of each exhibit marked with a (!) have been redacted and filed separately with the Commission pursuant to a request for confidential treatment. Each exhibit marked (+) is a management contract or compensatory plan or arrangement filed as an exhibit to this Form 10-K pursuant to Items 14(a) and 14(c) of Form 10-K.

Exhibit

Number

Description

- | | |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1* | --Asset Purchase Agreement between Partec Ltd. (a predecessor company of Keryx Biopharmaceuticals, Inc.) and B.R.T. Biopharmaceuticals Ltd., dated as of November 11, 1999. |
| 2.2* | --Asset Purchase Agreement between Partec Ltd. and Keryx Biopharmaceuticals, Inc. (f/k/a Lakaro Biopharmaceuticals, Inc.), dated as of November 18, 1999. |
| 3.1* | --Certificate of Incorporation of Keryx Biopharmaceuticals, Inc., as amended. |
| 3.2 | -- Amended and Restated Bylaws of Keryx Biopharmaceuticals, Inc. |
| 4.1** | --Specimen Common Stock Certificate. |

- 4.2* --Form of Stock Purchase Agreement for the purchase of shares of Common Stock.
- 4.4* --Form of Contribution Agreement between Keryx Biopharmaceuticals, Inc. and the holders of 12% Convertible Notes of Partec Ltd.
- 4.5* --Warrant No. 1 for the Purchase of Shares of Common Stock between Children's Medical Center Corporation and Keryx Biopharmaceuticals, Inc., dated as of November 18, 1999.
- 4.6* --Warrant No. 2 for the Purchase of Shares of Common Stock between Children's Medical Center Corporation and Keryx Biopharmaceuticals, Inc., dated as of November 18, 1999.
- 4.7* --Form of Warrant for the Purchase of Shares of Common Stock between certain holders of Series A Preferred Stock and Keryx Biopharmaceuticals, Inc., dated as of December 14, 1999.
- 4.10* --Warrant for the Purchase of Shares of Common Stock between Paramount Capital, Inc. and Keryx Biopharmaceuticals, Inc., dated as of January 25, 2000.
- 10.1*+ --1999 Share Option Plan.
- 10.2 --Employment Agreement between Morris Laster, M.D. and Keryx Biopharmaceuticals, Inc., (f/k/a Lakaro Biopharmaceuticals, Inc.) dated as of November 19, 1999.
- 10.3 --Employment Agreement between Morris Laster, M.D. and Keryx (Israel) Biopharmaceuticals Ltd., dated as of May 1, 2000.
- 10.4 --Amended Employment Agreement between Benjamin Corn and Keryx Biopharmaceuticals, Inc., dated as of November 26, 2001.
- 10.5 --Amended Employment Agreement between Benjamin Corn and Keryx (Israel) Ltd., dated as of November 26, 2001.
- 10.6*! --Exclusive License Agreement between the Children's Medical Center Corporation and Keryx Biopharmaceuticals, Inc., dated as of November 18, 1999.
- 10.7*! --License Agreement between Alfa Wassermann S.p.A. and Partec Ltd., dated as of November 12, 1998.
- 40
- 10.8! --License Agreement between Yissum Research & Development Company of the Hebrew University of Jerusalem and Keryx Biopharmaceuticals, Inc., dated as of January 10, 2002.
- 10.9! --Research Agreement between Yissum Research and Development Company of the Hebrew University of Jerusalem and Keryx Biopharmaceuticals, Inc., dated as of January 10, 2002.
- 10.10*! --Manufacturing Agreement between Opocrin S.p.A. and Partec Ltd., dated as of April 16, 1999.
- 10.11*! --Manufacturing Agreement between Pharmaceutics International, Inc. and Keryx Biopharmaceuticals, Inc., dated as of March 17, 2000.
- 10.12*! --Research and Development Agreement between National Institutes of Health Laboratories and Keryx Biopharmaceuticals, Inc., dated as of April 10, 2000.

- 10.13* --Management Services Agreement between Keryx Biopharmaceuticals, Inc. and B.R.T. Biopharmaceuticals Ltd., dated as of November 30, 1999.
- 10.14* --Finder Agreement between Paramount Capital, Inc. and Keryx Biopharmaceuticals, Inc., dated as of November 19, 1999.
- 10.15* --Form of KRX-101 Scientific Advisory Board Agreement.
- 10.16* --Form of KinAce Scientific Advisory Board Agreement between Keryx Biopharmaceuticals, Inc. and Dr. James Broach.
- 10.17* --Tenancy Agreement between Har Hotzvim Properties Ltd. and Keryx (Israel) Ltd. (f/k/a BRT Biopharmaceuticals Ltd.), dated as of December 13, 1999.
- 10.18* --Management Agreement between Park Meir Management Company Ltd. and Keryx (Israel) Ltd., dated as of December 13, 1999.
- 10.19** --Form of KinAce Scientific Advisory Board Agreement between Moshe Oren, Ph.D. and Keryx Biopharmaceuticals, Inc.
- 10.20*+ --2000 Share Option Plan.
- 10.21***+ --Employment Agreement between Keryx Biopharmaceuticals, Inc. and Ira Weinstein, dated as of November 19, 1999.
- 10.22***+ --Employment Agreement between Keryx (Israel) Ltd. and Ira Weinstein, dated as of November 19, 1999.
- 10.23***+ --Employment Agreement between Keryx Biopharmaceuticals, Inc. and Bob Trachtenberg, dated as of November 19, 1999.
- 10.24***+ --Employment Agreement between Keryx (Israel) Ltd. and Bob Trachtenberg, dated as of November 19, 1999.
- 10.25***+ --Employment Agreement between Robert Gallahue, Jr. and Keryx Biopharmaceuticals, Inc., dated as of June 16, 2000.
- 10.26***+ --Employment Agreement between Noa Shelach and Keryx (Israel) Ltd.
- 10.27*** --Lease Agreement between RMPA Nechasim, Ltd. and Keryx (Israel) Ltd., dated as of December 21, 2000.
- 10.28*** --Amendment, dated as of March 29, 2001, to the Exclusive License Agreement between the Children's Medical Center Corporation and Keryx Biopharmaceuticals, Inc., dated as of November 18, 1999.
- 10.29 --Employment Agreement between Barry Cohen and Keryx Biopharmaceuticals, Inc., dated as of September 24, 2001.
- 10.30 --Employment Agreement between Rony Seger and Keryx Biopharmaceuticals, Inc., dated as of October 15, 2001.
- 10.31 --Employment Agreement between Rony Seger and Keryx Biomedical Technologies Ltd., dated as of October 15, 2001.
- 10.32 --Employment Agreement between Thomas J. Humphries, MD and Keryx Biopharmaceuticals, Inc., dated as of November 9, 2001.
- 10.33 --Amended Management Services Agreement between Keryx Biopharmaceuticals, Inc. and Keryx Biomedical Technologies Ltd., dated as of November 1, 2001.

- 10.34 -- Sub-lease Agreement between Keryx Biopharmaceuticals, Inc. and Zero Stage Capital, Inc., dated June 20, 2001.
- 21.1 --List of subsidiaries of Keryx Biopharmaceuticals, Inc.
- 23.1 --Consent of KPMG.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, we have duly caused this report to be signed on our behalf by the undersigned, thereunto duly authorized.

KERYX BIOPHARMACEUTICALS, INC.
 By: /s/ Benjamin Corn, MD

 Benjamin Corn, MD
 President & Chief Executive Officer

 Date: March 26, 2002

Pursuant to the requirements of the Securities Exchange Act of 1934, the following persons have signed this report below on behalf of Keryx and in the capacities and on the dates indicated.

Signature	Title	
/s/ Benjamin Corn, M.D. ----- Benjamin Corn, M.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 26, 2002
/s/ Robert Gallahue, Jr. ----- Robert Gallahue, Jr.	Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	March 26, 2002
/s/ Malcolm Hoenlein ----- Malcolm Hoenlein	Director	March 26, 2002
/s/ Peter M. Kash ----- Peter M. Kash	Vice Chairman	March 26, 2002
/s/ Morris Laster, M.D. ----- Morris Laster, M.D.	Chairman	March 26, 2002
/s/ Mark H. Rachesky, M.D. ----- Mark H. Rachesky, M.D.	Director	March 26, 2002
/s/ Lindsay A. Rosenwald, M.D. ----- Lindsay A. Rosenwald, M.D.	Director	March 26, 2002
/s/ Wayne Rothbaum ----- Wayne Rothbaum	Director	March 26, 2002
/s/ J. Wilson Totten, M.D. ----- J. Wilson Totten, M.D.	Director	March 26, 2002

Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Consolidated Financial Statements as of December 31, 2001

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Independent Auditor's Report

To the Board of Directors and Shareholders of
Keryx Biopharmaceuticals, Inc.:

We have audited the accompanying consolidated balance sheets of Keryx Biopharmaceuticals, Inc. (the "Company"), a development stage company, and its subsidiaries, as of December 31, 2001 and 2000 and the related consolidated statements of operations, statements of changes in stockholders' equity and consolidated statements of cash flows for each of the years in the three-year period ended December 31, 2001, and for the development stage period. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company, a development stage company, and its subsidiaries, at December 31, 2001 and 2000 and the results of their operations, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2001, and for the development stage period, in conformity with accounting principles generally accepted in the United States.

Somekh Chaikin

Jerusalem, Israel
February 28, 2002

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Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Consolidated Balance Sheets as of December 31

(in thousands, except share and per share amounts)

	2001	2000
	-----	-----
Assets		
Current assets		
Cash and cash equivalents (Note 2)	\$ 23,345	\$ 22,708
Investment securities, held-to-maturity (Note 3)	14,308	15,493
Accrued interest receivable	203	595
Other receivables and prepaid expenses	465	205
	-----	-----
Total current assets	38,321	39,001
	-----	-----
Investment securities, held-to-maturity	--	10,104
Investment in respect of employee severance obligations (Note 6)	291	136
Property, plant and equipment, net (Note 4)	3,338	312
Deferred tax asset (Note 9)	115	--
Other assets, net (primarily intangible assets) (Note 5)	1,002	711
	-----	-----
Total assets	\$ 43,067	\$ 50,264
	=====	=====
Liabilities and Stockholders' Equity		
Accounts payable and accrued expenses	\$ 2,376	\$ 919
Accrued compensation and related liabilities	710	174
	-----	-----
Total current liabilities	3,086	1,093
	-----	-----
Liability in respect of employee severance obligations (Note 6)	766	304
	-----	-----
Total liabilities	3,852	1,397
	-----	-----
Stockholders' equity (Note 7)		
Common stock, \$0.001 par value per share (40,000,000 and 40,000,000 shares authorized, 19,846,694 and 19,532,772 shares issued and fully paid at December 31, 2001 and 2000, respectively)	19	19
Additional paid-in capital	74,025	76,566
Unearned compensation	(1,110)	(3,805)
Deficit accumulated during the development stage	(33,719)	(23,913)
	-----	-----
Total stockholders' equity	39,215	48,867

Total liabilities and stockholders' equity	----- \$ 43,067 =====	----- \$ 50,264 =====
--------------------------------------------	-----------------------------	-----------------------------

The accompanying notes are an integral part of the consolidated financial statements.

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Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Consolidated Statements of Operations for the Year Ended December 31

(in thousands, except share and per share amounts)

	2001	2000	1999	Amounts accumulated during the development stage
	-----	-----	-----	-----
Management fees from related party	\$ --	\$ --	\$ --	\$ 300
	-----	-----	-----	-----
Expenses				
Research and development:				
Non-cash compensation	\$ (17)	\$ 3,186	\$ 5,426	\$ 8,595
Other research and development	7,416	3,500	1,497	14,388
	-----	-----	-----	-----
Total research and development expenses	7,399	6,686	6,923	22,983
	-----	-----	-----	-----
General and administrative:				
Non-cash compensation	139	2,668	588	3,395
Other general and administrative	4,302	3,232	1,225	10,297
	-----	-----	-----	-----
Total general and administrative expenses	4,441	5,900	1,813	13,692
	-----	-----	-----	-----
Total operating expenses	11,840	12,586	8,736	36,675
	-----	-----	-----	-----
Operating loss	(11,840)	(12,586)	(8,736)	(36,375)
Interest income	2,316	1,368	21	3,709
Interest expense and other bank charges	(85)	(51)	(278)	(587)
	-----	-----	-----	-----
Net loss before income taxes	(9,609)	(11,269)	(8,993)	(33,253)
Income taxes (Note 9)	197	220	10	466
	-----	-----	-----	-----
Net loss	\$ (9,806)	\$ (11,489)	\$ (9,003)	\$ (33,719)
	=====	=====	=====	=====
Basic and diluted loss per common share	\$ (0.50)	\$ (0.89)	\$ (1.11)	\$ (2.96)
	=====	=====	=====	=====
Weighted average shares used in computing basic and diluted net loss per common share	19,699,542	12,929,643	8,108,306	11,391,668

The accompanying notes are an integral part of the consolidated financial statements.

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Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Statement of Changes in Stockholders' Equity

(in thousands, except share and per share amounts)

	Series A convertible preferred stock		Common stock	
	Shares	Amount	Shares	Amount
Balance at December 31, 1998	--	\$ --	--	\$ --
Changes during the year:				
Conversion of convertible notes of Partec into stock in Keryx	--	--	--	--
Issuance of Series A convertible preferred stock to investors at \$100 per share for cash (net of issuance expenses of \$309)	50,000	--*	--	--
Issuance of Series A convertible preferred stock at \$0.001 par value to noteholders in exchange for note of predecessor	29,465	--*	--	--
Issuance of common stock to technology licensors for technology license	--	--	1,208,306	1
Compensation in respect of options granted to employees, directors and consultants	--	--	--	--
Warrants for common stock issued to technology licensor for technology license	--	--	--	--
Warrants for common stock issued to noteholders in exchange for note of predecessor	--	--	--	--
Net loss for the year	--	--	--	--
Balance at December 31, 1999	79,465	\$ --*	1,208,306	\$ 1

	Additional paid-in capital	Unearned compensation	Deficit accumulated during the development stage	Total
Balance at December 31, 1998	\$ 3,181	\$ --	\$ (3,421)	\$ (240)
Changes during the year:				
Conversion of convertible notes of Partec into stock in Keryx	2,973	--	--	2,973
Issuance of Series A convertible preferred stock to investors at \$100 per share for cash (net of issuance expenses of \$309)	4,691	--	--	4,691
Issuance of Series A convertible preferred stock at \$0.001 par value to noteholders in exchange for note of predecessor	--	--	--	--
Issuance of common stock to technology licensors for technology license	--	--	--	1
Compensation in respect of options granted to employees, directors and consultants	7,555	(2,129)	--	5,426
Warrants for common stock issued to technology licensor for technology license	725	(725)	--	--
Warrants for common stock issued to noteholders in exchange for note of predecessor	588	--	--	588
Net loss for the year	--	--	(9,003)	(9,003)
Balance at December 31, 1999	\$ 19,713	\$ (2,854)	\$ (12,424)	\$ 4,436

*Less than \$1 (thousand)

The accompanying notes are an integral part of the consolidated financial statements.

Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Statement of Changes in Stockholders' Equity (continued)

(in thousands, except share and per share amounts)

	Series A convertible preferred stock		Common stock	
	Shares	Amount	Shares	Amount
Balance at December 31, 1999	79,465	\$ --*	1,208,306	\$ 1
Changes during the year:				
Issuance of Series A convertible preferred stock to investors at \$100 per share for cash (net of issuance expenses of \$271)	39,180	--*	--	--
Receipt on account of shares issued in prior years	--	--	6,900,000	7
Conversion of Series A convertible preferred stock to common stock	(118,645)	--*	6,114,962	6
Issuance of common stock in initial public offering, including exercise of overallotment (net of issuance expenses of \$5,702)	--	--	5,200,000	5
Exercise of warrants	--	--	109,504	--*
Compensation in respect of options granted to employees, directors and consultants	--	--	--	--
Compensation in respect of warrants for common stock issued to technology licensor	--	--	--	--
Warrants of common stock issued to related party as finder's fee in private placement	--	--	--	--
Net loss	--	--	--	--
Balance at December 31, 2000	--	\$ --*	19,532,772	\$ 19

	Additional paid-in capital	Unearned compensation	Deficit accumulated during the development stage	Total
Balance at December 31, 1999	\$ 19,713	\$ (2,854)	\$ (12,424)	\$ 4,436
Changes during the year:				
Issuance of Series A convertible preferred stock to investors at \$100 per share for cash (net of issuance expenses of \$271)	3,647	--	--	3,647
Receipt on account of shares issued in prior years	--	--	--	7
Conversion of Series A convertible preferred stock to common stock	(6)	--	--	--
Issuance of common stock in initial public offering, including exercise of overallotment (net of issuance expenses of \$5,702)	46,293	--	--	46,298
Exercise of warrants	1	--	--	1
Compensation in respect of options granted to employees, directors and consultants	3,734	431	--	4,165
Compensation in respect of warrants for common stock issued to technology licensor	3,070	(1,382)	--	1,688
Warrants of common stock issued to related party as finder's fee in private placement	114	--	--	114
Net loss	--	--	(11,489)	(11,489)
Balance at December 31, 2000	\$ 76,566	\$ (3,805)	\$ (23,913)	\$ 48,867

*Less than \$1 (thousand)

The accompanying notes are an integral part of the consolidated financial statements.

Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Statement of Changes in Stockholders' Equity (continued)

(in thousands, except share and per share amounts)

	Series A convertible preferred stock		Common stock	
	Shares	Amount	Shares	Amount
Balance at December 31, 2000	--	\$ --	19,532,772	\$ 19
Changes during the year:				
Exercise of warrants	--	--	137,922	--*
Exercise of options	--	--	176,000	--*
Compensation in respect of options granted to employees, directors and consultants	--	--	--	--
Compensation in respect of warrants for common stock issued to technology licensor	--	--	--	--
Net loss	--	--	--	--
Balance at December 31, 2001	--	\$ --	19,846,694	\$ 19

	Additional paid-in capital	Unearned compensation	Deficit accumulated during the development stage	Total
Balance at December 31, 2000	\$ 76,566	\$ (3,805)	\$ (23,913)	\$ 48,867
Changes during the year:				
Exercise of warrants	10	--	--	10
Exercise of options	23	--	--	23
Compensation in respect of options granted to employees, directors and consultants	(1,514)	1,738	--	18
Compensation in respect of warrants for common stock issued to technology licensor	(1,060)	957	--	103
Net loss	--	--	(9,806)	(9,806)
Balance at December 31, 2001	\$ 74,025	\$ (1,110)	\$ (33,719)	\$ 39,215

*Less than \$1 (thousand)

The accompanying notes are an integral part of the consolidated financial statements.

Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Statement of Changes in Stockholders' Equity (continued)

(in thousands, except share and per share amounts)

	Series A convertible preferred stock		Common stock	
	Shares	Amount	Shares	Amount
Amounts accumulated during the development stage:				
Contributed capital	--	\$ --	--	\$ --
Conversion of convertible notes of Partec into stock in Keryx	--	--	--	--
Issuance of Series A convertible preferred stock to investors at \$100 per share for cash (net of issuance expenses of \$552)	89,180	--*	--	--
Issuance of Series A convertible preferred stock at \$0.001 par value to noteholders in exchange for note of predecessor	29,465	--*	--	--
Issuance of common stock to technology licensors for technology license	--	--	1,208,306	1
Receipt on account of shares issued in prior years	--	--	6,900,000	7
Conversion of Series A convertible preferred stock to common stock	(118,645)	--*	6,114,962	6
Issuance of common stock in initial public offering, including exercise of overallotment (net of issuance expenses of \$5,702)	--	--	5,200,000	5
Exercise of warrants	--	--	247,426	--*
Exercise of options	--	--	176,000	--*
Compensation in respect of options granted to employees, directors and consultants	--	--	--	--
Warrants for common stock issued to technology licensor	--	--	--	--
Warrants of common stock issued to related party as finder's fee in private placement	--	--	--	--
Warrants for common stock issued to noteholders in exchange for note of predecessor	--	--	--	--
Net loss	--	--	--	--
	-----	-----	-----	-----
	--	\$ --*	19,846,694	\$ 19
	=====	=====	=====	=====

	Additional paid-in capital	Unearned compensation	Deficit accumulated during the development stage	Total
	-----	-----	-----	-----
Amounts accumulated during the development stage:				
Contributed capital	\$ 3,181	\$ --	\$ --	\$ 3,181
Conversion of convertible notes of Partec into stock in Keryx	2,973	--	--	2,973
Issuance of Series A convertible preferred stock to investors at \$100 per share for cash (net of issuance expenses of \$552)	8,338	--	--	8,338
Issuance of Series A convertible preferred stock at \$0.001 par value to noteholders in exchange for note of predecessor	--	--	--	--
Issuance of common stock to technology licensors for technology license	--	--	--	1
Receipt on account of shares issued in prior years	--	--	--	7
Conversion of Series A convertible preferred stock to common stock	(6)	--	--	--
Issuance of common stock in initial public offering, including exercise of overallotment (net of issuance expenses of \$5,702)	46,293	--	--	46,298
Exercise of warrants	11	--	--	11
Exercise of options	23	--	--	23
Compensation in respect of options granted to employees, directors and consultants	8,715	997	--	9,712
Warrants for common stock issued to technology licensor	3,795	(2,107)	--	1,688
Warrants of common stock issued to related party as finder's fee in private placement	114	--	--	114
Warrants for common stock issued to noteholders in exchange for note of predecessor	588	--	--	588
Net loss	--	--	(33,719)	(33,719)
	-----	-----	-----	-----
	\$ 74,025	\$ (1,110)	\$ (33,719)	\$ 39,215
	=====	=====	=====	=====

*Less than \$1 (thousand)

The accompanying notes are an integral part of the consolidated financial statements.

Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Consolidated Statements of Cash Flows for the Year Ended December 31

(in thousands)

	2001	2000	1999	Amounts accumulated during the development stage
Cash flows from operating activities				
Net loss	\$ (9,806)	\$ (11,489)	\$ (9,003)	\$ (33,719)
Adjustments to reconcile cash flows used in operating activities:				
Revenues and expenses not involving cash flows:				
Employee stock compensation expense	335	3,556	4,965	8,856
Consultants' stock compensation expense	(213)	2,297	1,049	3,134
Interest on convertible notes settled through issuance of preferred shares	--	--	253	253
Provision for employee severance obligations	462	187	36	766
Depreciation and amortization	250	47	36	373
Disposal of property, plant and equipment	28	--	--	28
Exchange rate differences	62	3	--*	58
Changes in assets and liabilities:				
(Increase) decrease in other receivables and prepaid expenses	(260)	47	(202)	(460)
Decrease (increase) in accrued interest receivable	392	(595)	--	(203)
(Increase) in deferred tax asset	(115)	--	--	(115)
Increase (decrease) in amounts due to related party	--	(141)	141	--
Increase (decrease) in other payable and accrued expenses	982	778	(97)	1,897
Increase in accrued compensation and related liabilities	536	62	16	710
Net cash used in operating activities	(7,347)	(5,248)	(2,806)	(18,422)
Cash flows from investing activities				
Purchases of property, plant and equipment	(2,808)	(199)	(2)	(3,245)
Investment in other assets	(313)	(366)	(141)	(1,024)
Purchase of investment securities- in respect of employee severance obligations	(155)	(72)	(19)	(291)
Maturity (purchase) of short-term securities	1,185	(15,494)	--	(14,308)
Maturity (purchase) of long-term securities	10,104	(10,104)	--	--
Net cash provided by (used in) investing activities	\$ 8,013	\$ (26,235)	\$ (162)	\$ (18,868)

*Less than \$1 (thousand)

The accompanying notes are an integral part of the consolidated financial statements.

Keryx Biopharmaceuticals, Inc. (A Development Stage Company)

Consolidated Statements of Cash Flows for the Year Ended December 31 (continued)

(in thousands)

Amounts
accumulated
during the

	2001	2000	1999	development stage
Cash flows from financing activities				
Proceeds from short-term loans	\$ --	\$ --	\$ --	\$ 500
Proceeds from long-term loans	--	--	125	3,251
Issuance of convertible note, net	--	--	2,150	2,150
Issuance of preferred shares, net and contributed capital	--	3,761	4,692	8,453
Receipts on account of shares previously issued	--	7	--	7
Proceeds from initial public offering, net	--	46,298	--	46,298
Proceeds from exercise of options and warrants	33	1	--	34
Net cash provided by financing activities	33	50,067	6,967	60,693
Effect of exchange rate on cash	(62)	(3)	--*	(58)
Net increase in cash and cash equivalents	637	18,581	3,999	23,345
Cash and cash equivalents at beginning of year	22,708	4,127	128	--
Cash and cash equivalents at end of year	\$ 23,345	\$ 22,708	\$ 4,127	\$ 23,345
Non - cash transactions				
Conversion of short-term loans into contributed capital	\$ --	\$ --	\$ --	\$ 500
Conversion of long-term loans into contributed capital	--	--	--	2,681
Conversion of long-term loans into convertible notes of Partec	--	--	570	570
Conversion of convertible notes of Partec and accrued interest into stock in Keryx	--	--	2,973	2,973
Issuance of warrants to related party as finder's fee in private placement	--	114	--	114
Declaration of stock dividend	--	3	--*	3
Conversion of Series A preferred stock to common stock	--	--*	--	--
Purchase of property, plant and equipment on credit	475	--	--	475
Supplementary disclosures of cash flow information				
Cash paid for interest	\$ 1	\$ 3	\$ 14	\$ 138
Cash paid for income taxes	120	118	--	238

*Less than \$1 (thousand)

The accompanying notes are an integral part of the consolidated financial statements.

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Note 1 - Organization and Summary of Significant Accounting Policies

Description of Business

Keryx Biopharmaceuticals, Inc. (the "Company") is a development stage biotechnology company formed to use data discovered through the mapping of the human genome to generate and develop drug candidates. Keryx was incorporated in Delaware in October 1998 (under the name Paramount Pharmaceuticals, Inc. which was later changed to Lakaro Biopharmaceuticals, Inc. in November 1999, and finally to Keryx Biopharmaceuticals, Inc. in January 2000). The Company commenced activities in November 1999, and since then has operated in one segment of operations, namely the development and commercialization of clinical compounds and core technologies for the life sciences. The Company has not had revenues from its planned principal operations and is dependent upon significant financing to fund the working capital necessary to execute its business development plan. There can be no assurance that the Company will be able to obtain additional financing.

Until November 1999, most of the Company's activities were carried out by Partec Limited, an Israeli corporation formed in December 1996, and its subsidiaries SignalSite Inc. (85% owned) and its wholly owned subsidiary, SignalSite Israel Ltd., and Vectagen Inc. (87.25% owned) and its wholly owned subsidiary, Vectagen Israel Ltd. (hereinafter collectively referred

to as "Partec"). In November 1999, the Company acquired substantially all of the assets and liabilities of Partec and, as of that date, the activities formerly carried out by Partec are now performed by the Company. At the date of the acquisition, Keryx and Partec were entities under common control (the controlling interest owned approximately 79.7% of Keryx and approximately 76% of Partec) and accordingly, the assets and liabilities were recorded at their historical cost basis by means of an "as if" pooling and Partec is being presented as a predecessor company. Consequently, these financial statements include the activities performed in previous periods by Partec by aggregating the relevant historical financial information with the financial statements of the Company as if they had formed a discrete operation under common management for the entire development stage.

The Company owns a 100% interest in Keryx (Israel) Ltd., incorporated in Israel, and Keryx Securities Corp., a US corporation. The Company also owns a 100% interest in Keryx Biomedical Technologies Ltd., which was incorporated in Israel during 2001. At present, substantially all of the biopharmaceutical research and development activities are in Israel, and therefore, the Company has one geographical segment.

Principles of Consolidation

The consolidated financial statements include the financial statements of the Company, its subsidiaries and the operations detailed above. Intercompany transactions and balances have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Foreign Currency Translation

The financial statements of the Israeli subsidiaries have been prepared using the US dollar as the functional currency.

Transactions in foreign currency (primarily in New Israeli Shekels - "NIS") are recorded at the representative exchange rate as of the transaction date, except for activities relating to balance sheet items, which are recorded at the appropriate exchange rate of the corresponding balance sheet item. Monetary assets and liabilities in foreign currency are stated on the basis of the representative rate of exchange at the balance sheet date. Non-monetary assets and liabilities in foreign currency are stated at historical exchange rates. All exchange gains and losses from remeasurement of monetary balance sheet items denominated in non-dollar currencies are reflected in the statement of operations as they arise.

Note 1 - Organization and Summary of Significant Accounting Policies (continued)

Cash and Cash Equivalents

The Company considers all highly-liquid investments with original maturities of three months or less to be cash equivalents.

Investment Securities

Investment securities at December 31, 2001 consist of U.S. government and corporate debt securities. The Company classifies its investment securities as held-to-maturity. Held-to-maturity securities are those securities in which the Company has the ability and intent to hold the security until maturity.

Held-to-maturity securities are recorded at amortized cost, adjusted for the amortization or accretion of premiums or discounts.

A decline in the market value of any held-to-maturity security below cost, that is deemed to be other than temporary, results in a reduction in the carrying amount to fair value. The impairment is charged to earnings and a new cost basis for the security is established. Premiums and discounts are amortized or accreted over the life of the related held-to-maturity security as an adjustment to yield using the effective interest method. Dividend and interest income are recognized when earned.

Investment in Respect of Employee Severance Obligations

Investment in respect of employee severance obligations is recorded at its current redemption value.

Property, plant and equipment

Property, plant and equipment are stated at historical cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets at the following annual rates:

	%
Office furniture and equipment	6-15
Laboratory equipment	20
Computers, software and related equipment	20-33

Leasehold improvements are amortized over the lesser of 10 years or the remaining term of the lease exclusive of renewal options.

Note 1 - Organization and Summary of Significant Accounting Policies (continued)

Intangible Assets

Acquired patents and intangible assets are recorded at cost and are amortized over the remaining useful lives of these assets. The Company continually evaluates whether events and circumstances warrant the recognition of a reduction of carrying amounts.

Revenue Recognition

Revenues accumulated during the development stage arose from provision of management services to a related company and were recognized ratably over the period for which the services were provided.

Research and Development Costs

Research and development costs are expensed as incurred.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial

statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. If the likelihood of realizing the deferred tax assets or liability is less than "more likely than not," a valuation allowance is then created.

Stock - Based Compensation

The Company applies the intrinsic value-based method of accounting prescribed by the Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations, to account for stock option plans for employees and directors. As such, compensation expense would be recorded on the measurement date only if current market price of the underlying stock exceeded the exercise price. Statement of Financial Accounting Standards ("SFAS") No. 123, "Accounting for Stock-based Compensation" is applied to stock options and warrants granted to other than employees and directors. The Company has adopted the disclosure requirements of SFAS No. 123.

Impairment of Long-Lived Assets and Long-Lived Assets to be Disposed of

The Company reviews its fixed assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

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Note 1 - Organization and Summary of Significant Accounting Policies (continued)

Net Loss Per Share

Basic loss per share is computed on the basis of the weighted average number of shares outstanding for the reporting period. Diluted net loss per share is the same as basic net loss per share as the inclusion of common stock equivalents would be anti-dilutive. The common stock equivalent of anti-dilutive securities not included in the computation of net loss per share amounts was 5,730,897 for the year ended December 31, 2001 (5,224,150 in 2000 and 4,095,625 in 1999). The number of shares of common stock outstanding retroactively reflects a stock dividend declared in June 2000 (as described in Note 8). Basic net loss per share has been computed using the number of shares issued by the Company immediately following the commencement of activities in November 1999 as if outstanding for the period of the predecessor company (see Description of Business above).

Comprehensive Income (Loss)

The Company follows SFAS 130 "Reporting Comprehensive Income," which states that all items that are required to be recognized under accounting standards as components of comprehensive income be reported in a financial statement that is displayed with the same prominence as other financial statements. It requires that an enterprise (a) classify items of other comprehensive income by their nature in financial statements and (b) display the accumulated balance of other comprehensive income separately from retained earnings and additional paid in capital in the equity section of the statement of financial position. Comprehensive income (loss) is the same as net loss for all years presented.

Concentrations of Credit Risk

The Company does not have significant off-balance-sheet risk or credit risk concentrations. The Company maintains its cash and cash equivalents with multiple financial institutions and invests in investment-grade securities with maturities of less than twenty-four months.

Recently Issued Accounting Standards

In June 2001, the FASB issued SFAS No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets". SFAS 141 requires that the purchase method of accounting be used for all business combinations. SFAS 141 specifies criteria that intangible assets acquired in a business combination must meet to be recognized and reported separately from goodwill. SFAS 142 will require that goodwill and intangible assets with indefinite useful lives no longer be amortized, but instead tested for impairment at least annually in accordance with the provisions of SFAS 142. SFAS 142 also requires that intangible assets with estimable useful lives be amortized over their respective estimated useful lives to their estimated residual values, and reviewed for impairment in accordance with SFAS 121 and subsequently, SFAS 144 after its adoption.

We adopted the provisions of SFAS 141 as of July 1, 2001, and SFAS 142 is effective for periods beginning on or after January 1, 2002. Goodwill and intangible assets determined to have an indefinite useful life acquired in a purchase business combination completed after June 30, 2001, but before SFAS 142 is adopted in full, are not amortized. Goodwill and intangible assets acquired in business combinations completed before July 1, 2001 continue to be amortized and tested for impairment prior to the full adoption of SFAS 142.

Upon adoption of SFAS 142, we are required to evaluate our existing intangible assets and goodwill that were acquired in purchase business combinations, and to make any necessary reclassifications in order to conform with the new classification criteria in SFAS 141 for recognition separate from goodwill. We will be required to reassess the useful lives and residual values of all intangible assets acquired and make any necessary amortization period adjustments by the end of the first interim period after adoption. If an intangible asset is identified as having an indefinite useful life, we will be required to test the intangible asset for impairment in accordance with the provisions of SFAS 142 within the first interim period. Impairment is measured as the excess of carrying value over the fair value of an intangible asset with an indefinite life. Any impairment loss will be measured as of the date of adoption and recognized as the cumulative effect of a change in accounting principle in the first interim period.

Note 1 - Organization and Summary of Significant Accounting Policies (continued)

In connection with SFAS 142's transitional goodwill impairment evaluation, we are required to perform an assessment of whether there is an indication that goodwill is impaired as of the date of adoption. To accomplish this, we must identify our reporting units and determine the carrying value of each reporting unit by assigning the assets and liabilities, including the existing goodwill and intangible assets, to those reporting units as of January 1, 2002. We will then have up to six months from January 1, 2002 to determine the fair value of each reporting unit and compare it to the carrying amount of the reporting unit. To the extent the carrying amount of a reporting unit exceeds the fair value of the reporting unit, an indication exists that the reporting unit goodwill may be impaired and we

must perform the second step of the transitional impairment test. The second step is required to be completed as soon as possible, but no later than the end of the year of adoption. In the second step, we must compare the implied fair value of the reporting unit goodwill with the carrying amount of the reporting unit goodwill, both of which would be measured as of the date of adoption. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit to all of the recognized and unrecognized assets and liabilities of the reporting unit in a manner similar to a purchase price allocation, in accordance with SFAS 141. The residual fair value after this allocation is the implied fair value of the reporting unit goodwill. Any transitional impairment loss will be recognized as the cumulative effect of a change in accounting principle in our statement of income. We do not expect the adoption of SFAS 141 and SFAS 142 to have a significant impact on our consolidated financial statements.

In June 2001, the FASB issued SFAS 143, Accounting for Asset Retirement Obligations. SFAS 143 requires us to record the fair value of an asset retirement obligation as a liability in the period in which we incur a legal obligation associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development and/or normal use of the assets. We also record a corresponding asset which is depreciated over the life of the asset. Subsequent to the initial measurement of the asset retirement obligation, the obligation will be adjusted at the end of each period to reflect the passage of time and changes in the estimated future cash flows underlying the obligation. We are required to adopt SFAS 143 on January 1, 2003. We do not believe the adoption of SFAS 143 will have a significant impact on its consolidated financial statements.

In August, 2001, the FASB issued SFAS 144, Accounting for the Impairment or Disposal of Long-Lived Assets. SFAS 144 addresses financial accounting and reporting for the impairment or disposal of long-lived assets. This Statement requires that long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset. SFAS 144 requires companies to separately report discontinued operations and extends that reporting to a component of an entity that either has been disposed of (by sale, abandonment, or in a distribution to owners) or is classified as held for sale. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. We are required to adopt SFAS 144 on January 1, 2002 and do not believe it will have a significant impact on our consolidated financial statements.

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Note 2 - Cash and Cash Equivalents (in thousands)

	December 31, 2001	December 31, 2000
	-----	-----
In or linked to US dollars:		
Money market funds	\$ 20,338	\$ 20,489
Cash*	2,402	2,025
In Israeli currency	605	194
	-----	-----
	\$ 23,345	\$ 22,708
	=====	=====

* Of this amount, approximately \$243 at December 31, 2001 and \$40 at December 31, 2000 is restricted in connection with bank guarantees, as described in Note 11.

Note 3 - Investment Securities (in thousands)

The following tables summarize the Company's investment securities at December 31, 2001 and December 31, 2000 (regarding assumptions used for estimated fair value see note 8):

	December 31, 2001			Estimated fair value
	Amortized cost	Gross unrealized holding gains	Gross unrealized holding losses	
Short-term investments				
Obligations of domestic governmental agencies (mature between January and June 2002)	\$ 3,720	\$ 3	\$ --	\$ 3,723
US corporate debt securities (mature between January and September 2002)	10,588	51	(7)	10,632
	-----	-----	-----	-----
	14,308	54	(7)	14,355
	=====	=====	=====	=====
Long-term investments	--	--	--	--
	-----	-----	-----	-----
	\$ --	\$ --	\$ --	\$ --
	=====	=====	=====	=====

	December 31, 2000			Estimated fair value
	Amortized cost	Gross unrealized holding gains	Gross unrealized holding losses	
Short-term investments				
Obligations of domestic governmental agencies (mature in September 2001)	\$ 3,496	\$ 11	\$ (2)	\$ 3,505
US corporate debt securities (mature between January and August 2001)	11,997	31	-	12,028
	-----	-----	-----	-----
	15,493	42	(2)	15,533
	=====	=====	=====	=====
Long-term investments				
Obligations of domestic governmental agencies (mature between January and February 2002)	2,783	14	(4)	2,793
US corporate debt securities (mature between February and July 2002)	7,321	8	-	7,329
	-----	-----	-----	-----
	\$ 10,104	\$ 22	\$ (4)	\$ 10,122
	=====	=====	=====	=====

Note 4 - Property, plant and equipment (in thousands)

	December 31, 2001	December 31, 2000
	-----	-----
Cost		
Office furniture and equipment	\$ 391	\$ 162
Laboratory equipment	624	27
Computers, software and related equipment	305	127
Leasehold improvements	2,212	95
	-----	-----
	3,532	411
Accumulated depreciation and amortization	(194)	(99)
	-----	-----
Net book value	\$ 3,338	\$ 312
	=====	=====

Note 5 - Other Assets (in thousands)

	December 31, 2001	December 31, 2000
	-----	-----
Patents and other intangible assets	\$ 979	\$ 711
Long-term deposits	45	--
	-----	-----
	1,024	711
Patent amortization	(22)	--
	-----	-----
	\$ 1,002	\$ 711
	=====	=====

Note 6 - Liability in Respect of Employee Severance Obligations (in thousands)

Under Israeli law, employers are required to make severance payments to dismissed employees and employees leaving employment in certain other circumstances, on the basis of the latest monthly salary for each year of service.

This liability is provided for by payments of premiums to insurance companies under approved plans and by a provision in these financial statements.

For the year ended December 31, 2001, \$462 (2000 - \$187 and 1999 - \$36) was recorded as salary expense in respect of future severance obligations and \$155 (2000 - \$72) was funded under the severance payment plans and is included in these financial statements as long-term investments.

Note 7 - Stockholders' Equity (in thousands, except share amounts)

Composition

	December 31, 2001			December 31, 2000		
	Authorized	Issued	Issued and fully paid	Authorized	Issued	Issued and fully paid
Common stock, \$0.001 par value per share	40,000,000	19,846,694	19,846,694	40,000,000	19,532,772	19,532,772
"Blank check" preferred stock, \$0.001 par value per share	4,830,000	--	--	4,830,000	--	--

- (1) In June 2000, the board of directors declared a 3:2 common stock dividend, which was effective in conjunction with the Company's initial public offering whereby the stockholders received one share of common stock for each two shares of common stock held at July 15, 2000. These financial statements have been prepared to reflect the stock dividend.
- (2) The Company completed its initial public offering of 4.6 million shares of its common stock at \$10 per share pursuant to a Registration Statement on Form S-1 (Registration no. 333-37402) which was effective on July 28, 2000. Additionally, the underwriters exercised their overallotment option and purchased an additional 600,000 shares of the Company's common stock, at \$10 per share, on August 30, 2000. Total proceeds of this offering, including the exercise of the over-allotment option, were approximately \$46.3 million, net of underwriting fees and offering expenses of approximately \$5.7 million.

As a result of the offering, all outstanding shares of Series A convertible preferred stock automatically converted into 6,114,962 shares of common stock.

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Note 7 - Stockholders' Equity (continued)

Stock Option Plans

In November 1999, the Company adopted a stock option plan (the "1999 plan") pursuant to which the Company's board of directors may grant stock-based awards to directors, consultants and employees. The plan authorizes grants to purchase up to 4,230,000 shares of authorized but unissued common stock at a 1:1 ratio. In June 2000, the Company adopted an additional stock option plan (the "2000 plan") pursuant to which the compensation committee of the Company's board of directors may grant stock-based awards to directors, consultants and employees. The 2000 plan authorizes grants to purchase up to 4,455,000 shares of authorized but unissued common stock at a 1:1 ratio. At December 31, 2001, a total of 5,122,096 (1) stock options have been granted pursuant to the two plans and, in addition, 240,000 options, which are not part of any plan, have been granted. At December 31, 2001, 116,000 options issued to directors and employees and 60,000 options issued to consultants have been exercised. The vesting and exercise terms are as follows:

To directors and employees:

Number of	Weighted	Number of
	Averaged	Outstanding

Exercise Price	Options Outstanding	Vesting period	Expiration date	Exercise Price	Options Vested
\$0.10	2,096,587	Immediately upon grant	25 years from date of grant	\$0.10	2,096,587
0.10-0.50	1,678,533	At different dates from December 1999 through December 2004	10 years from date of grant	0.13	1,672,908
5.00-9.25	887,696			5.86	15,000
10.00-14.55	280,868			11.33	115,410

As of December 31, 2001 60,000 options granted in 1999, 30,000 options granted in 2000, and 34,332 options granted in 2001, respectively, have been cancelled and returned to the plans.

- (1) Excludes 195,000 options granted in 1999 (of which 135,000 were milestone based), 30,000 options granted in 2000, and 38,332 options granted in 2001 that were cancelled and returned to the plans.

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Note 7 - Stockholders' Equity (continued)

Stock Option Plans (continued)

The Company applies APB Opinion No. 25 in accounting for its options granted to directors and employees. The Company has recorded \$335 of compensation expense during 2001 and \$13 of compensation expense in regard to these options has been deferred. Had the Company determined compensation cost based on the fair value at the grant date for its stock options under SFAS 123, the Company's net loss would have been increased to the pro forma amounts indicated below:

(in thousands, except per share amounts)		For the year ended December 31			Amounts accumulated during the development stage
		2001	2000	1999	
Net loss	As reported	\$ (9,806)	\$ (11,489)	\$ (9,003)	\$ (33,719)
	Pro forma	\$ (12,649)	\$ (11,502)	\$ (9,049)	\$ (36,621)
Basic and diluted losses per common share	As reported	\$ (0.50)	\$ (0.89)	\$ (1.11)	\$ (2.96)
	Pro forma	\$ (0.64)	\$ (0.89)	\$ (1.12)	\$ (3.21)

The value of these options has been estimated using the Black-Scholes model. The assumptions used in the calculation of the fair value for compensation expense during the year ended December 31, 2001 were a weighted average expected life of 1-3 years, an expected volatility rate of 70-98% and a risk-free interest rate of 2-7%. The assumptions used in the calculation of the fair value for compensation expense during the years ended December 31, 2000 and 1999 were a weighted average expected life of 3 years, an expected volatility rate of 70-75% and a risk-free interest rate of 5-6%.

To consultants:

Exercise Price	Number of Options Outstanding	Vesting period	Expiration date	Weighted Averaged Exercise Price	Number of Outstanding Options Vested
----------------	-------------------------------	----------------	-----------------	----------------------------------	--------------------------------------

\$ 0.10	210,912	Immediately upon	25 years from date of grant	\$0.10	165,912
6.46-8.80	12,000	At different dates from December 1999 through April 2002	10 years from date of grant	6.85	2,000
10.00-14.55	19,500		10 years from date of grant	11.57	14,500

As of December 31, 2001 60,000 options issued to consultants have been exercised. Additionally, 135,000 options granted in 1999 and 4,000 options granted in 2001, respectively, have been cancelled and returned to the plans.

During 2001, the Company recorded negative \$316 in compensation expense with regard to these options based on the fair value at the grant date as determined using the Black-Scholes model under the assumptions stated above. Deferred compensation expense on these options amounted to \$153 at December 31, 2001. In accordance with EITF 96-18, the unvested options are revalued at every reporting period over the vesting period in order to determine the compensation expense.

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Note 7 - Shareholders' Equity (continued)

Warrants

In November 1999, the board of directors granted warrants to purchase 678,832 shares of common stock to investors and others (not directors or employees). In January 2000, the board of directors granted additional warrants to a related party to purchase 116,090 shares of common stock as a finder's fee in connection with the private placement. The costs of \$114 were recorded against proceeds from the private placement. During 2001, the Company recorded \$103 in compensation expense related to warrants and at December 31, 2001, \$944 of compensation expense in regard to these warrants remains deferred. Compensation expense during the year ended December 31, 2001 with regard to the warrants has been calculated using the Black-Scholes model assuming 0-3 year expected life of the warrants, an expected volatility rate of 78.85% and a risk-free interest rate of 2%. Compensation expense during the years ended December 31, 2000 and 1999 with regard to the warrants was calculated assuming a weighted average expected life of 3-5 years, an expected volatility rate of 70-75% and a risk-free interest rate of 5-6%.

The terms of the outstanding warrants are as follows:

Exercise Price	Number of Warrants Outstanding	Vesting period	Expiration date	Weighted Averaged Exercise Price	Number of Outstanding Warrants Vested
\$0.0067	72,564	Immediately upon grant	3 years from date of grant	\$0.0067	72,564
1.94	97,237	Immediately upon grant	10 years from date of grant	1.94	97,237
0.0067	375,000	Milestone - based	10 years from date of grant	0.0067	--

As of December 31, 2001, 247,422 warrants have been exercised and 2,699 warrants were forfeited as part of cashless exercises.

In accordance with EITF 96-18, the unvested warrants issued to consultants are revalued at every reporting period over the vesting period in order to

determine the compensation expense.

Note 8 - Fair Value of Financial Instruments

The Company's financial instruments at December 31, 2001 and 2000 consisted of cash and cash equivalents, investment securities, accrued interest receivable, other receivables, investment in respect of employee severance benefits, deferred tax asset, accounts payable and accrued expenses, accrued compensation and related liabilities and liability in respect of employee severance obligations. The carrying amounts of all financial instruments other than investment securities approximates their fair value for all years presented. The difference between the carrying value and fair value of investment securities held-to-maturity is set forth in Note 3 above.

The following methods and assumptions were used to estimate fair value of each class of financial instruments:

Cash and cash equivalents, accrued interest receivable, other receivables, investment in respect of employee severance benefits, deferred tax asset, accounts payable and accrued expenses, accrued compensation and related liabilities. The carrying amounts approximate fair value because of the relatively short maturity of these instruments.

Investment securities: The fair values of debt securities (held-to-maturity) are based on quoted market prices for these investments at the reporting date.

Liability in respect of employee severance obligations: The carrying amount reflects the approximate fair value inclusive of future salary adjustments.

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Note 9 - Taxes on Income (in thousands, unless otherwise noted)

At December 31, 2001, for US income tax purposes, the Company had approximately \$5.8 million of net operating loss carryforwards from November 1999 through December 31, 2001. Such net operating loss carryforwards begin expiring in 2019.

Because of the Company's lack of earnings history, the US deferred tax assets have been fully offset by a valuation allowance. Deferred tax assets in the financial statements relate to the Israeli subsidiaries, which have taxable income that is eliminated upon consolidation. The valuation allowance for deferred tax assets was \$12.3 million as of December 31, 2001.

The Israeli subsidiaries are subject to the Income Tax Regulations (Guidelines for Management of the Books and Records of Companies with Foreign Investment and of Certain Partnerships and Determination of Taxable Income), 1986, which state that the Israeli subsidiaries income may be calculated on the basis of their results in dollars. Partec, the predecessor company, was subject to the Israeli Income Tax Law (Inflationary Adjustments), 1985. Under this law, operating results for tax purposes are measured in real terms, in accordance with the changes in the Israeli Consumer Price Index ("Israeli CPI"), and companies are entitled to deduct from their taxable income an "equity preservation deduction" (which partially compensated for the decrease in the value of stockholders' equity resulting from the annual rise in the Israeli CPI).

In September 2001, one of the Company's Israeli subsidiaries received the status of an "Approved Enterprise" which grants certain tax benefits in accordance with Paragraph 51 of the "Law for the Encouragement of Capital

Investments, 1959," in Israel.

Income arising from the subsidiary's Approved Enterprise is subject to zero tax under the "Alternative Benefit Method" for a period of ten years. In the event of distribution by the subsidiary of a cash dividend out of retained earnings which were tax exempt due to the Approved Enterprise status, the subsidiary would have to pay a 10% corporate tax on the amount distributed, and the recipient would have to pay a 15% tax (to be withheld at source) on the amounts of such distribution received. Should the subsidiary derive income from sources other than the Approved Enterprise during the relevant period of benefits, such income will be taxable at the regular tax rate, currently 36%, in 2001 and thereafter.

The benefit period under this Approved Enterprise program has not yet commenced. Therefore, the subsidiary incurred income tax expense during the year ended December 31, 2001.

Under its Approved Enterprise status, the subsidiary must maintain certain conditions and submit periodic reports. Failure to comply with the conditions of the Approved Enterprise status could cause the subsidiary to lose all previously accumulated tax benefits. As of the date of these financial statements the subsidiary's management believes it complies with these conditions, although, as mentioned, no benefits have yet been utilized.

The tax expense reported in the consolidated financial statements relates to the subsidiaries in Israel and to Partec. Income tax expense attributable to income from continuing operations was \$197, \$220, and \$10 for the years ended December 31, 2001, 2000 and 1999, respectively, and differed from amounts computed by applying the US federal income tax rate of 35% to pretax income from continuing operations as a result of the following:

	For the year ended December 31,		
	2001	2000	1999
Losses before taxes on income, as reported in the consolidated statements of operations	\$ (9,609)	\$ (11,269)	\$ (8,993)
Computed "expected" tax benefit	\$ (3,363)	\$ (3,944)	\$ (3,147)
Increase (decrease) in income taxes resulting from:			
Expected benefit from state & local taxes	(913)	(1,673)	--
Change in the balance of the valuation allowance for deferred tax assets allocated to income tax expense (1)	4,429	5,711	2,207
Losses of Partec not entitling Keryx to deferred tax assets	--	--	976
Permanent differences	(70)	--	--
Effect of foreign operations	114	126	(26)
	\$ 197	\$ 220	\$ 10

(1) Deferred tax assets of Partec were lost upon acquisition of operations by Keryx (see Note 1).

Note 9 - Taxes on Income (continued)

The significant components of deferred income tax expense (benefit) attributable to income from continuing operations are as follows:

For the year ended December 31,

	2001 -----	2000 -----	1999 -----
Deferred tax expense (benefit)	\$ (4,544)	\$ (5,711)	\$ (2,207)
Increase in the valuation allowance for deferred tax assets	4,429	5,711	2,207
	-----	-----	-----
	\$ (115)	\$ --	\$ --
	=====	=====	=====

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2001 and 2000 are presented below.

	December 31, 2001 (1) -----	December 31, 2000 (1) -----
Deferred tax assets:		
Net operating loss	\$ 2,589	\$ 2,558
Timing differences (primarily relating to compensation and expenses capitalized for tax)	9,757	5,359
Foreign timing differences (primarily relating to compensation)	115	--
	-----	-----
Total gross deferred assets	12,461	7,917
Less valuation allowance	(12,346)	(7,917)
	-----	-----
Net deferred tax assets	\$ 115	\$ --
	=====	=====

(1) Deferred tax assets of Partec were lost upon assumption of operation by Keryx (see Note 1).

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Note 10 - Commitments and Contingencies (in thousands, unless otherwise noted)

Agreements

The Company entered into a license agreement with Alfa Wassermann SpA which grants it the exclusive rights to KRX-101 for diabetic nephropathy, diabetic retinopathy and diabetic neuropathy in the United States, Canada, Japan, Australia, New Zealand, South Africa and Israel, and entitles Alfa Wassermann to ongoing royalties and fixed milestone payments. The license requires Alfa Wassermann to pay the Company a royalty to the extent that Alfa Wasserman or its sub-licensees receive revenues from products that incorporate information or know-how developed by the Company and commits Alfa Wassermann to participate in the costs of data or intellectual property developed by the Company that Alfa Wasserman decides to utilize. Unless terminated for reason of breach or other customary termination provisions, the license terminates upon the later of the expiration of all underlying patent rights or ten years from the first commercial sale of KRX-101 by the Company.

Pursuant to a license with Children's Medical Center Corporation, (CMCC),

the Company has the exclusive right to commercialize the KinAce platform and practice the claims contained in one granted patent and ten patent applications owned by them. Unless terminated for breach or other customary termination provisions, the license terminates upon the later of November 2014 or the expiration of the last patent covered by the license.

The license obligates the Company to meet certain financing and development milestones. To date, the Company has met all of its milestones under this agreement. Should CMCC reasonably believe that the Company failed to meet any of the development milestones that remain to be fulfilled because it did not devote diligent efforts and adequate resources, the license could be terminated, which could materially affect the Company's operations. During 2001, an amendment to the license agreement was signed, whereby the date for meeting one of the milestones was extended to June 2003.

The Company has undertaken to make milestone payments to its licensors, contingent upon attaining certain goals, of up to approximately \$4.0 million. In certain cases, such payments will reduce any royalties to be paid on sales of related products. In the event that the milestones are not achieved, the Company remains obligated to pay one licensor \$50 annually thereafter until the licenses expire. As of December 31, 2001, the Company has recorded \$400 in license and milestone payments.

Manufacturing Agreements. Opocrin S.P.A., a manufacturer of bulk biological products, has agreed to manufacture and supply the Company's raw requirements for Sulodexide until 2009. The agreement with Opocrin may be terminated by the Company or them on 180 days' notice for any reason. Pharmaceutics International, Inc., a manufacturer of medicinal gelcaps, has agreed to produce the KRX-101 gelcaps necessary for the proposed clinical trial. Until the agreed-upon manufacturing is completed, this agreement may be terminated only by the Company.

Research Agreements. The Company has entered into sponsored research agreements for the development of specific products and/or technologies under which the Company is committed to finance up to \$595 of research costs through March 2003.

Regarding subsequent events, see Note 11.

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Note 10 - Commitments and Contingencies (continued)

Leases

The Company leases its laboratory and office space under three separate operating lease agreements that expire through 2005. Certain of the facility leases provide the Company with the option to renew its lease for an extended period. Total rental expense approximately \$567, \$76, and \$50 for the years ended December 31, 2001, 2000, and 1999, respectively.

Future minimum lease commitments as of December 31, 2001 are as follows (in thousands):

2002	\$574
2003	491
2004	393
2005	381

At December 31, 2001 the Company has provided bank guarantees of approximately \$243 in connection with its leases.

Note 11 - Subsequent Events

Yissum: In January 2002, the Company entered into a license agreement with Yissum Research and Development Company of the Hebrew University of Jerusalem ("Yissum"). The agreement provides the Company with an exclusive worldwide license to a novel technology known as Small Integrated Building-blocks ("SIB"), for the conversion of peptides and other existing drugs into small molecules that have the potential for oral delivery. Under this agreement the Company was required to make an upfront payment comprised of cash and the Company's common stock, as well as warrants to purchase the Company's common stock upon the attainment of certain development milestones and royalty payments on income arising from the technology.

Additionally in January 2002, the Company entered into a research agreement with Yissum to finance the research, which is being and may be carried out and conducted in the Hebrew University and/or any of its branches, related to the SIB technology. Under this agreement, the Company will be required to make periodic sponsored research payments.

HIVAN: In January 2002, the Company announced that it received approval from the South African Medicines Control Council for the initiation of a Phase II clinical trial of the Company's investigational drug Candidate KRX-101 (Sulodexide) for the treatment of Human Immunodeficiency Virus Associated Nephropathy (HIVAN) in AIDS patients. The Company initiated the clinical trial in March 2002.

AMENDED AND RESTATED

BYLAWS

of

KERYX BIOPHARMACEUTICALS, INC.
a Delaware Corporation

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AMENDED AND RESTATED

BYLAWS

of

KERYX BIOPHARMACEUTICALS, INC.
a Delaware Corporation

ARTICLE I

OFFICES

Section 1.01 Registered Office. The registered office of Keryx Biopharmaceuticals, Inc. (f/k/a Paramount Capital Pharmaceuticals, Inc.) (hereinafter called the "Corporation") shall be at such place in the State of Delaware as shall be designated by the Board of Directors (hereinafter called the "Board").

Section 1.02 Principal Office. The principal office for the transaction of the business of the Corporation shall be at such location, within or without the State of Delaware, as shall be designated by the Board.

Section 1.03 Other Offices. The Corporation may also have an office or offices at such other place or places, either within or without the State of Delaware, as the Board may from time to time determine or as the business of the Corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 2.01 Annual Meetings. Annual meetings of the stockholders of the Corporation for the purpose of electing directors and for the transaction of such other proper business as may come before such meetings may be held at such time, date and place as the Board, the Chairman of the Board, if any, the Chief Executive Officer, if any, or the President, shall determine. If no annual meeting is held in accordance with the foregoing provisions, a special meeting may be held in lieu of the annual meeting, and any action taken at that special meeting shall have the same effect as if it had been taken at the annual meeting, and in such case all references in these By-laws to the annual meeting of the stockholders shall be deemed to refer to such special meeting.

Section 2.02 Special Meetings. Special meetings of the stockholders of the Corporation for any purpose or purposes may be called at any time by the Board, the Chairman of the Board, if any, the Chief Executive Officer, if any, or the President, or by

a committee of the Board which, or officer of the corporation who, has been duly designated by the Board and whose powers and authority, as provided in a resolution of the Board or in the Amended and Restated Bylaws, include the power to call such meetings, but such special meetings may not be called by any other person or persons; provided, however, that if and to the extent that any special meeting of stockholders may be called by any other person or persons specified in any provisions of the Certificate of Incorporation or any amendment thereto or any certificate filed under Section 151(g) of the General Corporation Law of the State of Delaware (or its successor statute as in effect from time to time hereafter), then such special meeting may also be called by the person or persons, in the manner, at the time and for the purposes so specified.

Section 2.03 Place of Meetings. All meetings of the stockholders shall be held at such places, within or without the State of Delaware, as may from time to time be designated by the person or persons calling the respective meetings and specified in the respective notices or waivers of notice thereof. The Board may, in its sole discretion, determine that a meeting it has called shall not be held at any place, but may instead be held solely by means of remote communication in a manner consistent with the Delaware General Corporation Law.

Section 2.04 Notice of Meetings. Except as otherwise required by law, notice of each meeting of the stockholders, whether annual or special, shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder of record entitled to vote at such meeting (i) by delivering a typewritten or printed notice thereof to him personally, (ii) by depositing such notice in the United States mail or overnight delivery service, in a postage prepaid envelope, (iii) by-hand delivery service, charges prepaid, directed to him at his address furnished by him to the Secretary of the Corporation for such purpose or, if he shall not have furnished to the Secretary his address for such purpose, then at his address last known to the Secretary or (iv) by transmitting a notice thereof to him at such address by telegraph, telecopy, cable, wireless or by electronic transmission (consented to in a manner consistent with the Delaware General Corporation Law, by the stockholder to whom such electronic notice is given). Except as otherwise expressly required by law, no publication of any notice of a meeting of the stockholders shall be required. Every notice of a meeting of the stockholders shall state the place, if any, date and hour of the meeting and means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting shall also state the purpose or purposes for which the meeting is called. Except as otherwise expressly required by law, notice of any adjourned meeting of the stockholders need not be given if the time and place thereof are announced at the meeting at which the adjournment is taken. If notice is given by mail, such notice shall be deemed given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. If notice is given by electronic transmission, such notice shall be deemed given at the time specified in Section 232 of the General Corporation Law of the State of Delaware.

Whenever notice is required to be given to any stockholder to whom (i) notice of two consecutive annual meetings, and all notices of meetings or of the taking of action by

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written consent without a meeting to such person during the period between such two consecutive annual meetings, or (ii) all, and at least two, payments (if sent by first class mail) of dividends or interest on securities during a twelve month period, have been mailed addressed to such person at his address as shown on the records of the Corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any action or meeting which shall have been taken or held without notice to such person shall the same force and effect as if such notice had been duly given. If any such person shall deliver to the Corporation a written notice setting forth his then current address, the requirement that notice be given to such person shall be reinstated.

No notice need be given to any person with whom communication is unlawful, nor shall there be any duty to apply for any permit or license to give notice to any such person.

Section 2.05 Quorum. Except as provided by law, the holders of record of a majority in voting interest of the shares of stock of the Corporation entitled to be voted, present in person, by means of remote communications in a manner, if any, authorized by the Board in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business at any meeting of the stockholders of the Corporation or any adjournment thereof. The stockholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. In the absence of a quorum at any meeting or any adjournment thereof, a majority in voting interest of the stockholders present in person, by means of remote communication in a manner, if any, authorized by the Board in its sole discretion, or represented by proxy and entitled to vote thereat or, in the absence therefrom of all the stockholders,

any officer entitled to preside at or to act as secretary of such meeting may adjourn such meeting from time to time. At any such adjourned meeting at which a quorum is present any business may be transacted which might have been transacted at the meeting as originally called.

Section 2.06 Voting.

(a) At each meeting of the stockholders, each stockholder shall be entitled to vote in person, by means of remote communication, if any, by which stockholders may be deemed to be present in person and vote at such meeting, or by proxy, each share or fractional share of the stock of the Corporation which has voting rights on the matter in question and which shall have been held by him and registered in his name on the books of the Corporation:

(i) on the date fixed pursuant to Section 2.14 of these Amended and Restated Bylaws as the record date for the determination of stockholders entitled to notice of and to vote at such meeting, or

(ii) if no such record date shall have been so fixed, then (A) at the close of business on the day next preceding the day on which notice of the meeting shall

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be given or (B) if notice of the meeting shall be waived, at the close of business on the day next preceding the day on which the meeting shall be held.

(b) Shares of its own stock belonging to the Corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors in such other corporation is held, directly or indirectly, by the Corporation, shall neither be entitled to vote nor be counted for quorum purposes. Persons holding stock of the Corporation in a fiduciary capacity shall be entitled to vote such stock. Persons whose stock is pledged shall be entitled to vote, unless in the transfer by the pledgor on the books of the Corporation he shall have expressly empowered the pledgee to vote thereon, in which case only the pledgee, or his proxy, may represent such stock and vote thereon. Stock having voting power standing of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety or otherwise, or with respect to which two or more persons have the same fiduciary relationship, shall be voted in accordance with the provisions of the General Corporation Law of Delaware.

(c) Any such voting rights may be exercised by the stockholder entitled thereto in person or by his proxy appointed by an instrument in writing, subscribed by such stockholder or by his attorney thereunto authorized and delivered to the secretary of the meeting; provided, however, that no proxy shall be voted or acted upon after three years from its date unless said proxy shall provide for a longer period. The attendance at any meeting of a stockholder who may theretofore have given a proxy shall not have the effect of revoking the same unless he shall in writing so notify the secretary of the meeting prior to the voting of the proxy. At any meeting of the stockholders all matters, except as otherwise provided in the Certificate of Incorporation, in these Amended and Restated Bylaws or by law, shall be decided by the vote of a majority in voting interest of the stockholders present in person, by means of remote communications in a manner, if any, authorized by the Board in its sole discretion, or represented by proxy and entitled to vote thereat and thereon. The stockholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. The vote at any meeting of the stockholders on any question need not be by ballot, unless so directed by the chairman of the meeting. On a vote by ballot, each ballot shall be signed by the stockholder voting, or by his proxy if there be such proxy, and it shall state the number of shares voted.

Section 2.07 List of Stockholders. The Secretary of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least ten (10) days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with notice of a meeting, or (ii) during ordinary business hours, at the principal place of business of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time

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and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

Section 2.08 Stock Ledger. The stock ledger of the Corporation shall be the only evidence as to which the stockholders of record of the Corporation are to be determined. The stockholders are entitled to examine the stock ledger, the list required by Section 2.07 of this Article II or the books of the Corporation, or to vote in person, by means of remote communications in a manner, if any, authorized by the Board in its sole discretion, or by proxy at any meeting of stockholders.

Section 2.09 Nomination of Directors.

(a) Except for (i) any directors entitled to be elected by the holders of preferred stock or any other securities of the corporation (other than common stock) and (ii) any directors elected in accordance with Section 3.05 hereof by the Board to fill a vacancy, only persons who are nominated in accordance with the procedures in this Section 2.09 shall be eligible for election as directors. Nomination for election to the Board of the corporation at a meeting of stockholders may be made (i) by or at the direction of the Board or (ii) by any stockholder of the corporation who (x) complies with the notice procedures set forth in Section 2.09(b) and (y) is a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such meeting.

(b) To be timely, a stockholder's notice must be received by the Secretary at the principal executive offices of the corporation as follows: (x) in the case of an election of directors at an annual meeting of stockholders, not less than 60 days nor more than 90 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the ninetieth day prior to such annual meeting and not later than the close of business on the later of (A) the sixtieth day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs; or (y) in the case of an election of directors at a special meeting of stockholders, not earlier than the ninetieth day prior to such special meeting and not later than the close of business on the later of (i) the sixtieth day prior to such special meeting and (ii) the tenth day following the day on which notice of the date of such special meeting was mailed or public disclosure of the date of such special meeting was made, whichever first occurs.

The stockholder's notice to the Secretary shall set forth: (a) as to each proposed nominee (i) such person's name, age, business address and, if known,

residence address, (ii) such person's principal occupation or employment, (iii) the class and number of

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shares of stock of the corporation which are beneficially owned by such person, and (iv) any other information concerning such person that must be disclosed as to nominees in proxy solicitations pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended; (b) as to the stockholder giving the notice (i) such stockholder's name and address, as they appear on the corporation's books, (ii) the class and number of shares of stock of the corporation which are owned, beneficially and of record, by such stockholder, (iii) a description of all arrangements or understandings between such stockholder and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made by such stockholder and (iv) a representation that such stockholder intends to appear in person, by means of remote communications, if any, authorized by the Board in its sole discretion, or by proxy at the meeting to nominate the person(s) named in its notice; and (c) as to the beneficial owner, if any, on whose behalf the nomination is being made (i) such beneficial owner's name and address, (ii) the class and number of shares of stock of the corporation which are beneficially owned by such beneficial owner, and (iii) a description of all arrangements or understandings between such beneficial owner and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made. In addition, to be effective, the stockholder's notice must be accompanied by the written consent of the proposed nominee to serve as a director if elected. The corporation may require any proposed nominee to furnish such other information as may reasonably be required to determine the eligibility of such proposed nominee to serve as a director of the corporation.

(c) The chairman of any meeting shall, if the facts warrant, determine that a nomination was not made in accordance with the provisions of this Section 2.09, and if the chairman should so determine, the chairman shall so declare to the meeting and the defective nomination shall be disregarded.

(d) Except as otherwise required by law, nothing in this Section 2.09 shall obligate the corporation or the Board to include in any proxy statement or other stockholder communication distributed on behalf of the corporation or the Board information with respect to any nominee for director submitted by a stockholder.

Section 2.10 Notice of Business at Annual Meetings.

(a) At any annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board, (ii) otherwise properly brought before the meeting by or at the direction of the Board, or (iii) properly brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, (i) if such business relates to the election of directors of the corporation, the procedures in Section 2.09 must be complied with and (ii) if such business relates to any other matter, the stockholder must (x) have given timely notice thereof in writing to the Secretary in accordance with the procedures set forth in Section 2.10(b) and (y) be a stockholder of record on the date of the giving of such notice and on

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the record date for the determination of stockholders entitled to vote at such annual meeting.

(b) To be timely, a stockholder's notice must be received by the Secretary

at the principal executive offices of the corporation not less than 60 days nor more than 90 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the ninetieth day prior to such annual meeting and not later than the close of business on the later of (A) the sixtieth day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs.

The stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and address, as they appear on the corporation's books, of the stockholder proposing such business, and the name and address of the beneficial owner, if any, on whose behalf the proposal is made, (iii) the class and number of shares of stock of the corporation which are owned, of record and beneficially, by the stockholder and beneficial owner, if any, (iv) a description of all arrangements or understandings between such stockholder or such beneficial owner, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder and any material interest of the stockholder or such beneficial owner, if any, in such business, and (v) a representation that such stockholder intends to appear in person, by means of remote communications, if any, authorized by the Board in its sole discretion, or by proxy at the annual meeting to bring such business before the meeting. Notwithstanding anything in these Amended and Restated Amended and Restated Bylaws to the contrary, no business shall be conducted at any annual meeting of stockholders except in accordance with the procedures set forth in this Section 2.10; provided that any stockholder proposal which complies with Rule 14a-8 of the proxy rules (or any successor provision) promulgated under the Securities Exchange Act of 1934, as amended, and is to be included in the corporation's proxy statement for an annual meeting of stockholders shall be deemed to comply with the requirements of this Section 2.10.

(c) The chairman of any meeting shall, if the facts warrant, determine that business was not properly brought before the meeting in accordance with the provisions of this Section 2.10, and if the chairman should so determine, the chairman shall so declare to the meeting and such business shall not be brought before the meeting.

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Section 2.11 Conduct of Meetings.

(a) Chairman of Meeting. Meetings of stockholders shall be presided over by the Chairman of the Board, if any, or in the Chairman's absence by the Vice Chairman of the Board, if any, or in the Vice Chairman's absence by the Chief Executive Officer, if any, or in the Chief Executive Officer's absence by the President, or in the President's absence by a Vice President, or in the absence of all of the foregoing persons by a chairman designated by the Board, or in the absence of such designation by a chairman chosen by vote of the stockholders at the meeting. The Secretary shall act as secretary of the meeting, but in the Secretary's absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

(b) Rules, Regulations and Procedures. The Board of Directors of the corporation may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the corporation as it shall deem appropriate including, without limitation, such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board, the chairman of any meeting of stockholders

shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the corporation, their duly authorized and constituted proxies or such other persons as shall be determined; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

(c) Closing of Polls. The chairman of the meeting shall announce at the meeting when the polls for each matter to be voted upon at the meeting will be opened and closed. If no announcement is made, the polls shall be deemed to have opened when the meeting is convened and closed upon the final adjournment of the meeting. After the polls close, no ballots, proxies or votes or any revocations or changes thereto may be accepted.

Section 2.12 Inspector of Election. The directors, the Chairman of the Board, if any, the Chief Executive Officer, if any, or the President, in advance of any meeting, may, but need not, appoint one or more inspectors of election to act at the meeting or any adjournment thereof. If an inspector or inspectors are not appointed, the person presiding at the meeting may, but need not, appoint one or more inspectors. In case any person who may be appointed as an inspector fails to appear or act, the vacancy may be filled by appointment made by the directors in advance of the meeting or at the

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meeting by the person presiding thereat. Each inspector so appointed shall first subscribe an oath faithfully to execute the duties of an inspector at such meeting with strict impartiality and according to the best of his ability. Such inspectors shall decide upon the qualification of the voters and shall report the number of shares represented at the meeting and entitled to vote on such question, shall conduct and accept the votes, and, when the voting is completed, shall ascertain and report the number of shares voted respectively for and against the question. Reports of the inspectors shall be in writing and subscribed and delivered by them to the Secretary of the Corporation. Inspectors need not be stockholders of the Corporation, and any officer of the Corporation may be an inspector on any question other than a vote for or against a proposal in which he shall have a material interest. No director or candidate for the office of director shall act as an inspector of an election of directors.

Section 2.13 No Stockholder Action Without Meetings. Stockholders of the Corporation may not take any action by written consent in lieu of a meeting.

Section 2.14 Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which record date: (i) in the case of determination of stockholders entitled to vote at any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than sixty nor less than ten days before the date of such meeting and (ii) in the case of any other action, shall not be more than sixty days prior to such other action. If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of

business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

ARTICLE III

BOARD OF DIRECTORS

Section 3.01 General Powers. The property, business and affairs of the Corporation shall be managed by or under the direction of the Board, which may exercise all of the powers of the Corporation, except such as are by the Certificate of Incorporation, by these Amended and Restated Bylaws or by law conferred upon or reserved to the stockholders.

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Section 3.02 Number and Term. The Board shall consist of one or more members, the number of which shall be determined from time to time by resolution of the Board. Directors need not be stockholders of the Corporation. Each director shall hold office until the next annual meeting of stockholders and until a successor is elected and qualified or until the director resigns or is removed.

Section 3.03 Election of Directors. The directors shall be elected by the stockholders of the Corporation, and at each election the persons receiving the greatest number of votes, up to the number of directors then to be elected, shall be the persons then elected. The election of directors is subject to any provisions contained in the Certificate of Incorporation relating thereto, including any provisions for a classified board, if any.

Section 3.04 Resignation and Removal. Any director of the Corporation may resign at any time by giving written notice to the Board or to the Secretary of the Corporation. Any such resignation shall take effect at the time specified therein, or, if the time is not specified, it shall take effect immediately upon its receipt; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Except as otherwise provided by the Certificate of Incorporation or by law, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of shares then entitled to vote at an election of directors.

Section 3.05 Vacancies. Except as otherwise provided in the Certificate of Incorporation, any vacancy in the Board, whether because of death, resignation, disqualification, an increase in the number of directors, or any other cause, may be filled by vote of the majority of the remaining directors, although less than a quorum, or by a sole remaining director. Each director so chosen to fill a vacancy shall hold office until the next annual meeting of stockholders, subject to his or her successor having been elected and qualified or until he or she shall resign or shall have been removed. No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of his term of office.

Upon the resignation of one or more directors from the Board, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided hereinabove in the filling of other vacancies.

Section 3.06 Place of Meeting; Meeting by Conference Communications Equipment. The Board may hold any of its meetings at such place or places within or without the State of Delaware as the Board may from time to time by resolution designate or as shall be designated by the person or persons calling the meeting or in the notice or waiver of notice of any such meeting. Directors may participate in any regular or special meeting of the Board by means of conference telephone or similar communications equipment pursuant to which all persons participating in the meeting of the Board can

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hear each other, and such participation shall constitute presence in person at such meeting.

Section 3.07 First Meeting. The Board shall meet as soon as practicable after each annual election of directors and notice of such first meeting shall not be required.

Section 3.08 Regular Meetings. Regular meetings of the Board may be held at such times as the Board shall from time to time by resolution determine. If any day fixed for a meeting shall be a legal holiday at the place where the meeting is to be held, then the meeting shall be held at the same hour and place on the next succeeding business day which is not a legal holiday. Except as provided by law, notice of regular meetings need not be given.

Section 3.09 Special Meetings. Special meetings of the Board may be called at any time by the Chairman of the Board, if any, the Chief Executive Officer, if any, the President, the Secretary or by any two (2) directors, to be held at the principal office of the Corporation, or at such other place or places, within or without the State of Delaware, as the person or persons calling the meeting may designate.

Notice of the time and place of special meetings shall be given to each director either (i) by depositing such notice in the United States mail or overnight delivery service, in a postage prepaid envelope, or by-hand delivery service, charges prepaid, addressed to him at his address as it is shown upon the records of the Corporation, or if it is not so shown on such records or is not readily ascertainable, at the place in which the meetings of the directors are regularly held, or by transmitting a notice thereof to him at such address by telegraph, telecopy or electronic mail, at least twenty-four (24) hours prior to the time of the holding of such meeting; or (ii) by orally communicating the time and place of the special meeting to him at least twenty-four (24) hours prior to the time of the holding of such meeting. Either of the notices as above provided shall be due, legal and personal notice to such director.

Section 3.10 Quorum and Action. Except as otherwise provided in these Amended and Restated Bylaws or by law, the presence of a majority of the authorized number of directors shall be required to constitute a quorum for the transaction of business at any meeting of the Board, and all matters shall be decided at any such meeting, a quorum being present, by the affirmative votes of a majority of the directors present, subject to Section 3.15. In the absence of a quorum, a majority of directors present at any meeting may adjourn the same from time to time until a quorum shall be present. Notice of any adjourned meeting need not be given. The directors shall act only as a Board, and the individual directors shall have no power as such.

Section 3.11 Action by Consent. Any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if all members of the Board or Committee, as the case may be, consent to the action in writing or by electronic transmission, and the written consents and electronic transmissions are filed with the minutes of proceedings of the Board or Committee.

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Section 3.12 Compensation. No stated salary need be paid to directors, as such, for their services but, as fixed from time to time by resolution of the Board, the directors may receive directors' fees, compensation and reimbursement for expenses for attendance at directors' meetings, for serving on committees and for discharging their duties; provided that nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

Section 3.13 Committees. The Board may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and provided in the resolution of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it.

Unless the Board otherwise provides, each committee designated by the Board may make, alter and repeal rules for conduct of its business. In the absence of such rules each committee shall conduct its business in the same manner as the Board conducts its business pursuant to these Amended and Restated Bylaws. Any such committee shall keep written minutes of its meetings and report the same to the Board when required.

Section 3.14 Officers of the Board. A Chairman of the Board or a Vice Chairman may be appointed from time to time by the Board and shall have such powers and duties as shall be designated by the Board.

Section 3.15 Interested Directors. No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because his or their votes are counted for such purpose if (i) the material facts as to his or their relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or (ii) the material facts as to his or their relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the disinterested stockholders; or (iii) the contract or transaction is fair as to the Corporation as of the time it is authorized,

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approved or ratified, by the Board of Directors, a committee thereof or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

ARTICLE IV

OFFICERS

Section 4.01 Officers. The officers of the Corporation shall be a President, a Secretary and a Treasurer. The Corporation may also have, at the discretion of the Board, a Chairman of the Board, a Chief Executive Officer, one or more Vice Presidents, one or more Assistant Vice Presidents, one or more Assistant Secretaries, one or more Assistant Treasurers and such other officers as may be appointed in accordance with the provisions of Section 4.03 of these Amended and Restated Bylaws. One person may hold two or more offices, except that the Secretary may not also hold the office of President.

Section 4.02 Election and Term. The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 4.03 or Section 4.05 of these Amended and Restated Bylaws, shall be chosen annually by the Board, and each shall hold his office until he shall resign or shall be removed or otherwise disqualified to serve, or until his successor shall be elected and qualified.

Section 4.03 Subordinate Officers. The Board may appoint, or may authorize the Chief Executive Officer, if any, or the President to appoint, such other officers as the business of the Corporation may require, each of whom shall have such authority and perform such duties as are provided in these Amended and Restated Bylaws or as the Board, the Chief Executive Officer, if any, or the President from time to time may specify, and shall hold office until he shall resign or shall be removed or otherwise disqualified to serve.

Section 4.04 Removal and Resignation. Any officer may be removed, with or without cause, by a majority of the directors at the time in office, at any regular or special meeting of the Board, or, except in case of an officer chosen by the Board, by the Chief Executive Officer, if any, or President upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Board, the Chairman of the Board, the Chief Executive Officer, if any, the President or the Secretary of the Corporation. Any such resignation shall take effect at the date of the receipt of such notice or at any later time specified therein; and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 4.05 Vacancies. A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner

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prescribed in the Amended and Restated Bylaws for the regular appointments to such office.

Section 4.06 President. Except as may be provided in accordance with Section 4.08, the President of the Corporation shall, subject to the control of the Board, have general supervision, direction and control of the business and affairs of the Corporation. He shall preside at all meetings of stockholders and the Board. He shall have the general powers and duties of management usually vested in the chief executive officer of a corporation, and shall have such other powers and duties with respect to the administration of the business and affairs of the Corporation as may from time to time be assigned to him by the Board or as prescribed by the Amended and Restated Bylaws.

Section 4.07 Chairman of the Board. The Chairman of the Board, if any, shall preside at all meetings of the stockholders and the Board and exercise and perform such other powers and duties with respect to the administration of the business and affairs of the Corporation as may from time to time be assigned to him by the Board or as is prescribed by these Amended and Restated Bylaws.

Section 4.08 Chief Executive Officer/Chief Operating Officer/Office of the

Chief Executive. In the event the Board of Directors elects a Chief Executive Officer and/or a Chief Operating Officer, or establishes an Office of the Chief Executive, the person or persons so elected or the members of such office shall individually or jointly, as the case may be, have general and active management of the property, business and affairs of the Corporation, subject to the supervision and control of the Board. The Chief Executive Officer, the Chief Operating Officer, or members of the Office of the Chief Executive, as the case may be, also shall have such powers and perform such other duties as prescribed from time to time by the Board of Directors.

Section 4.09 Vice President. The Vice President(s), if any, shall exercise and perform such powers and duties with respect to the administration of the business and affairs of the Corporation as from time to time may be assigned to each of them by the President, by the Chief Executive Officer, if any, by the Chairman of the Board, if any, or by the Board or as is prescribed by the Amended and Restated Bylaws. In the absence or disability of the Chief Executive Officer, if any, and the President, the Vice Presidents, in order of their rank as fixed by the Board, or if not ranked, the Vice President designated by the Board, shall perform all of the duties of the President and when so acting shall have all of the powers of and be subject to all the restrictions upon the Chief Executive Officer, if any, and the President.

Section 4.10 Secretary. The Secretary shall keep, or cause to be kept, a book of minutes at the principal office for the transaction of the business of the Corporation, or such other place as the Board may order, of all meetings of directors and stockholders, with the time and place of holding, whether regular or special, and if special, how authorized and the notice thereof given, the names of those present at directors' meetings, the number of shares present or represented at stockholders' meetings and the proceedings thereof.

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The Secretary shall keep, or cause to be kept, at the principal office for the transaction of the business of the Corporation or at the office of the Corporation's transfer agent, a share register, or a duplicate share register, showing the names of the stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates issued for the same, and the number and date of cancellation of every certificate surrendered for cancellation.

The Secretary shall give, or cause to be given, notice of all the meetings of the stockholders and of the Board required by these Amended and Restated Bylaws or by law to be given, and he shall keep the seal of the Corporation in safe custody, and shall have such other powers and perform such other duties as may be prescribed by the Board or these Amended and Restated Bylaws. If for any reason the Secretary shall fail to give notice of any special meeting of the Board called by one or more of the persons identified in Section 3.09 of these Amended and Restated Bylaws, or if he shall fail to give notice of any special meeting of the stockholders called by one or more of the persons identified in Section 2.02 of these Amended and Restated Bylaws, then any such person or persons may give notice of any such special meeting.

Section 4.11 Treasurer. The Treasurer shall keep and maintain or cause to be kept and maintained, adequate and correct accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, surplus and shares. Any surplus, including earned surplus, paid-in surplus and surplus arising from a reduction of capital, shall be classified according to source and shown in a separate account. The books of account at all reasonable times shall be open to inspection by any director.

The Treasurer shall deposit all moneys and other valuables in the name and to the credit of the Corporation with such depositories as may be designated by the Board. He shall disburse the funds of the Corporation as may be ordered by the Board, shall render to the President, to the Chief Executive Officer, if

any, and to the directors, whenever they request it, an account of all of his transactions as Treasurer and of the financial condition of the Corporation, and shall have such other powers and perform such other duties as may be prescribed by the Board or these Amended and Restated Bylaws.

Section 4.12 Assistant Secretaries. Except as may be otherwise provided in these By-Laws, Assistant Secretaries, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the Chief Executive Officer, if any, the President, any Vice President, if there be one, or the Secretary, and in the absence of the Secretary or in the event of his disability or refusal to act, shall perform the duties of the Secretary, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Secretary.

Section 4.13 Assistant Treasurers. Assistant Treasurers, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the Chief Executive Officer, if any, the President, any Vice President, if there be one, or the Treasurer, and in the absence of the Treasurer or in the event of his disability or refusal to act, shall perform the duties of the Treasurer, and

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when so acting, shall have all the powers of and be subject to all the restrictions upon the Treasurer. If required by the Board of Directors, an Assistant Treasurer shall give the Corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the Corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the Corporation.

Section 4.14 Other Officers. Such other officers as the Board of Directors may choose shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors. The Board of Directors may delegate to any other officer of the Corporation the power to choose such other officers and to prescribe their respective duties and powers.

Section 4.15 Compensation. The compensation of the officers of the Corporation, if any, shall be fixed from time to time by the Board.

Section 4.16 Voting Securities Owned by the Corporation. Powers of attorney, proxies, waivers of notice of meeting, consents and other instruments relating to securities owned by the Corporation may be executed in the name of and on behalf of the Corporation by the Chief Executive Officer, if any, President or any Vice President and any such officer may, in the name of and on behalf of the Corporation, take all such action as any such officer may deem advisable to vote in person or by proxy at any meeting of security holders of any corporation in which the Corporation may own securities and at any such meeting shall possess and may exercise any and all rights and power incident to the ownership of such securities and which, as the owner thereof, the Corporation might have exercised and possessed if present. The Board of Directors may, by resolution, from time to time confer like powers upon any other person or persons.

ARTICLE V

CONTRACTS, CHECKS, DRAFTS, BANK ACCOUNTS, ETC.

Section 5.01 Execution of Contracts. The Board, except as otherwise provided in these Amended and Restated Bylaws, may authorize any officer or officers, agent or agents, to enter into any contract or execute any instrument in the name and on behalf of the Corporation, and such authority may be general or confined to specific instances; and unless so authorized by the Board or by these Amended and Restated Bylaws, no officer, agent or employee shall have any

power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or in any amount.

Section 5.02 Checks, Drafts, Etc. All checks, drafts or other orders for payment of money, notes or other evidence of indebtedness, issued in the name of or payable to the Corporation, shall be signed or endorsed by such person or persons and in such manner as, from time to time, shall be determined by resolution of the Board. Each such person shall give such bond, if any, as the Board may require.

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Section 5.03 Deposit. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board may select, or as may be selected by any officer or officers, assistant or assistants, agent or agents, attorney or attorneys, of the Corporation to whom such power shall have been delegated by the Board. For the purpose of deposit and for the purpose of collection for the account of the Corporation, the President, the Chief Executive Officer, any Vice President or the Treasurer (or any other officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation who shall be determined by the Board from time to time) may endorse, assign and deliver checks, drafts and other orders for the payment of money which are payable to the order of the Corporation.

Section 5.04 General and Special Bank Accounts. The Board from time to time may authorize the opening and keeping of general and special bank accounts with such banks, trust companies or other depositories as the Board may select or as may be selected by an officer or officers, assistant or assistants, agent or agents, or attorney or attorneys of the Corporation to whom such power shall have been delegated by the Board. The Board may make such special rules and regulations with respect to such bank accounts, not inconsistent with the provisions of these Amended and Restated Bylaws, as it may deem expedient.

Section 5.05 Audits, Accounts and Reports. The books of account of the Company shall be audited at least once during each year by a firm of independent certified accountants.

Section 5.06 Access. All books and records of the Company shall be kept at the principal place of business of the Company. Each shareholder may at its own expense, after giving written notice to the Company, audit, investigate and familiarize itself with the operations of the Company using its own employees or such certified public accounting firm, qualified external auditor or other advisers as it may select. The shareholders' rights under this Section, which shall include the right to make copies of any relevant documents, shall be exercised such that the actions of the shareholders or their respective agents do not interfere unreasonably with the operation of the Company in its ordinary course of business.

Section 5.07 Fiscal Year. The fiscal year of the Company shall end on the last day of each calendar year.

Section 5.08 Accounting Policy. The Company shall maintain accounting records, accounts and related financial statements in accordance with United States generally accepted accounting principles applied on a consistent basis.

Section 5.09 Dividends. Dividends upon the capital stock of the Corporation, subject to the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, and may be paid in cash, in property, or in shares of the capital stock. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or

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sums as the Board of Directors from time to time, in its absolute discretion, deems proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for any proper purpose, and the Board of Directors may modify or abolish any such reserve.

ARTICLE VI

SHARES AND THEIR TRANSFER

Section 6.01 Certificates For Stock. Every owner of stock of the Corporation shall be entitled to have a certificate or certificates, in such form as the Board shall prescribe, certifying the number and class of shares of the stock of the Corporation owned by him. The certificates representing shares of such stock shall be numbered in the order in which they shall be issued and shall be signed in the name of the Corporation by the Chairman of the Board, the President or a Vice President and by the Secretary or an Assistant Secretary or by the Treasurer or an Assistant Treasurer. Any or all of the signatures on the certificates may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon any such certificate shall thereafter have ceased to be such officer, transfer agent or registrar before such certificate is issued, such certificate may nevertheless be issued by the Corporation with the same effect as though the person who signed such certificate, or whose facsimile signature shall have been placed thereupon, were such officer, transfer agent or registrar at the date of issue. A record shall be kept of the respective names of the persons, firms or corporations owning the stock represented by such certificates, the number and class of shares represented by such certificates, respectively, and the respective dates thereof, and in case of cancellation, the respective dates of cancellation. Every certificate surrendered to the Corporation for exchange or transfer shall be canceled, and no new certificate or certificates shall be issued in exchange for any existing certificate until such existing certificate shall have been so canceled, except in cases provided for in Section 6.04 of these Amended and Restated Bylaws.

Section 6.02 Transfer of Stock. Transfer of shares of stock of the Corporation shall be made only on the books of the Corporation by the registered holder thereof, or by his attorney thereunto authorized by power of attorney duly executed and filed with the Secretary, or with a transfer clerk or a transfer agent appointed as provided in Section 6.03 of these Amended and Restated Bylaws, and upon surrender of the certificate or certificates for such shares properly endorsed and the payment of all taxes thereon. The person in whose name shares of stock stand on the books of the Corporation shall be deemed the owner thereof for all purposes as regards the Corporation. Whenever any transfer of shares shall be made for collateral security, and not absolutely, such fact shall be stated expressly in the entry of transfer if, when the certificate or certificates shall be presented to the Corporation for transfer, both the transferor and the transferee request the Corporation to do so.

Section 6.03 Regulations. The Board may make such rules and regulations as it may deem expedient, not inconsistent with these Amended and Restated Bylaws, concerning the issue, transfer and registration of certificates for shares of the

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stock of the Corporation. The Board may appoint, or authorize any officer or officers to appoint, one or more transfer clerks or one or more transfer agents and one or more registrars, and may require all certificates for stock to bear the signature or signatures of any of them.

Section 6.04 Lost, Stolen, Destroyed and Mutilated Certificates. In any case of loss, theft, destruction, or mutilation of any certificate of stock,

another may be issued in its place upon proof of such loss, theft, destruction, or mutilation and upon the giving of a bond of indemnity to the Corporation in such form and in such sums as the Board may direct; provided, however, that a new certificate may be issued without requiring any bond when, in the judgment of the Board, it is proper to do so.

Section 6.05 Representation of Shares of Other Corporations. The President or any Vice President and the Secretary or any Assistant Secretary of this Corporation are authorized to vote, represent and exercise on behalf of this Corporation all rights incident to all shares of any other corporation or corporations standing in the name of this Corporation. The authority herein granted to said officers to vote or represent on behalf of this Corporation any and all shares held by this Corporation in any other corporation or corporations may be exercised either by such officers in person or by any person authorized so to do by proxy or power of attorney duly executed by said officers.

ARTICLE VII

INDEMNIFICATION

Section 7.01 Power To Indemnify in Actions, Suits or Proceedings Other Than Those by or in the Right of the Corporation. Subject to Section 7.03 of this Article VII, the Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he is or was a director or officer of the Corporation, or is or was a director or officer of the Corporation serving at the request of the Corporation as a director or officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act 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 reasonable cause to believe that his conduct was unlawful.

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Section 7.02 Power To Indemnify in Actions, Suits or Proceedings by or in the Right of the Corporation. Subject to Section 7.03 of this Article VII, the Corporation shall 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 or officer of the Corporation, or is or was a director or officer of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 7.03 Authorization of Indemnification. Any indemnification under this Article VII (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director or officer is proper in the circumstances because he has met the applicable standard of conduct set forth in Section 7.01 or Section 7.02 of this Article VII, as the case may be. Such determination shall be made (i) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (ii) if such a quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (iii) by the stockholders who were not parties to such action, suit or proceeding. To the extent, however, that a director or officer of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding described above, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith, without the necessity of authorization in the specific case.

Section 7.04 Good Faith Defined. For purposes of any determination under Section 7.03 of this Article VII, a person shall be deemed to have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, or, with respect to any criminal action or proceeding, to have had no reasonable cause to believe his conduct was unlawful, if his action is based on the records or books of account of the Corporation or another enterprise, or on information supplied to him by the officers of the Corporation or another enterprise in the course of their duties, or on the advice of legal counsel for the Corporation or another enterprise or on information or records given or reports made to the Corporation or another enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Corporation or another enterprise. The term "another enterprise" as used in this Section 7.04 shall mean any other corporation or any

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partnership, joint venture, trust, employee benefit plan or other enterprise of which such person is or was serving at the request of the Corporation as a director, officer, employee or agent. The provisions of this Section 7.04 shall not be deemed to be exclusive or to limit in any way the circumstances in which a person may be deemed to have met the applicable standard of conduct set forth in Sections 7.01 or 7.02 of this Article VII, as the case may be.

Section 7.05 Indemnification by a Court. Notwithstanding any contrary determination in the specific case under Section 7.03 of this Article VII, and notwithstanding the absence of any determination thereunder, any director or officer may apply to any court of competent jurisdiction in the State of Delaware for indemnification to the extent otherwise permissible under Sections 7.01 and 7.02 of this Article VII. The basis of such indemnification by a court shall be a determination by such court that indemnification of the director or officer is proper in the circumstances because he has met the applicable standards of conduct set forth in Sections 7.01 or 7.02 of this Article VII, as the case may be. Neither a contrary determination in the specific case under Section 7.03 of this Article VII nor the absence of any determination thereunder shall be a defense to such application or create a presumption that the director or officer seeking indemnification has not met any applicable standard of conduct. Notice of any application for indemnification pursuant to this Section 7.05 shall be given to the Corporation promptly upon the filing of such application. If successful, in whole or in part, the director or officer seeking indemnification shall also be entitled to be paid the expense of prosecuting such application.

Section 7.06 Expenses Payable in Advance. Expenses incurred by a director or officer in defending or investigating a threatened or pending action, suit or proceeding shall be paid by the Corporation in advance of the final disposition

of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this Article VII.

Section 7.07 Nonexclusivity of Indemnification and Advancement of Expenses. The indemnification and advancement of expenses provided by or granted pursuant to this Article VII shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any By-Law, agreement, contract, vote of stockholders or disinterested directors or pursuant to the direction (howsoever embodied) of any court of competent jurisdiction or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, it being the policy of the Corporation that indemnification of the persons specified in Sections 7.01 and 7.02 of this Article VII shall be made to the fullest extent permitted by law. The provisions of this Article VII shall not be deemed to preclude the indemnification of any person who is not specified in Sections 7.01 or 7.02 of this Article VII but whom the Corporation has the power or obligation to indemnify under the provisions of the General Corporation Law of the State of Delaware, or otherwise.

Section 7.08 Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director or officer of the Corporation,

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or is or was a director or officer of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power or the obligation to indemnify him against such liability under the provisions of this Article VII.

Section 7.09 Certain Definitions. For purposes of this Article VII, references to "the Corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors or officers, so that any person who is or was a director or officer of such constituent corporation, or is or was a director or officer of such constituent corporation serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, shall stand in the same position under the provisions of this Article VII with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued. For purposes of this Article VII, references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the Corporation" shall include any service as a director, officer, employee or agent of the Corporation which imposes duties on, or involves services by, such director or officer with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the Corporation" as referred to in this Article VII.

Section 7.10 Survival of Indemnification and Advancement of Expenses. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VII shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director or officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 7.11 Limitation On Indemnification. Notwithstanding anything contained in this Article VII to the contrary, except for proceedings to enforce rights to indemnification (which shall be governed by Section 7.05 hereof), the Corporation shall not be obligated to indemnify any director or officer in connection with a proceeding (or part thereof) initiated by such person unless such proceeding (or part thereof) was authorized or consented to by the Board of Directors of the Corporation.

Section 7.12 Indemnification of Employees and Agents. The Corporation may, to the extent authorized from time to time by the Board of Directors, provide rights to indemnification and to the advancement of expenses to employees and agents of the Corporation similar to those conferred in this Article VII to directors and officers of the Corporation.

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ARTICLE VIII

MISCELLANEOUS

Section 8.01 Seal. The Board shall provide a corporate seal, which shall be in the form of a circle and shall bear the name of the Corporation and words and figures showing that the Corporation was incorporated in the State of Delaware and showing the year of incorporation.

Section 8.02 Waiver of Notices. Whenever notice is required to be given under any provision of these Amended and Restated Bylaws, the Certificate of Incorporation or by law, a written waiver, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when a person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in any written waiver of notice unless required by the Certificate of Incorporation.

Section 8.03 Loans and Guaranties. The Corporation may lend money to, or guarantee any obligation of, and otherwise assist any officer or other employee of the Corporation or of its subsidiaries, including any officer who is a director, whenever, in the judgment of the Board, such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty, or other assistance may be with or without interest, and may be unsecured or secured in such manner as the Board shall approve, including, without limitation, a pledge of shares of stock of the Corporation.

Section 8.04 Gender. All personal pronouns used in these Amended and Restated Bylaws shall include the other genders, whether used in the masculine, feminine or neuter gender, and the singular shall include the plural, and vice versa, whenever and as often as may be appropriate.

Section 8.05 Amendments. These Amended and Restated Bylaws, or any of them, may be rescinded, altered, amended or repealed, and new Amended and Restated Bylaws may be made (i) by the Board, by vote of a majority of the number of directors then in office as directors, acting at any meeting of the Board or (ii) by the stockholders, by the vote of at least seventy-five (75%) of the outstanding shares of voting stock of the Corporation, at an annual meeting of stockholders, without previous notice, or at any special meeting of stockholders, provided that notice of such proposed amendment, modification, repeal or adoption is given in the notice of special meeting; provided, however, that Section 2.02 of these Amended and Restated Bylaws can only be amended if that Section as amended would not conflict with the Corporation's Certificate of Incorporation. Any Bylaw made or altered by the stockholders may be altered or repealed by the Board or may be altered or repealed by the stockholders.

EMPLOYMENT AGREEMENT

This Agreement, dated November 26, 2001, by and between Keryx Biopharmaceuticals, Inc. ("Keryx"), a Delaware corporation having an address at 101 Main Street, Cambridge, Massachusetts, United States of America, and Benjamin Corn, an individual residing at 1 Zelda Street, Jerusalem, Israel (the "Employee")

WITNESSETH:

WHEREAS, the Corporation desires to employ the Employee as Chief Executive Officer and President of Keryx and the Employee desires to be employed by the Keryx as Chief Executive Officer and President of Keryx, all pursuant to the terms and conditions hereinafter set forth;

NOW THEREFORE, in consideration of the foregoing and the mutual promises and covenants herein contained, it is agreed as follows:

1. EMPLOYMENT DUTIES

(a) Keryx hereby engages and employs the Employee, and the Employee accepts engagement and employment, as Chief Executive Officer and President of Keryx, to direct, supervise and have responsibilities for the daily operations of Keryx, including, but not limited to: (i) directing and supervising the business and research and development efforts of Keryx; (ii) managing the other executives and personnel of Keryx and (iii) evaluating, negotiating, structuring and implementing business transactions with Keryx's customers, partners and suppliers, and to perform such other services and duties as the Board of Directors of Keryx shall determine. The Employee acknowledges and agrees that the performance by the Employee of his duties hereunder may require significant domestic and international travel by the Employee. In addition, the Employee realizes that he may be required to spend a substantial amount of time in Jerusalem, Israel.

(b) The Employee shall devote substantially all of his gainful time to the discharge of his duties and responsibilities under this Agreement.

2. TERM

The Employee's employment hereunder shall commence on the Effective Date and continue thereafter unless sooner terminated as hereinafter provided.

3. COMPENSATION

(a) As compensation for the performance of his duties on behalf of Keryx, the Employee shall be compensated as follows:

(i) Keryx will grant the Employee options (the "Options") to purchase 150,000 shares of the Common Stock of the Corporation at an exercise price equal to \$5.31 per share (the "Exercise Price"), which options shall be exercisable for a period of 10 years from the date of issuance. Should any change be made to the Common Stock by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, appropriate adjustments shall be made to (i) the total number and/or class of securities subject to such options and (ii) the Exercise Price in order to reflect such change and thereby preclude a dilution or enlargement under such options.

(ii) One-twelfth of the stock options shall vest each quarter over three years following the actual date of grant.

(iii) At the discretion of the Board of Directors, the Employee shall be entitled to an annual grant of subsequent stock options each of which shall have the same antidilution protection as described in Section 3 paragraph (a)(i) above.

(b) Keryx shall reimburse the Employee for all normal, usual and necessary expenses incurred by the Employee in furtherance of the business and affairs of Keryx, including travel and entertainment, against receipt by Keryx of appropriate vouchers or other proof of the Employee's expenditures and otherwise in accordance with such Expense Reimbursement Policy as may from time to time be adopted by the Board of Directors of Keryx.

(c) The Employee shall be, during the term of this Agreement, entitled to thirty (30) working days of vacation per year.

(d) During the Term of his employment, the Employee shall be entitled to participate in all employee and fringe benefit plans and programs generally offered to other members of the Corporation's management who are similarly situated, including, without limitation, any pension, profit sharing, incentive, retirement, insurance, health and disability benefits and plans. Keryx reserves its right to modify or terminate any of its employee and fringe benefit plans and programs at any time.

(e) Keryx shall maintain as part of the its Bylaws a broad form indemnity of all actions taken in good faith by its officers and directors.

(f) Subject to Section 10(b) below, the Employee must be an employee of Keryx at the time any compensation is due in order to receive such compensation. In addition, no options shall vest after the termination of this Agreement.

4. REPRESENTATIONS AND WARRANTIES BY THE EMPLOYEE AND KERYX

(a) The Employee hereby represents and warrants to Keryx as follows:

(i) Neither the execution and delivery of this Agreement nor the performance by the Employee of his duties and other obligations hereunder violate any statute, law, determination or award, or conflict with or constitute a default under (whether immediately, upon the giving of notice or lapse of time or both) any prior employment agreement, contract, or other instrument to which the Employee is a party or by which he is bound.

(ii) The Employee has the full right, power and legal capacity to enter and deliver this Agreement and to perform his duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the Employee enforceable against him in accordance with its terms. No approvals or consents of any persons or entities are required for the Employee to execute and deliver this Agreement or perform his duties and other obligations hereunder.

(b) Keryx hereby represents and warrants to the Employee as follows:

(i) Keryx is duly organized, validly existing and in good standing under the laws of the State of Delaware, with all requisite corporate power and authority to own its properties and conduct its business in the manner presently described.

(ii) Keryx has the full power and authority to enter into this Agreement and to incur and perform its obligations hereunder.

(iii) The execution, delivery and performance by Keryx of this Agreement does not conflict with or result in a breach or violation of or

constitute a default under (whether immediately, or upon the giving of notice or lapse of time or both) the certificate of incorporation or by-laws of Keryx, or any agreement or instrument to which Keryx is a party or by which Keryx or any of its properties may be bound or affected.

5. CONFIDENTIAL INFORMATION

(a) The Employee agrees that during the course of his employment and at any time thereafter, he will not disclose or make accessible to any other person, Keryx's products, services and technology, both current and under development, promotion and marketing programs, lists, trade secrets and other confidential and proprietary business information of Keryx or any of its clients. The Employee agrees: (i) not to use any such information for himself or others; and (ii) not to take any such material or reproductions thereof from Keryx's facilities at any time during his employment by Keryx, except as required in the Employee's duties to Keryx. The Employee agrees immediately to return all such material and reproductions in his possession to Keryx upon request and in any event upon termination of employment. Nothing in the foregoing shall be construed to prevent the Employee from disclosing or using any information which the Employee can show by written documentation was in the public domain or enters into the public domain through no improper act on the Employee's part or on the part of any of Keryx's employees or was in his possession prior to his joining Keryx or disclosed properly to the Employee after leaving Keryx.

(b) Except with prior written authorization by Keryx, the Employee agrees not to disclose or publish any of the confidential, technical or business information or material of Keryx, its clients or any other party to whom Keryx owes an obligation of confidence, at any time during or for a period of two years after his employment with Keryx except in the event of involuntary no cause termination by Keryx or a termination by the Employee for cause.

6. NON-COMPETITION

(a) The Employee understands and recognizes that his services to Keryx are special and unique and agrees that, during the term of this Agreement, and for a period of 12 months from the date of termination of his employment hereunder, he shall not in any manner, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), enter into or engage in any business directly competitive with Keryx's business, either as an individual for his own account, or as a partner, joint venturer, Employee, agent, consultant, salesperson, officer, director or shareholder of a Person operating or intending to operate within the area that Keryx is, at the date of termination, conducting its business (the "Restricted Businesses"); provided, however, that nothing herein will preclude the Employee from holding one percent (1%) or less of the stock of any publicly traded company or from holding a position with a Person who does not engage in a business directly competitive with the Restrictive Businesses so long as the Employee works in a division of such Person which carries on a bona fide business which is not directly competitive with the Restricted Businesses.

(b) For a period of 12 months after the termination of this Agreement, the Employee shall not interfere with or disrupt or attempt to disrupt Keryx's business relationship with any of its customers, or solicit any of the employees of Keryx.

(c) In the event that the Employee breaches any provisions of this Section 6 or there is a threatened breach, then, in addition to any other rights which Keryx may have, Keryx shall be entitled, without the posting of a bond or other security, to injunctive relief to enforce the restrictions contained herein. In the event that an actual proceeding is brought in equity to enforce the provisions of this Section 6, the Employee shall not argue as a defense that there is an adequate remedy at law nor shall Keryx be prevented from seeking any other remedies which may be available.

7. OWNERSHIP OF PROPRIETARY INFORMATION

(a) The Employee agrees that all information that has been created, discovered or developed by Keryx, its subsidiaries, affiliates, successors or assigns (collectively, the "Affiliates") (including, without limitation, information relating to the development of Keryx's business created, discovered, developed or made know to Keryx or the Affiliates by Employee during the Term and information relating to Keryx's customers, suppliers, consultants, and licensees) and/or in which property rights have been assigned or otherwise conveyed to Keryx or the Affiliates, shall be the sole property of Keryx or the Affiliates, as applicable, and Keryx or the Affiliates, as the case may be, shall be the sole owner of all patents, copyrights and other rights in connection therewith, including but not limited to the right to make application for statutory protection. All of the aforementioned information is hereinafter called "Proprietary Information." By way of illustration, but not limitation, Proprietary Information includes trade secrets, processes, discoveries, structures, inventions, designs, ideas, works of authorship, copyrightable works, trademarks, copyrights, formulas, data, know-how, show-how, improvements, inventions, product concepts, techniques, information or statistics contained in, or relating to, marketing plans, strategies, forecasts, blueprints, sketches, records, notes, devices, drawings, customer lists, patent applications, continuation applications, continuation-in-part applications, file wrapper continuation applications and divisional applications and information about Keryx's or the Affiliates' employees and/or consultants (including, without limitation, the compensation, job responsibility and job performance of such employees and/or consultants).

(b) The Employee further agrees that at all times, both during the Term and after the termination of this Agreement, he will keep in confidence and trust all Proprietary Information, and he will not use or disclose any Proprietary Information or anything directly relating to it without the written consent of Keryx or the Affiliates, as appropriate, except as may be necessary in the ordinary course of performing his duties hereunder and except for academic, non-commercial research purposes with the prior written approval of the Board of Directors. The Employee acknowledges that the Proprietary Information constitutes a unique and valuable asset of Keryx and each Affiliate acquired at great time and expense, which is secret and confidential and which will be communicated to Employee, if at all, in confidence in the course of his performance of his duties hereunder, and that any disclosure or other use of the Proprietary Information other than for the sole benefit of Keryx or the Affiliates would be wrongful and could cause irreparable harm to Keryx or the Affiliates, as the case may be.

Notwithstanding the foregoing, the parties agree that, at all such times, Employee is free to use (i) information in the public domain not as a result of a breach of this Agreement, (ii) information lawfully received from a third party and (iii) Employee's own skill, knowledge, know-how and experience to whatever extent and in whatever way he wishes, in each case consistent with his obligations as Employee and that, at all times, Employee is free to conduct any non-commercial research not relating to Keryx's business.

8. DISCLOSURE AND OWNERSHIP OF INVENTIONS

(a) During the Term, Employee agrees that he will promptly disclose to Keryx, or any persons designated by Keryx, all improvements, inventions, designs, ideas, works of authorship, copyrightable works, discoveries, trademarks, copyrights, trade secrets, formulas, processes, structures, product concepts, marketing plans, strategies, customer lists, information about Keryx's or the Affiliates' employees and/or consultants (including, without limitation, job performance of such employees and/or consultants), techniques, blueprints, sketches, records, notes, devices, drawings, know-how, data, whether or not patentable, patent applications, continuation applications, continuation-in-part applications, file wrapper continuation applications and divisional applications, made or conceived or reduced to practice or learned by him, either alone or jointly with others, during the Term (all said improvements, inventions, designs, ideas, works of authorship, copyrightable works,

discoveries, trademarks, copyrights, trade secrets, formulas, processes, structures, product concepts, marketing plans, strategies, customer lists, information about Keryx's or the Affiliates' employees and/or consultants, techniques, blueprints, sketches, records, notes, devices, drawings, know-how, data, patent applications, continuation applications, continuation-in-part applications, file wrapper continuation applications and divisional applications shall be collectively hereinafter called "Inventions").

(b) The Employee agrees that all Inventions shall be the sole property of Keryx to the maximum extent permitted by applicable law and to the extent permitted by law shall be "works made for hire" as that term is defined in the United States Copyright Act (17 USCA, Section 101). Keryx shall be the sole owner of all patents, copyrights, trade secret rights, and other intellectual property or other rights in connection therewith. Employee hereby assigns to Keryx all right, title and interest he may have or acquire in all Inventions. Employee further agrees to assist Keryx in every proper way (but at Keryx's expense) to obtain and from time to time enforce patents, copyrights or other rights on said Inventions in any and all countries, and to that end the Employee will execute all documents necessary:

(i) to apply for, obtain and vest in the name of Keryx alone (unless Keryx otherwise directs) letters patent, copyrights or other analogous protection in any country throughout the world and when so obtained or vested to renew and restore the same; and

(ii) to defend any opposition proceedings in respect of such applications and any opposition proceedings or petitions or applications for revocation of such letters patent, copyright or other analogous protection.

(c) The Employee's obligation to assist Keryx in obtaining and enforcing patents and copyrights for the Inventions in any and all countries shall continue beyond the Term, but Keryx agrees to compensate the Employee at his normal and usual rate after the expiration of the Term for time actually spent by the Employee at Keryx's request on such assistance.

9. NON-SOLICITATION

During the Term, and for 12 months thereafter, Employee shall not, directly or indirectly, without the prior written consent of Keryx:

(a) solicit or induce any employee of Keryx or any Affiliate to leave the employ of Keryx or any Affiliate or hire for any purpose any employee of Keryx or any Affiliate or any employee who has left the employment of Keryx or any Affiliate within six months of the termination of said employee's employment with Keryx; or

(b) solicit or accept employment or be retained by any party who, at any time during the Term, was a customer or supplier of Keryx or any Affiliate where his position will be related to the business of Keryx; or

(c) solicit or accept the business of any customer or supplier of Keryx or any Affiliate with respect to products similar to those supplied by Keryx.

10. TERMINATION

(a) This Employee's employment hereunder shall begin on the Effective Date and shall continue for the period set forth in Section 2 hereof unless sooner terminated upon the first to occur of the following events:

- (i) (A) the death of the Employee; or
- (B) the total disability of the Employee.

(ii) Termination by the Board of Directors of Keryx for just cause. Any of the following actions by the Employee shall constitute just cause:

(A) Material breach by the Employee of Sections 5, 6, 7, 8, or 9 of this Agreement; or

(B) Material breach by the Employee of any provision of this Agreement other than Sections 5, 6, 7, 8 or 9 which is not cured by the Employee within 30 days of notice from Keryx; or in the event the breach is not curable within 30 days; the commencement of action(s) to cure within said 30 days and the diligent pursuit of the cure thereafter, provided such breach may be completely cured; or

(C) Any action by the Employee constituting gross negligence, recklessness or willful misconduct in respect of the Employee's obligation to Keryx which has or is likely to result in material, economic damage to Keryx.

(iii) Termination by the Employee for just cause. Any of the following actions or omissions by Keryx shall constitute just cause.

(A) Material breach by Keryx of any provision of this Agreement which is not cured by Keryx within 30 days of notice thereof from the Employee; or

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(B) A failure to elect or reelect the Employee to the office of Employee of Keryx or other change by Keryx of the Employee's function, duties or responsibilities such that the Employee is no longer the highest ranking Officer of Keryx; or

(C) A "change in control," which shall mean a merger or consolidation in which either more than 50% of the voting power of Keryx is transferred or Keryx is not the surviving entity, or sale or other disposition of all or substantially all the assets of Keryx; or

(D) Termination of the Employee's employment other than for serious, willful misconduct in respect of the Employee's obligations to the Corporation, including, but not limited to, final conviction for a felony or perpetration of a common-law fraud which has or is likely to result in material economic damage to the Corporation; or

(E) Relocation to a geographic area without the Employee's prior consent.

(iv) Termination by Keryx without cause. Notwithstanding anything in this Agreement, Keryx may terminate the Employee's employment without cause upon three (3) months prior notice.

(b) Upon termination by Keryx for any reason other than the reasons set forth in subparagraph (i) or (ii) of paragraph (a) above, or upon termination by the Employee for any reason set forth in subparagraph (iii) of paragraph (a) above, then the Options shall immediately vest and become exercisable at the option of the Employee.

11. NOTICES

Any notice or other communication under this Agreement shall be in writing and shall be deemed to have been given: when delivered personally against receipt thereof; one (1) business day after being sent by Federal Express or similar overnight delivery; or three (3) business days after being mailed registered or certified mail, postage prepaid, return receipt requested, to either party at the address set forth above, or to such other address as such party shall give by notice hereunder to the other party.

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12. SEVERABILITY OF PROVISIONS

If any provision of this Agreement shall be declared by a court of competent jurisdiction to be invalid, illegal or incapable of being enforced in whole or in part, the remaining conditions and provisions or portions thereof shall nevertheless remain in full force and effect and enforceable to the extent they are valid, legal and enforceable, and no provision shall be deemed dependent upon any other covenant or provision unless so expressed herein.

13. ENTIRE AGREEMENT MODIFICATION

This Agreement contains the entire agreement of the parties relating to the subject matter hereof, and the parties hereto have made no agreements, representations or warranties relating to the subject matter of this Agreement which are not set forth herein. No modification of this Agreement shall be valid unless made in writing and signed by the parties hereto.

14. BINDING EFFECT

The rights, benefits, duties and obligations under this Agreement shall inure to, and be binding upon, Keryx, its successors and assigns, and upon the Employee and his legal representatives. This Agreement constitutes a personal service agreement, and the performance of the Employee's obligations hereunder may not be transferred or assigned by the Employee.

15. NON-WAIVER

The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and said terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party.

16. GOVERNING LAW

This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the Commonwealth of Massachusetts without regard to principles of conflicts of law. Any litigation commenced pursuant to the terms

of the Agreement shall only be prosecuted and defended in the courts located in Boston, Massachusetts. Additionally, the prevailing party in any litigation shall be entitled to an additional award of the recoupment of its attorney fees, cost and expenses.

17. REMEDIES FOR BREACH

The Employee understands and agrees that any breach of Sections 5, 6, 7, 8 or 9 of this Agreement by the Executive could cause irreparable damage to Keryx and to the Affiliates, and that monetary damages alone would not be adequate and, in the event of such breach, Keryx shall have, in addition to any and all remedies of law, the right to an injunction, specific performance or other equitable relief to prevent or redress the violation of Keryx's rights under such Sections.

18. HEADINGS

The headings of paragraphs are inserted for convenience and shall not affect any interpretation of this Agreement.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

EMPLOYEE:

By: /s/ Benjamin Corn

Name: Benjamin Corn

KERYX BIOPHARMACEUTICALS, INC.

By: /s/ Ira Weinstein

Name: Ira Weinstein
Title: Chief Operating Officer

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AMENDED EMPLOYMENT AGREEMENT

This employment agreement (the "Agreement") is effective as of November 26, 2001 (the "Effective Date"), by and between Keryx (Israel) Ltd., an Israeli company with its principal place of business at 7 Hartom Street, POB 23706 Jerusalem 91236 (the "Company") and Benjamin Corn, of Rehov Zelda 1, Jerusalem (the "Employee").

Whereas the Company desires to employ the Employee in the position of Chief Executive Officer and President (the "Position");

Whereas the Employee desires to be employed by the Company and fulfill the responsibilities of the Position; and

Whereas the parties desire to set forth the conditions of employment pursuant to which the Employee will be employed by the Company;

It is hereby agreed by and between the parties as follows:

1. Preamble

The preamble to this Agreement and any attachments thereto are an integral part of this Agreement.

2. Job Description

The Employee shall have the title of Chief Executive Officer and President and shall be responsible for the overall management, direction and leadership of the Company. He shall report directly to the Board of Directors. The description of responsibilities set forth herein shall serve as a general statement of the duties, responsibilities and authority of the Employee. Additional duties, responsibilities and authority may be assigned to the Employee by the Board of Directors from time to time in its reasonable discretion.

3. Working Hours

The Employee shall be employed by the Company on a full-time basis, namely for not less than forty-four (44) hours per week (inclusive of meal time). The Employee agrees that his position is considered to be a management position as defined in the Hours of Work and Rest Law - 1951, which requires a special measure of personal trust. Accordingly, the provisions of the Hours of Work and Rest Law - 1951 shall not apply and the Employee shall not be entitled to receive any additional payment for his work other than those that are set forth in this Agreement.

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4. Term of Agreement

This Agreement shall take effect from the Effective Date and shall remain in effect unless it is earlier terminated as hereinafter provided.

5. Annual Salary

5.1. The Employee's annual salary shall be as follows:

5.1.1. The Employee shall receive an annual gross salary of two hundred and fifty thousand dollars (\$250,000), payable in New Israeli Shekels according to the representative rate of exchange in effect each month at the time Company salaries are calculated. The Employee's salary shall be paid in twelve equal installments, monthly in arrears.

5.1.2. At least once each calendar year, the Employee's annual gross salary may be increased by an amount to be determined by the Board of Directors, but in no event shall such increase be less than the increase in the Israeli Cost of Living Index for the year each anniversary date.

5.1.3 The salary set forth in paragraph 5.1.1, above, shall be referred to as the "Global Salary". The linkage of the Global Salary to the United States dollar is in lieu of any generally-applicable increases, whether the statutory cost of living increase ("Tosefet Yoker") or any other industry-wide increase applicable as the result of collective bargaining agreements or other order of the Ministry of Labor and Welfare (such as Tzavei Harhava). By signing this Agreement and accepting employment pursuant to its terms, the Employee represents that s/he will not claim any such increase.

5.1.4. The Employee shall not be entitled to receive from the Company any salary or payment of any kind other than the Global Salary and other payments specifically set forth in this Agreement or properly authorized by the Board of Directors and, should the Employee be a director of the Company at the time such other payments not specifically included in this Agreement are made, by the shareholders of the Company.

5.2. Other Terms of Employment

5.2.1. Bonuses: The Employee shall be eligible to receive one or more bonuses during any calendar year in the discretion of the Chief Executive Officer, acting in consultation with the Board of Directors.

5.2.2. Expenses: The Employee shall be entitled, in accordance with the Company's standard policy in effect from time to time, to be reimbursed for expenses (Hotza'ot Eshel) incurred in Israel and abroad in connection with Company business against receipt by the Company of appropriate vouchers, receipts or other proof of the Employee's expenditures.

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5.2.3. Continuing Education Fund: The Employee shall be entitled to participate in the Company's continuing education fund (Keren Hishtalmut). The Company shall contribute an amount equal to five percent (5%) of the Employee's Global Salary and shall deduct two and a half percent (2.5%) of the Employee's Global Salary and transfer it as the Employee's contribution. The Employee consents to the deduction of this amount as his contribution to the continuing education fund. These contributions will be calculated up to the permissible tax-exempt salary ceiling according to the income tax regulations in effect from time to time. If the amount of the Company's contribution is greater than permitted by those regulations, the Employee shall not have the right to receive the excess amount.

5.2.4. Professional Expenses: The Company shall reimburse the Employee for expenses incurred by him in connection with the maintenance of (a) his medical license in the United States, including, but not limited to, the costs of any continuing medical education ("CME") required as a condition of such license; and (b) membership in a reasonable number of professional societies and organizations.

5.2.5. Reserve Duty: The Employee shall be entitled to receive his full

Global Salary and other payments while performing reserve duty, provided that any amount received by the Employee from the I.D.F. or any other source (excluding Damei Calcala) is transferred to the Company or, in the alternative, an amount equal to that received from the I.D.F. or any other source is deducted from the Global Salary payable to the Employee.

- 5.2.6. Annual Leave and Recreation Pay (Damei Havra'a): The Employee shall be entitled to thirty (30) working days of paid annual leave each year. The Employee shall not be allowed to accrue more than forty (40) working days of annual leave except in unusual circumstances and with the permission of the Company. Should the Employee's annual leave balance exceed forty (40) days at the end of any calendar year, the excess number of days shall be paid out in accordance with the provisions of the Annual Leave Law - 1951. The Company shall also pay the Employee for five (5) days of recreation (damei havra'a) each year in accordance with the law and the normal practice of the Company in effect from time to time.
- 5.2.7. Sickness and Disability Insurance: The Employee shall be entitled to the number of days for sick leave permitted by law. Compensation for sick days utilized shall be paid according to his Global Salary only upon the presentation of medical documentation as required by the Company. The Employee shall be covered by disability insurance that provides monthly compensation. The cost of such insurance shall be borne by the Company. Notwithstanding the foregoing, the Employee shall not be entitled to receive compensation for sick leave if such compensation is covered by the Employee's disability insurance

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referred to above. However, should the amounts received by the Employee pursuant to such disability insurance be less than the amount that is properly payable as compensation for the Employee's available sick leave, according to the Global Salary, the Company shall pay the difference. It is understood and agreed that unused sick leave cannot be redeemed by the Employee. For the avoidance of doubt, it is understood and agreed that the payments made by the Company in consideration of sick leave covers all obligations of the Company pursuant to the Sick Leave Law - 1976.

5.3. Pension Benefits and Severance Payments

- 5.3.1. The Company will pay into a Provident Fund (Kupat Gemel) (in the meaning of paragraph 47 of the Income Tax Ordinance) in the form of Manager's Insurance or another form according to the Employee's choice and the Company's agreement, an amount equal to thirteen and one third percent (13 1/3 %) from the monthly Global Salary paid to the Employee, and the Employee will pay, on his own account, an amount equal to five percent (5%) from that Global Salary. The Employee agrees that the Company shall be entitled to deduct the Employee's contribution (5%) from the Employee's salary. For the avoidance of doubt, it is clarified that under no circumstance shall the Company's contribution exceed thirteen and one third percent (13 1/3 %) of the Global Salary in any one month.
- 5.3.2. Five percent (5%) of the thirteen and one third percent (13 1/3%) that the Company contributes as set forth above and the five percent (5%) the Employee contributes, together with linkage and interest on the contributions, will be treated as pension benefits for the Employee or his survivors. The remaining eight and one third percent (8 1/3 %) of the Company's

contribution, together with linkage and interest on that portion, will be utilized to pay severance benefits to the Employee or his descendants in the event of the termination of his employment with the Company, except in those circumstances discussed below.

- 5.3.3. In the event that the Employee chooses Manager's Insurance, the policy shall belong to the Company as long as it employs the Employee and it makes the required payments on the policy. The payments made into the Kupat Gemel pursuant to paragraph 5.3.1, above, shall fulfill the Company's obligation for severance payment pursuant to the Severance Compensation Law - 1963. Upon the termination of the Employee's employment, for whatever reason, and upon his final departure from the Company, the Employee or his descendants shall be entitled to receive the ownership of all rights which have accrued on his behalf in the Kupat Gemel or the ownership of the Manager's Insurance policy, as appropriate and subject to the provisions of section 6, below.
- 5.3.4. In the event that there is a difference in the Employee's favor between the amount to which he is entitled to receive pursuant to the Severance

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Compensation Law - 1963 and the severance payment amount (including linkage and interest) that is in the Kupat Gemel or Manager's Insurance policy, the Company shall pay that difference. The Company shall be obligated to pay such difference whether the termination of the Employee's employment is at the Employee's initiative or the Company's, except in the case of termination pursuant to paragraphs 6.3 and 6.4, below. For the avoidance of doubt, it is understood that in the event that the severance payment amount (including linkage and interest) that is in the Employee's Kupat Gemel or Manager's Insurance policy exceeds the amount to which he is entitled to receive as severance compensation pursuant to the Severance Compensation Law - 1963, the difference shall not be transferred to the Employee, including to his pension account, but shall be the property of the Company.

6. Termination of Employment

- 6.1. Either party may terminate the Employee's employment with the Company without cause at any time upon three (3) month's notice. The Company shall have the right, in its sole discretion, to require the Employee to continue working for the Company during the notice period.
- 6.2. The Employee's employment shall be terminated by his death or disability. (For purposes of this section, "disability" shall be deemed to have occurred if the Employee is unable, due to any physical or mental disease or condition, to perform his normal duties of employment for 120 consecutive days or 180 days in any twelve-month period.) Should the Employee's employment be terminated as a result of his death, the benefits granted in paragraph 6.3, below, shall be granted instead to his lawful heir or heirs.
- 6.3. In the event the Employee's employment is terminated (a) by the Company without cause, or because of his death or disability, or (b) by the Employee for "just cause", he shall be entitled to continue to receive his annual salary for eight (8) months following his last day of actual employment by the Company. Such amount shall be in addition to any salary he is entitled to receive during or in consideration for the notice period set forth in paragraph 6.1,

above, and any severance payment he is entitled to receive according to the provisions of the Severance Compensation Law - 1963. In addition, the Board of Directors shall take the necessary steps so that (a) any outstanding, but unvested, options granted to the Employee shall vest upon the effective date of his termination; and (b) the period during which the Employee shall be permitted to exercise such options shall be extended to two (2) years from the effective date of his termination as defined in the Share Option Plan governing the options in question.

- 6.4. Notwithstanding the foregoing, the Company may terminate the Employee immediately and without prior notice in the following circumstances: (a) a material breach of the Employee's obligations pursuant to paragraphs 8.8, 8.9 and 8.9 (confidentiality and non-competition); (b) a material breach by the Employee of any other provision of this Agreement, which is not cured by

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the Employee within fifteen (15) days after receiving notice thereof from the Company containing a description of the breach or breaches alleged to have occurred; (c) the habitual neglect or gross failure by the Employee to adequately perform the duties of his position; or (d) any criminal action connected to his employment with the Company or his place of employment.

- 6.5. In the event that Employee's employment has been terminated in accordance with paragraph 6.4, above, the Employee shall not be entitled to receive any of the severance payments set forth in paragraphs 5.3.4 and 6.3, above but shall be entitled to receive any salary or bonus accrued to the date of termination.

7. Taxes and Other Payments

- 7.1. Unless otherwise specifically provided for in this Agreement, the Company shall not be liable for the payment of taxes or other payments for which the Employee is responsible as result of this Agreement or any other legal provision, and the Employee shall be personally liable for such taxes and other payments.

- 7.2. The Employee hereby agrees that the Company shall deduct from his Global Salary the Employee's national insurance fees, income tax and other amounts required by law or the terms of this Agreement. The Company shall provide the Employee with documentation of such deductions.

8. The Obligations of the Employee

- 8.1. The Employee agrees to devote his entire business time, energy, abilities and experience to the performance of his duties, effectively and in good faith.

- 8.2. During the period of his employment, the Employee shall not be employed, whether or not during regular business hours, for pay by any other party other than the Company, except for teaching activities approved by the Chief Executive Officer. The Employee must receive the prior written consent of the Company before assuming an unpaid position outside the Company. Notwithstanding the foregoing, the Employee may, with the written permission of the Chairman of the Board of Directors, become a member of the Board of Directors of another company and may accept any compensation in connection with such position.

- 8.3. The Employee agrees to immediately inform the Company of any Company issue or transaction in which the Employee has a direct or indirect personal interest and/or where such issue or transaction could cause

a conflict of interest for the Employee in the fulfillment of his responsibilities as an employee of the Company.

- 8.4. The Employee hereby gives irrevocable instructions and permission to the Company to deduct from any amounts owed to the Employee by the Company, including amounts payable as severance compensation, (a) any debt he has or will have to the Company; and/or (b) any amount that was

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wrongfully or mistakenly paid to him by the Company. Any such amounts to be deducted shall be calculated in real terms as of the date of the deduction, including linkage to cost of living index.

- 8.5. The Company may at its discretion and at any time apply for and procure as owner and for its own benefit and at its own expense, insurance on the life of the Employee ("Key Man Life Insurance") in such amounts and in such form or forms as the Company may choose. The Employee shall cooperate with the Company in procuring such insurance and shall, at the Company's request, submit to such medical examinations, supply such information and execute such documents as may be required by the insurance company or companies to whom the Company has applied for such insurance. Neither the Employee nor any of his dependents shall have any interest whatsoever in any such policy or policies, or in the proceeds thereof.
- 8.6. The Employee declares that the terms and conditions of his employment are personal and confidential and will not be disclosed by him.
- 8.7. The Employee declares that he is free to enter into this Agreement and that he has no obligations of any kind to any third party that would impair this Agreement, either as an employee or an independent contractor. The Employee further declares that as long as he remains an employee of the Company, he will not incur any such obligations.
- 8.8. The Employee agrees to keep confidential (a) all professional, scientific, commercial, and business information; and (b) any other information or document that comes to the Employee's knowledge in connection with the affairs of the Company (collectively, the "Confidential Information"), and agrees not to use or exploit the Confidential Information or to disclose it to any third party where such use, exploitation or disclosure is not directly related to the affairs of the Company, unless the Company gives prior written authorization of such disclosure.
- 8.9. The Employee agrees that during his employment by the Company and thereafter he (a) will not disseminate or otherwise make use of the Confidential Information or of other non-public information of which he learned while working for the Company, except where such dissemination or use is directly related to the affairs of the Company; (b) will maintain the confidentiality of the Confidential Information; and (c) will not in any way act to injure the reputation of the Company or any of its affiliated companies.
- 8.10. The Employee understands and recognizes that his services to the Company are special and unique. Therefore, he agrees that during the term of this Agreement and for one (1) year after the termination for any reason of his employment, he shall not be employed in or give any services to any business or third party that competes with the Company or whose activities conflict with the activities of the Company, unless the Chairman of the Board of Directors has given his explicit written consent prior the commencement of such employment or the giving of such services.

8.11. Upon termination of his employment, the Employee agrees to assist the Company with an orderly transition of his responsibilities and to return to the Company any documents, information and/or materials that were given to him or which were created by him in connection with his employment.

9. Intellectual Property Rights

9.1. The Employee declares that he is aware that anything that is done by him in the Company or in connection with the Company, whether it be an invention, a discovery, or the development of an idea or a thing, all within the framework of the Company's business (the "Development") shall belong to and be controlled by the Company, unless the Board of Directors shall, in writing, direct otherwise.

9.2. The Company shall have the right to fully utilize and exploit the Development, as it sees fit, including changing it, registering part or all of it as a patent, whether in Israel or abroad, selling it, transferring it to a third party, all without being required to either receive the Employee's consent or pay the Employee any additional payment for such Development apart from any payment he receives pursuant to this Agreement.

9.3. The Development and any subsequent intellectual property arising therefrom shall remain the sole property of the Employer even after the Employee's employment terminates for any reason. The termination of this Agreement, whether due to its breach or its own terms, shall not impair the Company's exclusive rights in the Development. Notwithstanding the termination of this Agreement, the Board of Directors shall have the discretion to award the Employee a cash payment in accordance with the terms of paragraph 5.2.1, above, as a result of any Development or subsequent intellectual property arising therefrom developed primarily by the Employee.

9.4. The Employee may not do anything with the Development or any related materials without the knowledge and prior consent of the Company. The Employee declares that he neither has nor will have any rights in the Development or its fruits and that all rights to the Development and its fruits shall fully reside in the Company.

9.5. Even in the event that at the time of the termination of the Employee's employment for any reason the Development has not been completed, the Employee shall be prohibited from any continued activity in connection with the subject of the Development, alone or in concert with others, that is not explicitly allowed in writing by the Company. The Company alone will be the sole owner of the uncompleted Development and shall have the sole right to complete the Development or to take any other action in connection with the Development.

10. Indemnification

The Company shall take whatever steps are necessary to establish a policy of indemnifying its officers, including, but not limited to the Employee, for all actions

taken in good faith in pursuit of their duties and obligations to the Company. Such steps shall include, but shall not necessarily be limited to, the obtaining of an appropriate level of Directors and Officers Liability coverage.

11. General

- 11.1. It is agreed that the provisions of this Agreement represent the full scope of the agreement between the parties and that neither side shall be bound by any promises, declarations, exhibits, agreements or obligations, oral or written, that are not included in this Agreement prior to its execution. Any changes or amendments to this Agreement must be in writing and signed by both parties.
- 11.2. This Agreement shall be governed by, and construed and interpreted under, the laws of the State of Israel. The parties agree that any legal claim lodged by one party against the other arising from the terms of this Agreement shall be adjudicated only by the appropriate court in Jerusalem, Israel.
- 11.3. If any provision of this Agreement shall be declared by a court of competent jurisdiction to be invalid, illegal or incapable of being enforced in whole or in part, the remaining conditions and provisions or portions thereof shall nevertheless remain in full force and effect and enforceable, and no provision shall be deemed dependent upon any other covenant or provision unless so expressed herein.
- 11.4. The rights, benefits, duties and obligations under this Agreement shall inure to, and be binding upon, the Company, its successors and assigns, and upon the Employee and his legal representatives. This Agreement constitutes a personal service agreement, and the performance of the Employee's obligations hereunder may not be transferred or assigned by the Employee.
- 11.5. The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith or with any other term, condition or provision hereof, and said terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective or any purpose whatsoever unless such waiver is in writing and signed by such party.
- 11.6. The headings of Sections are inserted for convenience and shall not affect any interpretation of this Agreement.

12. Notices

- 12.1. A notice that is sent by registered mail to a party at its address as set forth in paragraph 12.2, below, shall be deemed received three (3) days after its posting, and the receipt stamped by the post office shall represent definitive evidence of the date of mailing.
- 12.2. The addresses of the parties for the purposes of this Agreement are:

Keryx (Israel) Ltd.:

7 Hartom Street
POB 23706
Jerusalem 91236

Employee:

Rehov Zelda 1
Jerusalem

IN WITNESS WHEREOF the parties have hereunto set their hands at the place and on the date first above written.

Keryx (Israel) Ltd.

By

/s/ Ira Weinstein

/s/ Benjamin Corn

Chief Operating Officer

Employee

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Asterisks denote omissions.

Exhibit 10.8

LICENSE AGREEMENT

This License Agreement, effective as of January 10, 2001 (the "Effective Date"), is entered into by and between YISSUM RESEARCH AND DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM, of 46 Jabotinsky Street, Jerusalem, Israel (the "Licensor") and KERYX BIOPHARMACEUTICALS, INC. of 101 Main Street, Cambridge, Massachusetts 02142 United States of America (the "Company").

WHEREAS, the Licensor is the owner of the patent application set forth in Appendix I attached hereto;

WHEREAS, the Licensor may discover or develop additional intellectual property, technical information or proprietary rights that may be subject to the terms of this Agreement;

WHEREAS, the Company now desires to obtain a license for the commercial development, production and marketing of a product or products to be based on the Patent Rights and Know-how within the Field of Use, both as defined herein, and any further developments, upon the terms and conditions hereinafter set forth; and

WHEREAS, Licensor agrees to grant the Company an exclusive, world-wide license to the Patent Rights and Know-how and to any product which is developed therefrom, in the Field of Use as defined hereunder, in accordance with and subject to the terms and conditions of this Agreement and subject to the full performance by the Company of its material obligations in accordance with this Agreement.

NOW, THEREFORE, it is agreed as follows:

ARTICLE 1 - DEFINITIONS

For the purposes of this License Agreement, the following words and phrases shall have the following meanings:

1.1 "Affiliate" shall mean, with respect to any Entity (as defined below), any Entity that directly or indirectly controls, is controlled by, or is under common control with such Entity. Control shall mean, for this purpose, the ability to direct the activities of an entity. Ownership of more than fifty percent (50%) of the voting power of an entity shall be considered Control for purposes of this Agreement.

1.2 "Confidential Information" means all information, including, without limitation, proprietary information and materials (whether or not patentable) regarding a party's technology, products, business information or objectives, including information relating to Net Sales and royalties hereunder, which is designated as confidential in writing by the disclosing party, whether by letter or by the use of an appropriate stamp or legend, prior to or at the time any such material, trade secret or other information is disclosed by the disclosing party to the other party. Notwithstanding the foregoing to the contrary, materials,

know-how or other information which is orally, electronically or visually disclosed by a party, or is disclosed in writing without an appropriate letter, stamp or legend, shall constitute Confidential Information of a party (a) if the disclosing party, within thirty (30) days after such disclosure, delivers to the

other party a written document or documents describing the materials, know-how or other information and referencing the place and date of such oral, visual, electronic or written disclosure and the names of the persons to whom such disclosure was made, or (b) such information is of the type that is customarily considered to be confidential information by persons engaged in activities that are substantially similar to the activities being engaged in by the parties pursuant to this Agreement.

1.3 "Entity" shall mean any corporation, association, joint venture, partnership, trust, university, business, individual, government or political subdivision thereof, including an agency, or any other organization that can exercise independent legal standing.

1.4 "Field of Use" shall mean the diagnosis, prevention and treatment of all human diseases and conditions.

1.5 "First Commercial Sale" means, for each Product, the first commercial sale in a country as part of a nationwide introduction by the Company or its Affiliates, sublicenses or distributors.

1.6 "Know-how" shall mean all information whether patentable or not (but which has not been patented) and physical objects related to the Research Program or to a Product as set forth in Appendix I. The parties shall update the list of Know-how set forth in Appendix I to include the Research Know-how as it is developed, provided that the parties' failure to so update Appendix I shall not be, in and of itself, determinative of whether something is Research Know-how under this Agreement.

1.7 "Licensed Know-how" shall mean the Know-how, the Non-exclusive Know-how and the Research Know-how.

1.8 "Licensed Patent Rights" shall mean the Patent Rights, the Non-exclusive Patent Rights and Research Patent Rights.

1.9 "Net Sales" shall mean the [**] from the sale of Products by of the Company [**] provided that [**], and/or [**]. Notwithstanding anything herein to the contrary, the following shall not be considered a sale of [**] under this Agreement: [**] by the [**] that will be [**] a Product [**] with the [**] a Product; or [**] a Product [**] with the [**] the Product.

In the event a Product is sold in the form of a [**], the Net Sales for such [**] shall be calculated by [**] the Product [**] is the [**] in the [**], in each case during the [**]. In the event that such [**] cannot be determined for both the Product and all other product(s) [**], Net Sales for the purposes of determining royalty payments shall be calculated by [**]. In such event, the Company shall [**] in the [**], and shall [**] such determination. Notwithstanding the foregoing, but subject to the [**] set forth in subparagraph 3.4, below, no calculations made in connection with a [**] shall cause the royalty [**] of the Net Sales for such [**].

1.10 "Non-Exclusive Know How" shall mean the Know How marked in Appendix I as non-exclusive. The parties agree that any Know-How that is developed by the Licensor pursuant to the Research Program shall be, by definition, exclusive to the Company subject to the terms of the license being granted pursuant to the terms of this Agreement.

1.11 "Non-Exclusive Patent Rights" shall mean

1.11.1 The provisional patent application set forth in Appendix I designated as non-exclusive;

1.11.2 Any United States utility patent application and non-United States patent applications based, in whole or in part, on the provisional

patent application set forth in subparagraph 1.11.1, above.

1.11.3 The United States and non-United States patents issued from the applications referred to in subparagraph 1.11.2, above, and from divisionals and continuations of those applications.

1.10.4 Claims of United States continuation-in-part applications, and of the resulting patents, which are based on the subject matter specifically described in the specifications in the United States and foreign patent applications described in subparagraph 1.11.2, above.

1.11.5 Any reissues, divisionals, amendments or extensions of the United States or non-United States patents described in subparagraphs 1.11.3 and 1.11.4, above.

1.12 "Patent Rights" shall mean

1.12.1 The patent application set forth in Appendix I, designated as exclusive;

1.12.2 Any non-United States patent applications claiming priority from the patent application referred to in subparagraph 1.12.1, above.

1.12.3 The United States and non-United States patents issued from the applications referred to in subparagraphs 1.12.1 and 1.12.2, above, and from divisionals and continuations of those applications.

1.12.4 Claims of United States continuation-in-part applications, and of the resulting patents, which are based on the subject matter specifically described in the specifications in the United States and foreign patent applications described in subparagraphs 1.12.1 and 1.12.2, above.

1.12.5 Any reissues, divisionals, amendments or extensions of the United States or non-United States patents described in subparagraphs 1.12.3 and 1.12.4, above.

1.12.6 The parties shall update the list of Patent Rights set forth in Appendix I to include the Research Patent Rights as they are developed, provided that the parties' failure to so update Appendix I shall not be, in and of itself, determinative of whether something is

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Research Patent Rights under this Agreement.

1.13 "Product(s)" shall mean any products, product component, production supplement and/or process covered by a valid claim of the Licensed Patent Rights in the country where the product is sold and/or that embodies any Licensed Know-How.

1.14 "Research Know-how" shall mean all Know-how conceived, reduced to practice or developed by Licensor in the course of the Research Program, including, but not limited to, (a) novel chemical entities, including but not limited to, building units, starting materials and intermediates, and (b) novel processes, including but not limited to, processes for the preparation of building units, starting materials, intermediates and scaffolds, all as required for the production and synthesis of the scaffolds that are subject matter of this Agreement and all in the best and most efficient manner known at the time of their development.

1.15 "Research Patent Rights" shall mean any United States and/or non-United States patent or patent applications and all substitutions, divisions, continuations, continuations-in-part, reissues, reexaminations and extensions thereof that are owned or otherwise controlled by the Licensor and

that cover the Know-how and/or Research Know-how developed prior to or during the course of the Research Program.

1.14 "Research Program" shall mean the research being funded at Yissum by the Company pursuant to the Research Agreement. "Research Agreement" means the Research Agreement, dated January 10, 2002, between the Company and the Licensor.

1.15 "Territory" shall be worldwide.

1.16 "Valid Claim" means a claim which (a) in the case of an unexpired United States or foreign patent, shall not have expired or been donated to the public, disclaimed, nor held invalid or unenforceable by a court of competent jurisdiction in an unappealed or unappealable decision or (b) in the case of any United States or foreign patent application, shall not have been cancelled, withdrawn, abandoned or been pending for more than five years.

1.17 "Additional Definitions". Each of the following definitions is set forth in the section of this Agreement indicated below:

Definition	Section
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Company	
Effective Date	
FDA	
IND	
Licensor	
Licensor Indemnified Parties	
NDA	
Non-terminating Party	
Shares	
USPTO	
Warrants	

ARTICLE 2 - GRANT

2.1 The Licensor hereby grants to the Company, subject to the terms and conditions of this Agreement, an exclusive or non-exclusive license, in accordance with Appendix I, in the Territory, with the right to grant sublicenses as provided in subparagraph 2.2 below, to practice and utilize the Licensed Patent Rights, and the Licensed Know-how to (a) research and develop products and services solely in the Field of Use, and (b) to register, make, have made, lease, use, import, market, have marketed, and/or sell or have sold products and services solely in the Field of Use.

2.2 The Company shall have the right to grant sublicenses to third parties under the license granted in subparagraph 2.1, above, in accordance with the terms set out herein. In respect of the Non-exclusive Know-how and the Non-exclusive Patent Rights, the license herein shall be limited to the use in respect of Products or as contemplated in scope of the Research Program. Within 30 days after execution or receipt thereof, as applicable, the Company shall provide the Licensor with a copy of each sublicense issued hereunder and shall deliver copies of all royalty reports received by the Company from such sublicensees. Any such license delivered hereunder may be redacted at the request of the sublicensee to exclude confidential scientific and other information, provided that all financial terms and information that relate to the Company's financial obligations hereunder shall not be redacted.

2.3 Any and all sublicenses granted by the Company shall survive termination of this Agreement in accordance with the terms hereof, and the Company shall assign to the Licensor all of its rights in such sub-licenses provided that, to the extent permitted by law, the Licensor shall assume the rights and obligations of the Company with respect to such sub-licensee.

2.4 All rights in the Licensed Patent Rights, the Licensed Know-how and the Products shall be solely owned by the Licensor, and the Company shall make use of them solely in accordance with the terms of this Agreement.

2.5 The Licensor agrees that it shall not grant any right or license in connection with the Non-exclusive Know-how and/or Non-exclusive Patent Rights that would limit, in any manner, the Company's freedom to exercise the rights it has pursuant to this Agreement to practice and utilize the Licensed Patent Rights and the Licensed Know-how subject to the terms of this Agreement.

ARTICLE 3 - ROYALTIES AND OTHER CONSIDERATION

3.1 Subject to the terms and conditions of this Agreement, in consideration of the rights, privileges and license granted hereunder, the Company shall make payments to the Licensor as set forth in, and in accordance with the provisions of, this Article 3.

3.2 The Company shall pay to the Licensor and/or its representatives a non-refundable quarterly royalty in an amount equal to [**] percent ([**]%) of Net Sales.

3.3 The Company shall pay to the Licensor non-refundable quarterly royalties in an

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amount equal to (a) [**] percent ([**]%) of the royalties received by the Company or its Affiliates in connection with [**] up to the first \$[**]; and (b) [**] percent ([**]%) of all royalties received by the Company or its Affiliates in excess of \$[**] from the [**]. In addition, the Company shall pay to the Licensor an amount equal to [**] percent ([**]%) of [**] received by the Company or its Affiliates in connection with [**]. For the purpose of this paragraph 3.3, "royalties" and "lump-sum payments" shall mean any payments or benefits or other consideration received by the Company or an Affiliate from sublicensees or in connection with any sublicenses and/or on account of sale of the Products by a sublicensee, provided, however, that the Company shall not be obligated to make any payment to Licensor on account (c) of any payment or benefit received by the Company or an Affiliate from a sublicensee in the form of a grant to further research and development and/or clinical trials; or (d) for any purchase of debt or equity securities of the Company or its Affiliates, provided that such debt or equity securities are purchased at or above their market value at the time of purchase.

3.4 The royalties payable under subparagraphs 3.2 and 3.3, above, shall be paid on a country-by-country basis on each Product until the later of (i) the expiration of all Valid Claims of any Licensed Patent Rights and Research Patent Rights which cover such Product in such country, or (ii) [**] years after the First Commercial Sale of such Product in such country, provided that after the expiration of all Valid Claims of any Licensed Patent Rights and Research Patent Rights which cover such Product in such country, the royalty rate of such Product in such country shall be reduced to [**] percent ([**]%) of the rate set forth in subparagraphs 3.2, above.

3.5 In addition, the Company shall pay to, or issue to Licensor, as the case may be, the following upon the execution of this Agreement:

3.5.1 [**] dollars (\$[**]) in cash;

3.5.2 Unregistered shares of Keryx common stock with a market value of [**] dollars (\$[**]), as measured by the average closing price of Keryx common stock on the Nasdaq National Market during the sixty (60) trading days preceding Effective Date (the "Shares"). Such Shares will be issued subject to the Company's receipt of an Investment Letter from the Licensor, a copy of which is annexed to this Agreement as Appendix II. The Company

agrees that, subject to the terms of the Registration Rights Agreement, a copy of which is annexed to this Agreement as Appendix III, it will file a registration statement with the United States Securities and Exchange Commission to effect the registration of such Shares no earlier than six (6) months after the Effective Date and no later than one (1) year after the Effective Date at no cost to the Licensor and will use its best efforts to have such registration statement declared effective.

3.5.3 Warrants to purchase an aggregate of [**] shares of Keryx common stock, exercisable at a price equal to the lower of (i) the closing price of Keryx common stock on the Nasdaq stock exchange on the trading day immediately preceding the Effective Date; or (ii) the average closing price of Keryx common stock on the Nasdaq stock exchange during the sixty (60) trading days preceding the Effective Date (the "Warrants"). The number and exercise price of the Warrants will be adjusted in the event of subdivision or any other split of the share capital of the Company. The Warrants shall have a term of ten (10) years and shall

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become exercisable as follows:

- (a) Warrants to purchase [**] shares shall become exercisable upon the issuance by the United States Patent and Trademark Office ("USPTO") of the first patent arising from the invention described in the patent application described in Appendix I after the execution of this Agreement;
- (b) Warrants to purchase [**] shares shall become exercisable upon the commencement of a clinical trial of the first Product, following the filing of an Investigational New Drug Application or any successor application or procedure or its foreign equivalent ("IND") submitted to the United States Food and Drug Administration ("FDA") or its foreign equivalent;
- (c) Warrants to purchase [**] shares shall become exercisable upon the written approval of the first New Drug Application or any successor application or procedure or its foreign equivalent ("NDA") for a Product by the FDA or its foreign equivalent; and
- (d) Warrants to purchase [**] shares shall become exercisable upon the commencement of a clinical trial of the second Product, following the filing of an IND submitted to the FDA or its foreign equivalent.

The Company shall file a registration statement covering the relevant portion of the shares underlying the Warrants within sixty (60) days of the date the first Warrant becomes exercisable.

ARTICLE 4 - REPORTS, PAYMENTS AND RECORDS

4.1 The Company agrees to update the Licensor at least semi-annually as to the Company's activities related to the Products, including without limitation the following: (a) the results of any research and development of the Products conducted by the Company and (b) the Company's efforts to attain approval from relevant regulatory bodies to market and sell the Products and (c) the accumulated amount spent in the development of products.

4.2 The Company shall keep full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to the Licensor by way of royalty as aforesaid. Said books of account shall be kept at the Company's principal place of business and the supporting data shall be open once per year upon reasonable notice to the Company, for three years following the end of the calendar year to which they pertain, for inspection by an auditor selected by the Licensor, except one to whom the Company has reasonable objection, for the purpose of verifying the

Company's royalty statement or compliance in other respects with this License Agreement. If an inspection shows an underreporting or underpayment of five percent (5%) of royalties payable for any twelve (12) month period, then the Company shall reimburse the Licensor for the reasonable cost of the inspection at the time the Company pays the unreported royalties, including any late charges as required by paragraph 4.5 of this Agreement. All payments for underreporting or underpayment required pursuant to this paragraph shall be due within 60 days of the date the Licensor provides the Company notice of the payment due.

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4.3 Beginning in the calendar quarter subsequent to the First Commercial Sale or first lump sum payment by sublicense of a Product, the Company shall deliver to the Licensor complete and accurate reports, within 60 days from the end of each calendar quarter, giving such particulars of the business conducted by the Company during the preceding quarter under this Agreement as shall be pertinent to a royalty accounting hereunder. These reports shall include at least the following:

4.3.1 All Products used, or sold, by or for the Company, its Affiliates or any sublicensees.

4.3.2 Total amounts invoiced for Products used, or sold, by or for the Company, its Affiliates or any sublicensees.

4.3.3 Deductions applicable in computing Net Sales.

4.3.4 Total royalties due based on Net Sales by or for the Company, its Affiliates or any sublicensee.

4.3.5 Any receipt of lump-sum payment from a sublicensee.

4.3.6 Names and addresses of all sublicensees and Affiliates of the Company.

4.3.7 On an annual basis, the Company's year-end audited financial statements, which shall be delivered within 120 days after the end of each fiscal year.

4.4 With each such quarterly report submitted, the Company shall pay to the Licensor the amounts due and payable under this Agreement in connection with the royalties and lump-sum payments it has received from its sublicensees. If, subsequent to the first sale of a Product or receipt of a lump-sum payment, no royalties shall be due, the Company shall so report.

4.5 Sales and royalty payments shall be calculated and, in the case of royalty payments, paid in United States dollars. With respect to sales of products invoiced in a currency other than U.S. Dollars, the U.S. Dollar equivalent shall be calculated using the applicable conversion rates for buying United States dollars published by The Wall Street Journal on the last business day of the calendar quarter to which the royalty report relates. Payment of Value Added Tax, if applicable and charged, shall be deducted from each payment in accordance with the statutory rate in force at such time.

4.6 Amounts that are not paid when due and that are not the subject of a bona fide dispute shall accrue interest from the due date for payment until the actual date of payment at the maximum rate of interest equal to the higher of the London Interbank Offering Rate of interest plus two percent (2%), as reported by Bank Leumi LeYisrael Ltd. for the applicable period, or the highest rate permitted by applicable law, calculated on the number of days such payment is delinquent.

4.7. Within 30 days from the presentation of an appropriate invoice by Licensor, the Company will pay the Licensor the amounts expended on account of

any patent applications filed or to be filed as part of the Patent Rights until the execution of this

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Agreement, up to a maximum of [**] dollars (\$[**]).

ARTICLE 5 - DEVELOPMENT AND COMMERCIALIZATION

5.1 The Company shall use commercially reasonable efforts, comparable to the level of efforts it devotes to its own products under development with comparable market potential, to bring Products to market through a development program of commercial exploitation of the Licensed Patent Rights and Licensed Know-how, including such efforts to achieve the milestones set forth in section 3.6.3, above, within a reasonable time period. The Company shall be responsible for detailing such efforts made pursuant to this section in the reports required to be provided to Licensor as set forth in section 4.1, above. The parties agree that "commercially reasonable efforts," as such term is used in this Article, shall be determined as if the Products were the only Products being developed at the time by the Company.

5.2 The Company shall give Licensor written notice of the First Commercial Sale of a Product with thirty (30) days thereof.

5.3 As part of its efforts pursuant to this section, the Company agrees that it will invest at least [**] dollars (\$[**]) within the first thirty (30) months after the Effective Date in connection with its internal efforts to develop and commercialize the Products, which such expenditure shall include purchase and or lease of capital equipment related to the development and/or commercialization of the Products. This section shall be considered a fundamental term of the Agreement and the breach thereof shall be considered a fundamental breach of the Agreement in accordance with the Contract Law (Remedies) 1970.

ARTICLE 6 - PATENT PROSECUTION AND MAINTENANCE

6.1 The Company shall have the exclusive option and right to prosecute and maintain the Licensed Patent Rights, including, but not limited to, the filing of patent applications for inventions and improvements to the Licensed Patent Rights, based upon inventions or improvements discovered by the Licensor pursuant to the Research Program or by the Company. The Company agrees to keep the Licensor informed with respect to the status and progress of any such applications, prosecutions and maintenance activities and to consult in good faith with the Licensor and take into account the Licensor's comments and requests with respect thereto. Both parties agree to provide reasonable cooperation to each other to facilitate the application and prosecution of Licensed Patent Rights pursuant to this Agreement.

6.2 In the event that Licensor grants a third party a license under the Non-Exclusive Patents Rights, then Licensor shall immediately notify Company of such event. Thereafter, the Company shall have the right, at its election, to continue to prosecute and maintain the Non-Exclusive Patent Rights provided, however, that Licensor shall reimburse Company for all reasonable costs associated with such prosecution and maintenance from the date of the execution of the third party license under the Non-exclusive Patent Rights. Should the Company choose not to continue to prosecute and maintain the Non-exclusive Patent Rights as set forth above, the Licensor shall ensure that it or a third

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party does so at the Licensor's expense.

6.3 The Company may, in its discretion, elect to abandon any patent application or issued patent comprising the Licensed Patents Rights, in which case the Company shall make no further use of such Licensed Patent Rights. Prior to any such abandonment, the Company shall give the Licensor reasonable notice and a reasonable opportunity to take over prosecution of such Licensed Patent Rights. In such event, the Licensor shall have the right, but not the obligation, to commence or continue such prosecution and to maintain any such Licensed Patent Rights under its own control and at its expense and the Company shall then make no further use of any such Licensed Patent Rights and shall have no royalty or other obligation to the Licensor in respect of any Licensed Product, the manufacture, use or sale of which is covered by an issued claim of such Licensed Patent Rights. The Company agrees to cooperate in such activities, including execution of any assignment or other documents necessary to enable the Licensor to obtain and retain sole ownership and control of such Licensed Patent Rights and the License with respect to such Licensed Patent Rights shall be terminated.

6.4 The Company will exert commercially reasonable efforts to attempt to obtain a patent in each of the states and countries of the Territory in which it determines that obtaining a patent is commercially reasonable and will comply with all requirements for making obtaining such patent as aforesaid, in respect of the Licensed Patent Rights and Licensed Know-how and/or Product and/or any part thereof. Each patent application, and every patent to be registered as aforesaid shall be made and registered on behalf of, and in the name of, the Licensor, and at the Company's expense, subject to Licensor's obligations to pay costs for the Non-Exclusive Patent Rights as set forth in subparagraph 6.2, above..

6.5 The foregoing constitutes no assurance by the Licensor or the Company that patent or patent applications will indeed be prepared - and/or filed and/or registered in respect to the Licensed Patent Rights and Licensed Know-how and/or the Product and/or any part thereof, nor shall such constitute an obligation on the part of the Licensor or the Company that a patent application filed or registered as aforesaid will provide due protection.

6.6 For the avoidance of doubt, but subject to Article 12, below, it is hereby expressed that the provisions of this Agreement or Appendix I do not constitute confirmation and/or representation by the Licensor in connection with the validity and/or applicability of any of the patents and/or patent applications detailed in Appendix I, and the Licensor expresses that it made no examination as to the validity of the patents and/or the patent applications as aforesaid before they were submitted for filing or registration.

6.7 The parties shall assist each other in all respects relating to the preparation of documents for the filing or registration of a patent application or any patent-related right upon the other's request.

6.8 The Company shall undertake commercially reasonable efforts, at its own expense, to provide protection against a third-party's infringement of the Licensed Patent Rights and Licensed Know-how and/or the Products and/or any other right therein when, from its own knowledge or upon notice from the Licensor, it becomes aware of the reasonable probability that such infringement exists, and, if such notice was not received from Licensor,

shall advise the Licensor upon learning of the infringement. The Company shall give the Licensor notice of any approach with respect to infringement made to it by a patent examiner and/or attorney in connection with the subject matter of this Agreement. It is agreed that within ninety (90) days of becoming aware of the infringement of the Licensed Patent Rights or Licensed Know-how, the Company shall decide whether to institute an infringement suit or take other appropriate action that it believes is reasonably required to protect the Licensed Patent Rights and Licensed Know-how. If the Company fails to institute such suit or take such action within such ninety (90) day period, then the Licensor shall

have the right at its sole discretion to institute such suit or other appropriate action in the name of either or both parties. In such event, all payment of benefits in judgment or settlement shall be payable to the Licensor and the Company shall cooperate with the Licensor to the extent reasonably possible, including the joining of suit if necessary or desirable.

6.9 In the event of a claim asserting that the Licensed Patent Rights are invalid or nonenforceable, then the Company shall undertake commercially reasonable efforts at its own expense to defend such claim, provided however that the Company shall not settle any such claim in a manner which adversely affects the Licensed Patent Rights without the consent of the Licensor.

6.10 In connection with the Non-exclusive Patent Rights, the obligations of the Company set forth in subparagraphs 6.8 and 6.9, above, shall only apply as long as the Licensor has not licensed the Non-exclusive Patent Rights to a third party. The obligations set forth in subparagraphs 6.8 and 6.9, above, shall belong to the Licensor from the date of the execution of the third party license under the Non-exclusive Patent Rights.

6.11 The Company may deduct an amount equal to up to [**] percent ([**]%) of the royalties it is required to pay the Licensor on Net Sales attributable to a particular country up to cover any litigation costs incurred by the Company in such country for any litigation or threatened litigation contemplated by this Article and all amounts paid in judgment or settlement of such litigation or threatened litigation (the "Patent Litigation Set-off") up to a maximum of [**] percent ([**]%) of the total litigation costs or settlement in such country. If such Patent Litigation Set-Off does not cover [**] percent ([**]%) of the total litigation costs or settlement in such country, the Company shall be entitled to continue to deduct such Patent Litigation Set-off from future royalty payments attributable to such country until such [**] percent ([**]%) is reached.

6.12 Any recovery of damages by the Company, in any such suit, shall be applied first in satisfaction of any unreimbursed expenses and legal fees of the Company relating to the suit and then to the Licensor for any royalties credited in accordance with paragraph 6.9, above. Any amount remaining after distribution according to the previous sentence shall be paid entirely to the Company, provided that the Company shall pay the Licensor a royalty in the amount of [**] percent ([**]%) on such excess recovery.

6.13 In any suit to enforce and/or defend the Licensed Patent Rights and/or Licensed Know-how pursuant to this Agreement, the party not in control of such suit shall, at the request and expense of the controlling party, cooperate in all respects and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.

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ARTICLE 7 - TERM AND TERMINATION

7.1 Unless otherwise terminated by operation of law or by the acts of parties in accordance with the provisions of this Agreement, this Agreement shall be in force from the Effective Date and shall remain in effect until the expiration of all of the obligations to pay royalties set forth in Section 3. Upon the expiration of the Company's obligations to pay royalties to Licensor under Section 3 with respect to a Product in each country, the licenses set forth in Section 2 shall be deemed to be perpetual and fully paid up with respect to such Product in such country.

7.2 Without prejudice to its rights at law or pursuant to this Agreement, the Company may terminate this Agreement by giving written notice to the Licensor:

7.2.1 If an independent search conducted by or on behalf of the Company reveals, within two (2) months of the Effective Date one or more

prior art publications that would render the invention described in the Patent Rights unpatentable.

7.2.2 At any time, should the Company be informed by either the United States Patent and Trademark Office or the European Patent Office that the patent application set forth in Appendix I will not be allowed to mature into a patent and the Company, after using commercially reasonable efforts to obtain the issuance of the patent, determines in good faith to cease its prosecution efforts.

7.3 Without prejudice to either party's rights at law or pursuant to this Agreement, either party may terminate this Agreement by giving written notice to the Licensor (the "Non-terminating Party") in any of the following cases:

7.3.1 A receiver or liquidator is appointed for a Non-terminating Party or if the Non-terminating Party passes a resolution for voluntary winding up, or a winding up application is made against the Non-terminating Party; or

7.3.2 There shall be commenced against the Non-terminating Party any case, proceeding or action seeking issuance of a warrant of attachment, execution, distraint or similar process against a material portion of the Non-terminating Party's assets which results in the entry of an order for such relief which shall not have been vacated, discharged or stayed or bonded pending appeal within one hundred and eighty (180) days from the entry of such order; or

7.3.3 Upon sixty (60) days written notice that the Non-terminating Party has materially breached its obligations provided that the Non-terminating Party has not cured such breach prior to the effectiveness of such notice.

7.4 The Company shall have the right at any time to terminate this Agreement by giving 60 days notice thereof in writing to the Licensor.

7.5 Consequences of Termination

7.5.1 Upon termination of this Agreement by the Licensor as a result of the causes set forth in subparagraphs 7.3.3, or termination by the Company pursuant to Section

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7.4 above, the license rights set forth in Section 2 shall terminate and the Company shall have no future rights to the Licensed Patent Rights and Licensed Know-how, granted hereunder, and shall make no further use thereof, including the manufacture, use or sale of Products, except as otherwise set forth in paragraph 7.6, below.. The Company shall return to the Licensor all material relating to the Licensed Patent Rights and the Licensed Know-how, within thirty (30) days of the effective date of termination, and may make no further use of such material. The Company shall take the necessary steps to assign its rights in any sublicense agreement to the Licensor in accordance with subparagraph 2.2.2, above.

7.5.2 Upon termination of this Agreement by the Licensor as a result of the causes set forth in subparagraphs 7.3.1 and 7.3.2, above, or by the Company as a result of the causes set forth in subparagraphs 7.3.1, 7.3.2, and/or 7.3.3, above, the Company shall continue to have full rights to the Licensed Patent Rights, Licensed Know-how, and the Research granted hereunder, and shall be free to continue to make further use thereof, including the manufacture, use, sublicense and/or sale of Products, provided that it, as far as is practicable, continues to meet its financial obligations to the Licensor or its successors in interest hereunder.

7.5.3 (a) In the event of termination of this Agreement by the Company

as a result of the causes set forth in subparagraph 7.2.1, above, the Licensor shall immediately return to the Company any and all consideration paid or issued to the Licensor as set forth in subparagraph 3.5, above, and the license rights set forth in Section 2 shall terminate and the Company shall have no further rights to the Licensed Patent Rights and Licensed Know-how granted hereunder, and shall make no further use thereof, including the manufacture, use or sale of Products. Moreover, the Company shall have the right to immediately terminate the Research Agreement pursuant to paragraph 11(d) of that agreement. The Company shall return to the Licensor all material relating to the Licensed Patent Rights and the Licensed Know-how, within thirty (30) days of the effective date of termination, and may make no further use of such material.

(b) In the event of termination of this Agreement by the Company as a result of the causes set forth in subparagraph 7.2.2, above, the license rights set forth in Section 2 shall terminate and the Company shall have no further rights to the Licensed Patent Rights and Licensed Know-how granted hereunder, and shall make no further use thereof, including the manufacture, use or sale of Products, except as otherwise set forth in paragraph 7.6 below. Moreover, the Company shall have the right to immediately terminate the Research Agreement pursuant to paragraph 11(d) of that agreement. The Company shall return to the Licensor all material relating to the Licensed Patent Rights and the Licensed Know-how, within thirty (30) days of the effective date of termination, and may make no further use of such material.

7.6 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination or obligations under Articles 3, 4, 8, 9, and 11. However, the Company, provided that the Agreement was terminated pursuant to subparagraph 7.2.2, above, or as a result of the Licensor's material breach, may at any time after the effective date of such termination and continuing for a period not to exceed six (6) months thereafter, sell all completed Products, and any Products in the process of manufacture at the time of such

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termination, and sell the same, provided that the Company shall pay or cause to be paid to the Licensor the royalties thereon as required by Article 3 of this License Agreement and shall submit the reports required by Article 4 hereof on the sales of Products.

7.7 The termination of this Agreement, for whatever reason, shall have the effect of terminating the Research Agreement.

ARTICLE 8 - LIABILITY AND INDEMNITY

8.1 The Company agrees to defend the Licensor and its Affiliates at its cost and expense, and will indemnify and hold the Licensor and its Affiliates and their respective directors, officers, employees and agents (the "Licensor Indemnified Parties") harmless from and against any losses, costs, damages, fees or expenses arising out of a claim relating to (i) any breach by the Company of any of its representations, warranties or obligations pursuant to this Agreement or (ii) personal injury from the development, manufacture, use, sale or other disposition of any Product offered by the Company and/or its licensees or collaborators. In the event of any such claim against the Licensor Indemnified Parties by any third party, the Licensor shall promptly notify the Company in writing of the claim and the Company shall manage and control, at its sole expense, the defense of the claim and its settlement. The Licensor Indemnified Parties shall cooperate with the Company and may, at their option and expense, be represented in any such action or proceeding. The Company shall not be liable for any litigation costs or expenses incurred by the Licensor Indemnified Parties without the Company's prior written authorization. In addition, the Company shall not be responsible for the indemnification of any Licensor

Indemnified Party arising from any grossly negligent, reckless, willful or intentional acts by such party, or as a result of any settlement or compromise by the Licensor Indemnified Parties without the Company's prior written consent.

8.2 The Licensor agrees to defend the Company and its Affiliates at its costs and expense, and will indemnify and hold the Company and its Affiliates and their respective directors, officers, employees and agents (the "Company Indemnified Parties") harmless from and against any losses, costs, damages, fees or expenses arising out of any claim relating to any breach by the Licensor of any of its representations, warranties or obligations pursuant to this Agreement. In the event of any claim against the Company Indemnified Parties by any third party, the Company shall promptly notify the Licensor in writing of the claim and the Licensor shall manage and control, at its sole expense, the defense of the claim and settlement. The Company Indemnified Parties shall cooperate with the Licensor and may, at their option and expense, be represented in any such action or proceeding. The Licensor shall not be liable for any litigation costs or expenses incurred by the Company Indemnified Parties without the Licensor's prior written authorization. In addition, the Licensor shall not be responsible for the indemnification of any Company Indemnified Party arising from any grossly negligent, reckless, willful or intentional acts by such party, or as the result of any settlement or compromise by the Company Indemnified Parties without the Licensor's prior written consent.

8.3 By the time that a Product shall be commercially distributed or sold by the Company, Affiliate or a sub-licensee, the Company shall have procured and shall maintain, at its sole expense, comprehensive general liability insurance in commercially reasonable

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amounts, which amounts shall not be construed to create a limit of the Company's liability with respect to its indemnification under this Agreement. Such comprehensive general liability insurance shall provide product liability coverage. The Company shall provide Licensor with written evidence of such insurance upon request of Licensor. The Company shall provide Licensor with written notice at least fifteen days prior to the cancellation, non-renewal or material change in such insurance. If the Company does not obtain replacement insurance providing comparable coverage within sixty (60) days from the cancellation of such insurance, Licensor shall have the right to terminate this Agreement effective at the end of such sixty (60) day period without notice or any additional waiting periods.

ARTICLE 9 - ARBITRATION

9.1 Any dispute arising from or relating to this Agreement shall be determined by valid and binding arbitration in Jerusalem, Israel, in accordance with the substantive law of the State of Israel. Such arbitration shall be conducted by one (1) arbitrator, jointly selected by the parties. Should the parties be unable to select an arbitrator within thirty (30) days of the giving of a notice of arbitration, the arbitrator shall be selected by the President of the Israel Bar Association upon application from either party. The arbitrators shall not be bound by the civil procedure and evidence laws of the State of Israel, but shall be required to rule in accordance with its substantive laws and to give, in writing, grounds for his/her decision.

9.2 The costs of such arbitration shall be borne proportionate to the finding of fault as determined by the Arbitrators. Any court of competent jurisdiction may enter judgment on the arbitration award.

9.3 Execution of this Agreement by the parties shall constitute the execution of an arbitration deed.

ARTICLE 10 - PUBLICATIONS

10.1 The parties declare that they encourage scientific publications in

general and consider publications encompassing the subject matter of this Agreement and the Research Agreement an asset to the Company. The Company is aware that Prof. Haim Gilon (the "Inventor") and his students strive to publish their research and the students' success and advancement in the field are based on publishing their research.

10.2 The Licensor shall ensure that written publications or oral disclosures relating to the Invention, the Patent Rights, the Know-how, the Products and any patent applications thereof that are subject to the terms of this Agreement and/or the Research Agreement are not published by it, its officers, employees, representatives or agents without the prior written permission of the Company. The Company undertakes to reply to a request from the Licensor to publish such information within thirty (30) days of receiving the request. The Company may refuse such request only upon reasonable grounds stated in writing.

10.3 Should the Company decide not to allow publication pursuant to a request made by the Licensor for reasons which in the Licensor's opinion are unreasonable, publication shall be postponed for a period of three months from the time the Licensor gives further written notice of its intent to publish despite the Company's objection. Such three-month period is (a) to allow the Company to file the appropriate patent application; and/or (b)

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to allow the Company to submit the dispute over publication to an arbitrator pursuant to the procedure set forth in Section 9, above. Notwithstanding the foregoing, should the Company's patent attorney determine, in good faith, that the appropriate patent application would take longer than three months to present, the waiting period shall be extended to six months.

10.4 The provisions of this Article shall not prejudice any other right that either party has pursuant to this Agreement and the applicable law.

ARTICLE 11 CONFIDENTIALITY

11.1 The Company and the Licensor warrant and agree that during the term of this Agreement and subsequent thereto, all Confidential Information disclosed by one party to the other party shall (a) not be used by the receiving party except in connection with the activities contemplated herein and by the Research Agreement, (b) be maintained in confidence by the receiving party and (c) shall not be disclosed by the receiving party to any other person, firm or agency, governmental or private, without the prior written consent of the party disclosing such Confidential Information.

11.2 The obligation contained in subparagraph 11.1 shall not apply to information which is:

11.2.1 In the possession of the receiving party prior to disclosure by the disclosing party; or

11.2.2 Received by the receiving party from a third party rightfully in possession of the same and having the right to disclose the same; or

11.2.3 Now or hereafter in the public domain through no fault of the receiving party; or

11.2.4 Required to be disclosed by legal, administrative or judicial process; provided that, the receiving party provides prior written notice of such disclosure to the disclosing party and takes reasonable and lawful actions to avoid and/or minimize the degree of such disclosure; or

11.2.5 Approved in writing for public release by the disclosing party, above.

11.3 The Company and the Licensor each agree that they shall provide Confidential Information received from the other party only to their respective employees, consultants and advisors, and to the employees, consultants and advisors of such party's Affiliates, who have a need to know and have an obligation to treat such information and materials as confidential.

11.4 The expiration or termination of this Agreement shall not release either party from its obligations pursuant to this clause, including the sub-clause hereof.

ARTICLE 12 - REPRESENTATIONS AND WARRANTIES

12.1 The Company and the Licensor each represents and warrants to the other

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that as of the Effective Date it has full right, power and authority to enter into this Agreement and to perform its respective obligations under this Agreement. The Licensor represents and warrants to the Company that it has the full power, authority and right to grant to the Company the licenses granted pursuant to this Agreement, that it has, as of the Effective Date, access to and right to use the technology necessary to perform its obligations hereunder, and it has not granted to any third party any right which would conflict with the rights granted by it to the Company hereunder.

12.2 The Company and the Licensor each represents and warrants that all necessary consents, approvals and authorizations of all government authorities and other persons required to be obtained by such Party in connection with execution, delivery and performance of this Agreement have been and shall be obtained.

12.3 The Company and the Licensor each represents and warrants that notwithstanding anything to the contrary in this Agreement, the execution and delivery of this Agreement and the performance of such party's obligations hereunder (a) do not conflict with or violate any requirement of applicable laws or regulations and (b) do not and will not conflict with, violate or breach or constitute a default or require any consent under, any contractual obligations of such party, except such consents as shall have been obtained prior to the Effective Date.

12.4 The Company and the Licensor each represents and warrants that all of its employees, officers, and consultants who are connected in any way to the subject matter of this Agreement and/or the Research Program have executed agreements or have existing obligations under law requiring, in the case of employees and officers, assignment to such party of all inventions made during the course of and as the result of their association with such party and obligating the individual to maintain as confidential such party's Confidential Information as well as confidential information of a third party which such party may receive, to the extent required to support such party's obligations under this Agreement.

12.5 To the best of Licensor's knowledge and belief, Licensor has all right, title, and interest in and to the Patent Rights and Know-How, including exclusive, absolute, irrevocable right, title and interest thereto, free and clear of all liens, charges, encumbrances or other restrictions or limitations of any kind whatsoever. Moreover, to the best of Licensor's knowledge and belief, there is no claim, pending or threatened, of infringement, interference or invalidity regarding any part or all of the Patent Rights and Know-how or the Products as presently contemplated, and the Licensor is not aware of any licenses, restrictions, liens, rights of third-parties, disputes, royalty obligations, proceedings or claims relating to, affecting or limiting its rights or the rights of the Company under this Agreement with respect to, or which may lead to a claim of infringement or invalidity regarding the Patent Rights and/or Product as presently contemplated.

12.6 Except as otherwise expressly set forth herein or in the Research Agreement, the parties make no representations and extend no warranties of any kind, either express or implied, and particularly that products will be successfully developed hereunder, and if developed, will have commercial utility or merchantability or fitness for a particular purpose.

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ARTICLE 13 - NOTICES AND OTHER COMMUNICATIONS

All notices or communications made pursuant to this Agreement shall be in writing and sent by certified first class mail, postage prepaid, by hand delivery or by facsimile, if confirmed in writing, at the addresses below or as otherwise designated by written notice given to the other party:

In the case of the Licensor:

Yissum Research Development Company of the
Hebrew University of Jerusalem
POB 4279
46 Jabotinsky Street
Jerusalem
Attention: Reuven Ron
Tel: 011-972-2-566-1540
Fax: 011-972-2-566-0331

In the case of the Company:

Keryx Biopharmaceuticals, Inc.
7 Hartom Street
P.O. Box 23706
Jerusalem, Israel 91236
Attn: General Counsel
Tel: 011-972-2-541-3500
Fax: 011-972-2-541-3501

or such other address furnished in writing by one party to the other. Any notice sent as aforesaid shall be deemed to have been received four days after being posted by registered mail or one day after personal service, as the case may be.

ARTICLE 14 - MISCELLANEOUS PROVISIONS

14.1 It is hereby agreed and declared between the parties that each of the parties shall act in all respects relating to this Agreement as an independent contractor and there neither is nor shall be any master and servant or principle and agent relationship and/or partnership in the relationship between the Company, on one hand, and the Licensor and/or any of its employees and/or any person or entity connected with it, on the other.

14.2 This Agreement and the rights and duties appertaining hereto may not be assigned by either party without first obtaining the written consent of the other, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, the Company may assign this Agreement to a purchaser, merging or consolidating corporation, or acquiror of more than fifty percent (50%) of all of the Company's assets or business. Notwithstanding the foregoing, either party may assign its rights (but not its obligations) pursuant to this Agreement in whole or part to an Affiliate.

14.3 This Agreement embodies the entire understanding of the parties and shall supersede all previous communications, representations or understandings, either oral or

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written, between the parties relating to the subject matter hereof. The parties acknowledge that this Agreement, including the Appendices and documents incorporated by reference, sets forth the entire agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change of modification except by the execution of a written instrument subscribed to by the parties.

14.4 The provisions of this Agreement are severable, and in the event that any provision of this Agreement shall be determined to be invalid or unenforceable under any controlling body of law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.

14.5 The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

14.6 The headings of the several articles are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

14.7 This Agreement will not be binding upon the parties until it has been signed below on behalf of each party, in which event, it shall be effective as of the date recited on page one.

14.8 Each party hereto shall be excused from any breach of this Agreement which is proximately caused by governmental regulation, act of war, strike, act of God or other similar circumstance normally deemed outside the control of the parties.

14.9 Each of the Company and the Licensor shall be responsible for their own expenses relating to the preparation and consummation of this Agreement and the agreements and transactions contemplated hereby.

14.10 This Agreement shall be construed and the respective rights of the parties hereto determined according to the substantive laws of the State of Israel notwithstanding the provisions governing conflict of laws under such State of Israel to the contrary, except matters of intellectual property law which shall be determined in accordance with the national property laws relevant to the intellectual property in question.

14.11 This Agreement has been prepared jointly and shall not be strictly construed against any party.

14.12 This Agreement may be executed in counterparts, each of which counterparts, when so executed and delivered, shall be deemed to be an original, and all of which counterparts, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this License Agreement, by proper persons thereunto duly authorized.

COMPANY

LICENSOR

By: /s/ Ira Weinstein

Name: Ira Weinstein
Title: Chief Operating Officer

By: /s/ Elena Canetti

Name: Elena Canetti
Title: VP of Marketing

By: /s/ R. Sherer

Name: R. Sherer

Title: Executive VP

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APPENDIX I

A. EXCLUSIVE PATENT RIGHTS

[**]

B. NON-EXCLUSIVE PATENT RIGHTS

[**]

C. EXCLUSIVE KNOW-HOW

[**], whether in the form of [**] or [**], which are [**] and [**] of the Agreement, [**].

D. NON-EXCLUSIVE KNOW-HOW

1. [**].
2. [**] consisting of a [**] starting from [**] that are [**] and the [**] and [**] that is [**]

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APPENDIX II

INVESTMENT LETTER

Keryx Biopharmaceuticals, Inc.
7 Hartom Street
P.O. Box 23706
Jerusalem, Israel 91236

Dear Sirs:

In order to induce Keryx Biopharmaceuticals, Inc., a Delaware corporation (the "Company"), to issue and sell to the undersigned the number of shares of Common Stock (the "Shares), and the Warrant to purchase the number of shares of Common Stock, (the "Warrant," and together with the Shares, the "Securities") of the Company set forth opposite the undersigned's signature below, the undersigned represents, warrants and covenants as follows:

(a) It is purchasing the Securities for its own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Securities in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.

(b) It has had such opportunity as it has deemed adequate to obtain from representatives of the Company such information as is necessary to permit it to evaluate the merits and risks of its investment in the Company.

(c) It has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Securities and to make an informed investment decision with respect to such purchase.

(d) It can afford a complete loss of the value of the Securities and is able to bear the economic risk of holding such Securities for an indefinite period.

(e) It is an "Accredited Investor," as such term is defined in rule 501 of Regulation D under the Securities Act.

(f) It understands that (i) the Securities have not been registered under the Securities Act and are "Restricted Securities" within the meaning of Rule 144 under the Securities Act, (ii) the Securities cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 or otherwise may not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or

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current intention to register the Securities under the Securities Act.

(g) A legend substantially in the following form will be placed on the certificate representing the securities:

"The Securities represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, transferred or otherwise disposed of in the absence of an effective registration statement under such Act or an opinion of counsel satisfactory to the corporation to the effect that such registration is not required."

Number of Shares: TBD	Very truly yours,
Number of Shares Underlying Warrant: [**]	YISSUM RESEARCH AND DEVELOPMENT
	COMPANY OF THE HEBREW UNIVERSITY OF
	JERUSALEM
Date: _____	By: _____
	Name: _____
	Title: _____

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APPENDIX III

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (the "Agreement") is made as of January 10, 2002 by and between Keryx Biopharmaceuticals, Inc., a Delaware corporation, and Yissum Research Development Company of the Hebrew University of Jerusalem ("Yissum" or the "Holder").

WHEREAS, the Company and the Holder have entered into a License Agreement,

dated the date hereof (the "License Agreement"), pursuant to which the Holder has granted to the Company an exclusive royalty-bearing license to certain of its intellectual property.

WHEREAS, in partial consideration for the grant of such license, the Company has issued to the Holder on the date hereof [**] shares (the "Shares") of its Common Stock, \$0.01 par value per share and warrants ("the Warrants") to purchase [**] shares of its Common Stock, \$0.01 par value per share (such shares to be known as the "Warrant Shares").

WHEREAS, the License Agreement provides that it shall be a requirement of the Holder, in receiving such Shares and Warrants as consideration for the License, that the Company use its best efforts to register the Shares and Warrant Shares.

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereto hereby agree as follows:

ARTICLE 1 - DEFINITIONS. The following terms shall have the meanings provided therefor below or elsewhere in this agreement as described below:

"Board" shall mean the board of directors of the Company.

"Effective Date" shall have the meaning ascribed to such term in the License Agreement.

"Exchange Act" shall mean the Securities Exchange Act of 1934, as amended, and all of the rules and regulations promulgated thereunder.

"Qualifying Holder" shall have the meaning ascribed thereto in Section 12 hereof.

"Registrable Shares" shall mean the Shares, and any shares of capital stock issued in respect of the Shares because of stock splits, stock dividends, reclassifications, recapitalizations or similar events, provided, however, such term shall not, after the Mandatory Share Registration Termination Date (as defined below), apply to the Shares.

"Registrable Warrant Shares" shall mean the Warrant Shares, and any shares of capital stock issued in respect of the Warrant Shares because of stock splits, stock dividends, reclassifications, recapitalizations or similar events, provided, however, such term shall not, after the Mandatory Warrant Share Registration Termination Date (as defined below), apply to the Warrant Shares.

"Rule 144" shall mean Rule 144 promulgated under the Securities Act and any successor or substitute rule, law or provision.

"SEC" shall mean the Securities and Exchange Commission.

"Securities Act" shall mean the Securities Act of 1933, as amended, and all of the rules and regulations promulgated thereunder.

ARTICLE 2 - EFFECTIVENESS; TERMINATION. This agreement shall become effective and legally binding only upon the Effective Date.

ARTICLE 3 - MANDATORY REGISTRATION.

3.1 The Company will prepare and file with the SEC no less than 180 days and no more than 365 days after the date hereof a registration statement on form S-3 (or, if the Company is not then eligible to use a registration statement on form S-3, such other form of registration statement then available to the Company for the registration for resale of the Shares) for the purpose of registering under the securities act all of the registrable shares for resale

by, and for the account of, the Holder (the "Share Registration Statement"). The Share Registration Statement shall permit the Holder to offer and sell, on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, any or all of the Registrable Shares. The Company agrees to use its best efforts to cause the Share Registration Statement to become effective. The Company shall be required to keep the Share Registration Statement effective until such date that is the earlier of (i) the date when all of the Registrable Shares registered thereunder shall have been sold, or (ii) the second anniversary of the Effective Date or (iii) such time as all of the Registrable Shares registered thereunder can be sold within any given three-month period without regard to the trading volume of the common stock pursuant to Rule 144, subject to extension as set forth below (such date is referred to herein as the "Mandatory Share Registration Termination Date "). Thereafter, the Company shall be entitled to withdraw the Share Registration Statement and the Holder shall have no further right to offer or sell any of the Registrable Shares pursuant to the Share Registration Statement (or any prospectus relating thereto).

3.2 The Company will prepare and file with the SEC no more than 60 days after the Vesting Date of the first Warrant granted to the Holder pursuant to paragraph 3.5.3 of the License Agreement a registration statement on form S-3 (or, if the Company is not then eligible to use a registration statement on form S-3, such other form of registration statement then available to the Company for the registration for resale of the Warrant Shares) for the purpose of registering under the Securities Act all of the Registrable Warrant Shares, issuable upon the exercise of the Warrants, for resale by, and for the account of, the Holder (the "Warrant Share Registration Statement"). The Warrant Share Registration Statement shall permit the Holder to offer and sell, on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, any or all of the Registrable Warrant Shares issuable upon the exercise of a vested Warrant. The Company agrees to use its best efforts to cause the Warrant Share Registration Statement to become effective. The Company shall be required to keep the Warrant Share Registration Statement effective until such date that is the earlier of (i) the date when all of the Registrable Warrant Shares registered thereunder shall have been sold, or (ii) such time as all of the Registrable Warrant Shares registered thereunder can be sold within any given three-month period without regard to the trading volume of the common stock pursuant to Rule 144, subject to extension as set forth below (such date is referred to herein as the "Mandatory Warrant Share Registration Termination Date "). Thereafter, the Company shall be entitled to withdraw the Warrant Share Registration Statement and the Holder shall have no further right to offer or sell any of the Registrable Warrant Shares pursuant to such Warrant Share Registration Statement (or any prospectus relating thereto).

ARTICLE 4 - OBLIGATIONS OF THE COMPANY. In connection with the Company's (i) obligation under section 3 hereof to file the Share Registration Statement and Warrant Share Registration Statement with the SEC and to use its best efforts to cause the such registration statements to become effective, and (ii) to cause such registration statements to remain effective until the Mandatory Share Registration Termination Date and/or the Mandatory Warrant Share Registration Termination Dates, the Company shall:

4.14 Prepare, and file with the SEC such amendments and supplements to the Share Registration Statement and Warrant Share Registration Statement, and the prospectuses used in connection therewith, as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all Registrable Shares covered by the Share Registration Statement and all Registrable Warrant Shares covered by the Warrant Share Registration Statement;

4.15 Furnish to the Holder such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents (including, without limitation, prospectus amendments and supplements as are prepared by the Company in accordance with Section 4(a) above) as the Holder may reasonably request in order to facilitate

the disposition of such Holder's Registrable Shares and Registrable Warrant Shares;

4.16 Notify the Holder, at any time when a prospectus relating to the Share Registration Statement and/or Warrant Share Registration Statement is required to be delivered under the Securities Act, of the happening of any event as a result of which the prospectus included in or relating to the Share Registration Statement and/or Warrant Share Registration Statement contains an untrue statement of a material fact or omits any fact necessary to make the statements therein not misleading; and, thereafter, the Company will promptly prepare (and, when completed, give notice to the Holder) a supplement or amendment to such prospectus so that, as thereafter delivered to the purchaser(s) of such Registrable Shares and/or Registrable Warrant Shares, such prospectus will not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein, in light of the circumstances in which they were made, not misleading; provided that upon such notification by the Company, the Holder will not offer or sell Registrable Shares and/or Registrable Warrant Shares under such prospectus until the Company has notified the Holder that it has prepared a supplement or amendment to such prospectus and delivered copies of such supplement or amendment to the Holder;

4.17 Use best efforts to register and qualify the Registrable Shares covered by the Share Registration Statement and Registrable Warrant Shares covered by the Warrant Share Registration Statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably appropriate in the opinion of the Company; provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions; and provided further that (notwithstanding anything in this Agreement to the contrary with respect to the bearing of expenses) if any jurisdiction in which any of such Registrable Shares and/or Registrable Warrant Shares shall be qualified shall require that expenses incurred in connection with the qualification therein of any such Registrable Shares and/or Registrable Warrant Shares be borne by the Holder, then the Holder shall, to the extent required by such

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jurisdiction, pay such qualification expenses;

4.18 Use its best efforts to cause the Registrable Shares covered by the Share Registration Statement and/or Registrable Warrant Shares covered by the Warrant Share Registration Statement to be registered with or approval by the National Association of Securities Dealers, Inc. as may be necessary to enable the Holder to consummate the disposition of such Registrable Shares and/or Registrable Warrant Shares in accordance with the chosen method or methods of distribution;

4.19 Cause all Registrable Shares included in such Share Registration Statement and/or Registrable Warrant Shares included in such Warrant Share Registration Statement to be listed, by the date of first sale of Registrable Shares pursuant to such Share Registration Statement or Registrable Warrant Shares pursuant to such Warrant Share Registration Statement, on the principal securities exchange or automated interdealer system on which the same type of securities of the Company are then listed or traded; and

4.20 Use its best efforts to qualify for registration on Form S-3 or any comparable or successor form or forms.

4.21 The Company shall make available for inspection by a representative of the Holder, and any attorney or accountant retained by the Holder, all financial and other records customary for such purposes, pertinent corporate documents and properties of the Company, and cause the Company's officers, directors and employees to supply all information reasonably requested by any such representative, attorney or accountant in connection with such Share

Registration Statement and/or Warrant Share Registration Statement. The Holder will agree to keep all non-public information supplied to it confidential until such information is included in the Share Registration Statement and/or Registrable Warrant Shares filed with the Commission.

4.22 The Company shall use its best efforts to take all other steps necessary to effect the registration of the Registrable Shares and Registrable Warrant Shares contemplated hereby and to expedite or facilitate the disposition of such Registrable Securities and Registrable Warrant Shares.

ARTICLE 5 - FURNISH INFORMATION. The Holder shall promptly furnish to the Company such information regarding it and the securities held by it as the Company shall reasonably request in writing and as shall be required in order to effect any registration by the Company pursuant to this Agreement.

ARTICLE 6 - EXPENSES OF REGISTRATION. All costs and expenses incurred in connection with the registration of the Registrable Shares and/or Registrable Warrant Shares pursuant to this Agreement (excluding underwriting, brokerage and other selling commissions and discounts and fees and disbursements of counsel for the Holder), including without limitation all registration and qualification and filing fees, printing, and fees and disbursements of counsel for the Company, shall be borne by the Company.

ARTICLE 7 - DELAY OF REGISTRATION. The Holder shall not take any action to enjoin or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or implementation of this agreement.

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ARTICLE 8 - INDEMNIFICATION.

8.14 The Company will indemnify and hold harmless the Holder, any broker/dealer or underwriter acting on behalf of the Holder and each officer and director of the Holder, such broker/dealer or underwriter and each person, if any, who controls the Holder, broker/dealer or underwriter within the meaning of the Securities Act, against any losses, claims, expenses, costs, damages or liabilities, joint or several, to which they may become subject under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any (i) untrue or alleged untrue statement of any material fact contained in the Share Registration Statement and/or Warrant Share Registration Statement, in any preliminary prospectus or final prospectus relating thereto or in any amendments or supplements to the Share Registration Statement and/or Warrant Share Registration Statement or any such preliminary prospectus or final prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading and (ii) violation by the Company of the Securities Act or any state securities law or, in either case, any rule or regulation thereunder applicable to the Company and required to be complied with by the Company in connection with the registration of the Registrable Shares and/or Registrable Warrant Shares; and will reimburse the Holder, such broker/dealer, such underwriter or such officer, director or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this Section 8(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, damage, liability or action to the extent that it arises out of or is based upon an untrue statement or alleged untrue statement or omission made in connection with the Share Registration Statement and/or Warrant Share Registration Statement, any preliminary, prospectus or final prospectus relating thereto or any amendments or supplements to the Share Registration Statement and/or Warrant Share

Registration Statement or any such preliminary prospectus or final prospectus, in reliance upon and in conformity with written information furnished expressly for use in connection with the Share Registration Statement and/or Warrant Share Registration Statement or any such preliminary prospectus or final prospectus by the selling Investors, any underwriter for them or controlling person with respect to them; and provided further, that the indemnity agreement contained in this Section 8(a) shall not apply to statements made in a preliminary prospectus to the extent that those statements were corrected in a later preliminary or final prospectus or supplement or amendment thereto that was supplied to the indemnified party and the indemnified party failed to deliver that later preliminary or final prospectus or amendment or supplement thereto.

8.15 The Holder will indemnify and hold harmless the Company, each of its directors, each of its officers who have signed the Share Registration Statement and/or Warrant Share Registration Statement, each person, if any, who controls the Company within the meaning of the Securities Act, or any broker/dealer or underwriter acting on behalf of the Company or the Holder against any losses, claims, damages or liabilities to which the Company or any such director, officer, controlling person, underwriter, or broker/dealer may become subject to, under the Securities Act or otherwise, insofar as such losses, claims,

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damages or liabilities (or actions in respect thereto) arise out of or are based upon any untrue or alleged untrue statement of any material fact contained in the Share Registration Statement and/or Warrant Share Registration Statement or any such preliminary prospectus, relating thereto or in any amendments or supplements to the Share Registration Statement and/or Warrant Share Registration Statement or any such preliminary prospectus or final prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be or necessary to make the statements therein not misleading, in each case to the extent and only to the extent that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Share Registration Statement and/or Warrant Share Registration Statement, in any preliminary prospectus or final prospectus relating thereto or in any amendments or supplements to the Share Registration Statement and/or Warrant Share Registration Statement or any such preliminary prospectus or final prospectus, in reliance upon and in conformity with written information furnished by the Holder expressly for use in connection with the Share Registration Statement and/or Warrant Share Registration Statement, or any preliminary prospectus or final prospectus; and the Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, broker/dealer, or underwriter in connection with investigating or defending any such loss, claim damage, liability or action, provided, however, that the liability of the Holder hereunder shall be limited to the proceeds (net of underwriting discounts and commissions, if any) received by such the Holder from the sale of Registrable Shares covered by the Share Registration Statement and/or Registrable Warrant Shares covered by the Warrant Share Registration Agreement, and provided, further, however, that the indemnity agreement contained in this Section 8(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the Holder (which consent shall not be unreasonably withheld).

8.16 Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 8, notify the indemnified party in writing of the commencement thereof and the indemnifying party shall have the right to participate in and, to the extent the indemnifying party desires, jointly with any other indemnifying party similarly notified, to assume at its expense the defense thereof with counsel mutually satisfactory to the indemnifying parties with the consent of the indemnified party which consent will not be unreasonably withheld, conditioned or delayed. In the event that the indemnifying party assumes any such defense, the indemnified party may participate in such defense with its own counsel and

at its own expense, provided, however, that the counsel for the indemnifying party shall act as lead counsel in all matters pertaining to such defense or settlement of such claim and the indemnifying party shall only pay for such indemnified party's expenses for the period prior to the date of its participation on such defense. The indemnifying party shall not, in connection with any one such action or proceeding or separate but substantially similar or related actions or proceedings in the same jurisdiction arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of more than one separate firm of attorneys (in addition to any local counsel) at any time for such indemnified party; provided, however, that if separate firm(s) of attorneys are required due to a conflict of interest, then the indemnifying party shall be liable for the reasonable fees and expenses of each such separate firm. The failure to notify an indemnifying party promptly of the commencement of any such action, if materially prejudicial to his ability to defend such action, shall relieve such indemnifying party of any

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liability to the indemnified party under this Section 8, but the omission so to notify the indemnifying party will not relieve him of any liability which he may have to any indemnified party otherwise other than under this Section 8.

8.17 Notwithstanding anything to the contrary herein, the indemnifying party shall not be entitled to settle any claim, suit or proceeding unless in connection with such settlement the indemnified party receives an unconditional release with respect to the subject matter of such claim, suit or proceeding and such settlement does not contain any admission of fault by the indemnified party.

ARTICLE 9 - CONTRIBUTION.

9.14 If the indemnification provided for in Section 8 herein is unavailable to the indemnified parties in respect of any losses, claims, damages or liabilities referred to herein (other than by reason of the exceptions provided therein), then each such indemnifying party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (i) as between the Company on the one hand and the Holder, on the other, in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Holder, on the other, from the offering of the Registrable Shares and/or Registrable Warrant Shares, or if such allocation is not permitted by applicable law, in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and of the Holder, on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations and (ii) as between the Company on the one hand and the Holder on the other, in such proportion as is appropriate to reflect the relative fault of the Company and of the Holder in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations.

9.15 The relative benefits received by the Company on the one hand and the Holder, on the other shall be deemed to be in the same proportion as the value received by the Company from the initial issuance of the Registrable Shares and Registrable Warrant Shares by the Company to the Holder pursuant to the License Agreement bear to the net proceeds received by the Holder from the sale of Registrable Shares pursuant to the Share Registration Statement and Registrable Warrant Shares pursuant to the Warrant Share Registration Statement or the total underwriting discounts and commission received by the underwriters as set forth in the table on the cover page of the prospectus, as the case may be. The relative fault of the Company on the one hand and of the Holder, on the other shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the

Holder.

9.16 In no event shall the obligation of any indemnifying party to contribute under this Section 9 exceed the amount that such indemnifying party would have been obligated to pay by way of indemnification if the indemnification provided for under Section 8 hereof had been available under the circumstances.

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ARTICLE 10 - REPORTS UNDER THE EXCHANGE ACT. With a view to making available to the Holder the benefits of Rule 144 and any other rule or regulation of the SEC that may at any time permit the Holder to sell the Registrable Shares and Registrable Warrant Shares to the public without registration, the Company agrees to (i) to make and keep public information available, as those terms are understood and defined in the general instructions to Form S-3, or any successor or substitute form, and in Rule 144, (ii) use best efforts to file with the SEC in a timely manner all reports and other documents required to be filed by an issuer of securities registered under the Securities Act or the Exchange Act, (iii) as long as the Holder owns any Shares or Warrant Shares, to furnish in writing upon such Holder's request a written statement by the Company that it has complied with the reporting requirements of Rule 144 and of the Securities Act and the Exchange Act, and to furnish to such Holder a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed by the Company as may be reasonably requested in availing such Holder of any rule or regulation of the SEC permitting the selling of any such Shares or Warrant Shares without registration and (iv) undertake any additional actions reasonably necessary to maintain the availability of the Share Registration Statement and Warrant Share Registration Statement or the use of Rule 144.

ARTICLE 11 - DEFERRAL.

11.1 Notwithstanding anything in this Agreement to the contrary, if the Company shall notify the Holder that the Board has made the good faith determination that the Company proposes to effect an underwritten financing of equity securities (an "Underwritten Financing") and the proposed underwriters in that financing have advised the Company that there is a reasonable likelihood that continued sales of Shares or Warrant Shares by the Holder could have a detrimental effect on the terms on which that financing could be completed, then, subject to Section 11.3 below, the right of the Holder to use the Share Registration Statement and/or Warrant Share Registration Statement (and the prospectuses relating thereto) for purposes of effecting offers or sales of Registrable Shares and/or Registrable Warrant Shares pursuant thereto shall be suspended for a period (the "Offering Suspension Period") of not more than 120 days after delivery by the Company of the certificate referred to in this Section 11.1. During the Offering Suspension Period, the Holder shall not offer or sell any Registrable Shares or Registrable Warrant Shares pursuant to or in reliance upon a registration statement (or a prospectus relating thereto).

11.2 Notwithstanding anything in this Agreement to the contrary, if the Company shall notify the Holder that the Board has made a good faith determination that continued use by the Holder of the Share Registration Statement or Warrant Share Registration Statement for purposes of effecting offers or sales of Registrable Shares or Registrable Warrant Shares pursuant thereto would require, under the Securities Act, premature disclosure in such registration statements (or prospectuses relating thereto) of material, nonpublic information concerning the Company, its business or prospects or any proposed material transaction involving the Company, (ii) that such premature disclosure would be materially adverse to the Company, its business or prospects or any such proposed material transaction or would make the successful consummation by the Company of any such material transaction less likely and (iii) that it is therefore essential to suspend the use by the Holder of such registration statements (and the prospectuses relating thereto) for purposes of effecting offers or sales of Registrable Shares and/or Registrable Warrant

Shares pursuant thereto, then the right of the

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Holder to use such registration statements (and the prospectuses relating thereto) for purposes of effecting offers or sales of Registrable Shares and/or Registrable Warrant Shares pursuant thereto shall be suspended for a period (the "Disclosure Suspension Period" and with the Offering Suspension Period, a "Suspension Period") of not more than 60 days after delivery by the Company of the notice referred to in this Section 11.2. During the Disclosure Suspension Period, the Holder shall not offer or sell any Registrable Shares and/or Registrable Warrant Shares pursuant to or in reliance upon such registration statements (or the prospectuses relating thereto).

11.3 Upon the occurrence of any event contemplated by Section 11.2 and immediately upon the expiration of any Disclosure Suspension Period (as defined in Section 11.2), the Company shall prepare, if the occurrence of such event or period requires such preparation, a supplement or post-effective amendment to the Share Registration Statement and/or Warrant Share Registration Statement or related prospectuses or any document incorporated therein by reference or file any other required document so that, as thereafter delivered to the purchasers of the Registrable Shares and/or Registrable Warrant Shares being sold thereunder, such prospectus will not contain an untrue statement of a material fact or omit to state any material fact necessary to make the statements made therein not misleading.

ARTICLE 12 - TRANSFER OF REGISTRATION RIGHTS. None of the rights of the Holder under this Agreement shall be transferred or assigned to any person unless such person agrees to become a party to, and bound by, all of the terms and conditions of this Agreement by duly executing and delivering to the Company an instrument of adherence in the form prescribed by the Company.

ARTICLE 13 - ENTIRE AGREEMENT. This Agreement constitutes and contains the entire agreement and understanding of the parties with respect to the subject matter hereof, and it also supersedes any and all prior negotiations, correspondence, agreements or understandings with respect to the subject matter hereof.

ARTICLE 14 - NO INCONSISTENT AGREEMENTS. The Company has not, as of the date hereof, entered into any agreement which is currently in effect, nor shall the Company on or after the date of this Agreement, enter into any agreement with respect to its securities that is inconsistent with the rights granted to the Holder in this Agreement or otherwise conflicts with the provisions hereof.

ARTICLE 15 - MISCELLANEOUS.

15.1 This Agreement may not be amended, modified or terminated, and no rights or provisions may be waived, except with the written consent of the Holder and the Company; provided that the provisions of Sections 7 and 8 of this Agreement shall survive any termination hereof.

15.2 This Agreement shall be governed by and construed and enforced in accordance with the internal and substantive laws of the State of Delaware and without regard to any conflicts of laws concepts which would apply the substantive law of some other jurisdiction, and shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors or assigns, provided that the terms and conditions of Section 12 hereof are satisfied. This Agreement shall also be binding upon and

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inure to the benefit of any transferee of any of the Shares provided that the terms and conditions of Section 12 hereof are satisfied. Notwithstanding anything in this Agreement to the contrary, if at any time the Holder shall cease to own any Shares or Warrant Shares, all of such Holder's rights under this Agreement shall immediately terminate.

15.3 Any notices, reports or other correspondence (hereinafter collectively referred to as "Correspondence") required or permitted to be given hereunder shall be sent by courier (overnight or same day) or fax or delivered by hand to the party to whom such Correspondence is required or permitted to be given hereunder. The date of giving any notice shall be the date of its actual receipt.

All Correspondence to the Company shall be addressed as follows:

Keryx Biopharmaceuticals, Inc.
7 Hartom Street
P.O. Box 23706
Har Hotzvim
Jerusalem 91236 Israel
Attn: General Counsel

All correspondence to the Holder shall be addressed as follows:

Yissum Research Development Company of the
Hebrew University of Jerusalem
POB 4279
46 Jabotinsky Street
Jerusalem, Israel
Attention: Reuven Ron

15.4 Any entity may change the address to which correspondence to it is to be addressed by notification as provided for herein.

15.5 The parties acknowledge and agree that in the event of any breach of this Agreement, remedies at law may be inadequate, and each of the parties hereto shall be entitled to seek specific performance of the obligations of the other parties hereto and such appropriate injunctive relief as may be granted by a court of competent jurisdiction.

15.6 This Agreement may be executed in a number of counterparts, all of which together shall for all purposes constitute one Agreement, binding on all the parties hereto notwithstanding that all such parties have not signed the same counterpart.

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement as of the date and year first above written.

KERYX BIOPHARMACEUTICALS, INC.

By: _____

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Name: _____

Title: _____

YISSUM RESEARCH DEVELOPMENT
COMPANY OF THE HEBREW

UNIVERSITY OF JERUSALEM

By:

Name:

Title:

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Asterisks denote omissions.

Exhibit 10.9

RESEARCH AGREEMENT

This Research Agreement (the "Agreement") is made as of this 10th day of January, 2002 by and between YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM, 46 Jabotinsky Street, Jerusalem, Israel ("Yissum") of the one part, and KERYX BIOMEDICAL TECHNOLOGIES LTD., 7 Hartom Street, Jerusalem 91236 Israel (the "Company") of the other part.

WHEREAS, the Company's parent, Keryx Biopharmaceuticals, Inc. ("Keryx"), pursuant to the License Agreement of even date herewith, between Keryx and Yissum (the "License Agreement"), is the exclusive licensee of certain rights to certain technology, as set forth in the License Agreement, (the "Inventions") currently under development by Dr. Haim Gilon (the "Inventor") at the Hebrew University of Jerusalem;

WHEREAS, the Company wishes to finance research which is being and may be carried out and conducted in the Hebrew University of Jerusalem and/or any of its branches (the "University") under the supervision of the Inventor, subject to and as detailed in the research program defined below (the "Research Program"); and

WHEREAS, Yissum is the exclusive representative of the University and of the Inventor in all aspects relating to the Research Program and/or this Agreement and all rights whatsoever in the Research Program and/or the results thereof shall belong to Yissum, but subject to the terms and provisions of the License Agreement; and

WHEREAS, the University has the facilities and the personnel with the requisite skills, experience, and knowledge to undertake the Research Program; and

WHEREAS, Yissum agrees to procure the performance of the Research Program in accordance with the terms and conditions of this Agreement below.

NOW, THEREFORE, the parties agree as follows:

1. Recitals and Definitions. The recitals hereto constitute an integral part hereof. In this Agreement the following expressions shall have the meanings appearing alongside them. Capitalized terms used herein that are not defined shall have the meanings given to them in the License Agreement.

(a) "Research" shall mean the research that is being carried out and conducted in the University subject to and as detailed in the Research Program annexed as an integral part of this Agreement as Appendix "A".

(b) "Research Program" shall mean the subject matter of the Research as set forth in Appendix "A".

(c) "Research Results" shall mean the tangible and intangible information arising out of the Research, including, without limitation, any patents, patent applications, information, material, results, devices and any know-how arising therefrom.

(d) "Research Period" shall mean the period set forth in the Research Program for the performance of the Research.

(e) "Agreement" shall mean this agreement together with all the appendices and annexes hereto.

(f) "Consideration" shall mean the amounts set forth in Appendix B.

2. The Research and its Performance

(a) Yisum hereby agrees to procure the performance of the Research in the University, all as provided below in this Agreement.

(b) Yisum shall procure the conduct of the Research in accordance with the Research Program during the Research Period and in accordance with the other terms and conditions as provided in Appendix "A". The Company is entitled to request that Yisum add to or introduce changes in the Research during the course of the performance of the Research, provided that such additions or changes are coordinated a reasonable time in advance and also provided that in the event such additions or changes result in increased expenses to the Inventor the Consideration is adjusted to the reasonable satisfaction of Yisum.

(c) The Research Program shall contain agreed-upon research milestones ("Milestones"). The time set forth in the Research Program to achieve the Milestones shall only begin upon the delivery to the Inventor of the necessary equipment. The description of each Milestone in the Research Program shall be accompanied by a list of the necessary equipment. The Company and the Inventor shall meet at least once every three (3) months from the execution of this Agreement to review the progress towards the attainment of the Milestones.

(d) Upon the expiration of the Research Term, this Agreement may be extended for additional one-hundred-eighty (180) day periods upon the mutual written agreement of the parties, provided the parties shall have reached an agreement regarding the amount of financing the Company shall pay to Yisum for the extended period or periods.

(e) On a quarterly basis, commencing at the end of the first full calendar quarter after the commencement of the Research, and upon the expiration of the Research Period or of the extended period, Yisum shall give the Company a report detailing the results and conclusions of the Research (hereinafter referred to as the "Scientific Report"). For the avoidance of doubt, it is hereby expressed that the Agreement in general and this clause in particular shall not constitute an obligation and/or confirmation on the part of Yisum that any results and/or conclusions will be achieved in consequence of the performance of the Research and/or that a Product may be developed as a result thereof.

(f) The Company may at any time during the Research Period obtain any information relating to the Research's performance from Yisum, including plans and documents relating thereto. The Company's representative may attend the site where the Research is being carried out.

(g) In addition to the performance of the Research Program, the Inventor shall train, in his laboratory, an employee of the Company. The Company shall be responsible for all expenses, including, but not limited to, salary and social benefits, of such employee/trainee during the period of his/her training.

3. Improvements and Patent Rights. It is recognized and understood that certain existing Inventions and technologies are the separate property of the Company and/or Keryx or Yisum and are not affected by this Agreement, and neither Party shall have any claims to

or rights in such separate inventions and/or technologies. Any Research Know-how or Research Patent Rights shall be promptly disclosed in writing to the Company, but in no event shall disclosure of such Research Know-how or Research Patent

Rights by Yissum, the Inventor or other researcher be made to any third party unless in accordance with this paragraph 3; provided, however, that title to any new Research Know-how or Research Patent Rights resulting from the Research shall be in Yissum. Inventorship of such Research Know-how or Research Patent Rights shall be determined in accordance with patent law. To the extent that Yissum owns the rights of sole or joint inventorship of such Research Know-how or Research Patent Rights, Keryx is hereby granted, without further consideration, an exclusive right and license to any Research Know-how or Research Patent Rights upon the terms and conditions set forth in the License Agreement and such Research Know-how or Research Patent Rights shall be included as a part of the Licensed Patent Rights thereof.

4. Patent Prosecution. Any patents and/or patent applications arising out of the Research or contained in the Research Results shall be diligently prosecuted in accordance with Article VI of the License Agreement.

5. Finance of the Research

(a) In consideration for the performance of the Research and in order to finance it, the Company undertakes to pay, or procure its subsidiary, if any, to pay to Yissum the Consideration detailed in the appendix annexed hereto as an integral part hereof and marked as Appendix B.

(b) It is agreed between the parties that the provisions of this Agreement shall not prevent Yissum, the University and/or the Inventor from obtaining gifts, grants, donations or other charitable contributions from other entities for the Research, provided that no rights, commercial, financial or otherwise, shall be granted to such other entities in the Licensed Patent Rights and Licensed Know-how.

(c) Should the Research Period be extended as detailed in clause 2(c) above or for any other reason as agreed to between the parties, the parties shall determine by agreement the supplemental finance for the period of the extension and such fee shall be added to the Consideration. The terms and conditions of this Agreement shall apply, mutatis mutandis, to the supplemental Consideration.

(d) On a quarterly basis, commencing at the end of the first full calendar quarter after the commencement of the Research, Yissum shall submit to the Company a report of expenses relating to the Research (hereinafter referred to as the "Expense Report"). The Expense Report shall detail all the expenses incurred relating to the Research and shall be submitted to the Company within thirty (30) days after the end of each calendar quarter. A summary Expenses Report shall be submitted forty five (45) days after the expiration of the Research Period. Should the Research Period be extended, Yissum shall continue to provide Expense Reports within thirty (30) days after the end of each calendar quarter and within forty five (45) days after the expiration of such extension.

6. Ownership

Yissum is the owner of the entire right, title and interest in the Licensed Patent Rights and Licensed Know-how. Notwithstanding the foregoing, as long as the Company is in compliance with its obligations under the License Agreement, it shall have an exclusive or non-exclusive license to all such Licensed Patent Rights and Licensed Know-how, as set forth in the License Agreement.

7. Confidentiality

(a) The Company and the Licensor warrant and agree that during the term of this Agreement and subsequent thereto, all Confidential Information disclosed by one party to the other party shall (a) not be used by the receiving party except in connection with the activities contemplated herein and by the Research Agreement, (b) be maintained in confidence by the receiving party and (c) shall

not be disclosed by the receiving party to any other person, firm or agency, governmental or private, without the prior written consent of the party disclosing such Confidential Information.

(b) The obligation contained in this clause shall not apply to information that is:

(i) in the possession of the receiving party prior to disclosure by the disclosing party; or

(ii) received by the receiving party from a third party rightfully in possession of the same and having the right to disclose the same; or

(iii) now or hereafter in the public domain through no fault of the the receiving party; or

(iv) required to be disclosed by legal, administrative or judicial process; provided that, the receiving party provides prior written notice of such disclosure to the disclosing party and takes reasonable and lawful actions to avoid and/or minimize the degree of such disclosure; or

(v) approved in writing for public release by the disclosing party.

(c) Notwithstanding the obligation of confidentiality set forth in subparagraph (a), above, the Company may disclose details and information as aforesaid to sub-licensees, potential sub-licensees and other third-parties, if such sub-licensees, potential sub-licenses or other third-parties have executed an undertaking for the maintenance of confidentiality.

(d) The parties each agree that they shall provide Confidential Information received from the other party only to their respective employees, consultants and advisors, and to the employees, consultants and advisors of such party's Affiliates, who have a need to know and have an obligation to treat such information and materials as confidential.

(e) The termination of this Agreement shall not release either party from its obligations pursuant to this paragraph, including the subparagraphs hereof.

8. Use of a Party's Name. Neither Party will, without the prior written consent of the other Party, use in advertising, publicity, or otherwise, the name, trademark, logo, symbol, or other image of the Party or that Party's employee or agent; provided, however, that Yisum acknowledges and agrees that the Company may use Yisum's name and references to this Agreement and related agreements and the names of Yisum's employees (including, without limitation, the Inventor) as they may relate to such agreements in any private placement memorandum, prospectus, registration statement or any similar disclosure document used by the Company for capital raising, financing and SEC reporting purposes as may be required by and in accordance with applicable law without such prior written consent. Yisum may list the existence of this Agreement in its internal documents and annual reports and

databases that are available to the public and identify the Project by title, Principal Investigators, the Company, and period and amount of funding.

9. Publications

(a) The parties declare that they encourage scientific publications in general and consider publications encompassing the subject matter of this Agreement and the Research Agreement an asset to the Company. The Company is aware that the Inventor and his students strive to publish their research and the students' success and advancement in the field are based on publishing their research.

(b) Yissum shall ensure that written publications or oral disclosures relating to the Invention, the Licensed Patent Rights, the Licensed Know-how, the Products that are subject to the terms of this Agreement and/or the License Agreement are not published by it, its officers, employees, representatives or agents without the prior written permission of the Company. The Company undertakes to reply to a request from Yissum to publish such information within thirty (30) days of receiving the request. The Company may refuse such request only upon reasonable grounds stated in writing.

(c) Should the Company decide not to allow publication pursuant to request made by Yissum for reasons which in Yissum's opinion are unreasonable, publication shall be postponed for a period of three months from the time Yissum gives further written notice of its intent to publish despite the Company's objection. Such three-month period is (i) to allow the Company to file the appropriate patent application; and/or (ii) to allow the Company to submit the dispute over publication to an arbitrator pursuant to the procedure set forth in Section IX of the License Agreement. Notwithstanding the foregoing, should the Company's patent attorney determine, in good faith, that the appropriate patent application would take longer than three months to prepare and file, the waiting period shall be extended to six months.

(c) The provisions of this Article shall not prejudice any other right that either party has pursuant to this Agreement and the applicable law.

10. Liability and Indemnity

(a) The Company agrees to defend Yissum and its Affiliates at its cost and expense, and will indemnify and hold Yissum and its Affiliates and their respective directors, officers, employees and agents (the "Yissum Indemnified Parties") harmless from and against any losses, costs, damages, fees or expenses arising out of a claim relating to (i) any breach by the Company of any of its representations, warranties or obligations pursuant to this Agreement or (ii) personal injury from the development, manufacture, use, sale or other disposition of any Products offered by the Company and/or its sublicensees or collaborators. In the event of any such claim against the Yissum Indemnified Parties by any third party, Yissum shall promptly notify the Company in writing of the claim and the Company shall manage and control, at its sole expense, the defense of the claim and its settlement. The Yissum Indemnified Parties shall cooperate with the Company and may, at their option and expense, be represented in any such action or proceeding. The Company shall not be liable for any litigation costs or expenses incurred by the Yissum Indemnified Parties without the Company's prior written authorization. In addition, the Company shall not be responsible for the indemnification of any Yissum Indemnified Party arising from any grossly negligent, reckless, willful or intentional acts by such party, or as a result of any settlement or compromise by the Yissum Indemnified Parties without the Company's prior written consent.

(b) Yissum agrees to defend the Company and its Affiliates at its costs and expense, and will indemnify and hold the Company and its Affiliates and their respective directors, officers, employees and agents (the "Company Indemnified Parties") harmless from and against any losses, costs, damages, fees or expenses arising out of any claim relating to any breach by Yissum of any of its representations, warranties or obligations pursuant to this Agreement. In the event of any claim against the Company Indemnified Parties by any third party, the Company shall promptly notify Yissum in writing of the claim and Yissum shall manage and control, at its sole expense, the defense of the claim and settlement. The Company Indemnified Parties shall cooperate with Yissum and may, at their option and expense, be represented in any such action or proceeding. Yissum shall not be liable for any litigation costs or expenses incurred by the Company Indemnified Parties without Yissum's prior written authorization. In addition, Yissum shall not be responsible for the indemnification of any Company Indemnified Party arising from any grossly negligent, reckless, willful or

intentional acts by such party, or as the result of any settlement or compromise by the Company Indemnified Parties without Yissum's prior written consent.

11. Term and Termination

(a) Subject to the terms and conditions as set forth in this Agreement, the term of this Agreement shall be for a period of four (4) years.

(b) Without prejudice to Yissum's rights at law or pursuant to this Agreement, Yissum may terminate this Agreement (i) by notice given to the Company if a receiver or liquidator is appointed for the Company and/or the Company passes a resolution for voluntary winding up or a winding up application is made against the Company and not set aside within sixty (60) days or (ii) if the Company should commit a material breach of the Agreement and not remedy the breach within thirty (30) days of receiving notice thereof;

(c) Without prejudice to the Company's rights pursuant to this Agreement or at law, the Company shall be entitled to terminate the Agreement (i) by notice given to Yissum if a receiver or liquidator is appointed for Yissum and/or Yissum passes a resolution for voluntary winding up or a winding up application is made against Yissum and not set aside within sixty (60) days or (ii) if Yissum should commit a material breach of the Agreement and not remedy the breach within thirty (30) days of receiving notice thereof.

(d) Should the Inventor fail to attain a Milestone then the Company shall be entitled to terminate this Agreement upon prior written notice as follows:

- (i) For Milestone One: Upon seventy five (75) days prior written notice;
- (ii) For Milestone Two: Upon seventy five (75) days prior written notice;
- (iii) For Milestone Three: Upon sixty (60) days prior written notice; and
- (iv) For Milestone Four: Upon thirty (30) days prior written notice;

and shall not be obligated to continue to finance the Research contemplated under this Agreement, provided, however, that if the Company chooses to terminate this Agreement pursuant to this subparagraph but Keryx does not terminate the License Agreement, it shall agree to fund other research in the laboratory of the Inventor in an amount equal to [**] of the remainder of the Consideration that has not been paid as of the date of the termination pursuant to this subparagraph. Notwithstanding the foregoing, should Yissum and the Inventor be able to complete the relevant Milestone prior to the expiration of the prior written notice set forth above, this Agreement shall not terminate.

(e) Should the Inventor become unable to complete or continue the Research for any reason, Yissum shall propose a substitute researcher (the "Substitute Researcher") to the Company. In the event that the Substitute Researcher is not reasonably acceptable to the Company, then the Company shall be entitled to terminate this Agreement upon thirty (30) days prior written notice and shall not be obligated to continue to finance the Research contemplated under this Agreement.

(f) If this Agreement is terminated prior to the end of the Research Period, all funds paid up to the time of termination shall be considered non-recoverable by the Company. Additionally, Yissum's sole damages and remedy shall be to recover from the Company all amounts owed for work completed and non-cancelable expenses committed through the date of termination based pro-rata upon the figures in Appendix B, provided, however, that the Company shall reimburse Yissum for non-cancelable employment obligations entered into by

Yissum as a result of this Agreement, except for the Inventor, for the remainder of any Agreement year which has begun and within such year the termination has occurred. Paragraphs 3 (Inventions and Patent Rights), 7 (Confidential Information), 8 (Use of Name), 9 (Publication), and 10 (Indemnification) shall survive any termination of this Agreement.

(g) Notwithstanding the foregoing, the Company shall be entitled to terminate this Agreement for any reason upon ninety (90) days written notice provided that, should it terminate the Agreement pursuant to this subparagraph, it shall be liable to make a one-time payment to Yissum in the amount of [**] of the remainder of the Consideration that has not been paid as of the date of the termination pursuant to this subparagraph.

(h) Termination of this Agreement pursuant to this Article 11 shall not constitute a breach of, nor result in the termination of, the License Agreement, and shall not require the return of by the Company or Keryx of any materials relating to the Research, Licensed Patents or Licensed Know-how or the cessation of the use thereof, except as set forth in subparagraphs 7.5.3(a) and (b) of the License Agreement.

12. Dispute Resolution. Any dispute arising from or relating to this Agreement shall be determined in accordance with the provisions of Article IX of the License Agreement.

13. Miscellaneous

(a) This Agreement and the rights and duties appertaining hereto may not be assigned by either party without first obtaining the written consent of the other, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, either party may assign this Agreement to a purchaser, merging or consolidating corporation, or acquiror of more than fifty percent (50%) of all of such party's assets or business. Notwithstanding the foregoing, either party may assign its rights (but not its obligations) pursuant to this Agreement in whole or part to an Affiliate.

(b) The failure or delay of a party to the Agreement to claim the performance of an obligation of the other party shall not be deemed a waiver of the performance of such obligation.

(c) Each party shall bear its own legal and other expenses involved in the making of this Agreement.

(d) The headings to the clauses in this Agreement are for the sake of convenience only and shall not serve in the Agreement's interpretation.

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(e) This Agreement constitutes a full and complete agreement between the parties and may only be amended by a document signed by both parties.

(f) The appendixes annexed hereto constitute an integral part hereof and shall be read jointly with its terms and provisions.

14. Notices

All notices or communications made pursuant to this Agreement shall be in writing and sent by certified first class mail, postage prepaid, by hand delivery or by facsimile, if confirmed in writing, at the addresses below or as otherwise designated by written notice given to the other party:

In the case of the Licensor:

Yissum Research Development Company of the
Hebrew University of Jerusalem
POB 4279

46 Jabotinsky Street
Jerusalem
Attention: Reuven Ron
Tel: 011-972-2-566-1540
Fax: 011-972-2-566-0331

In the case of the Company:

Keryx Biomedical Technologies Ltd.
7 Hartom Street
P.O. Box 23706
Jerusalem, Israel 91236
Attn: General Counsel
Tel: 011-972-2-541-3500
Fax: 011-972-2-541-3501

or such other address furnished in writing by one party to the other. Any notice sent as aforesaid shall be deemed to have been received four days after being posted by registered mail or one day after personal service, as the case may be.

AS WITNESS THE HANDS OF THE PARTIES:

YISSUM RESEARCH DEVELOPMENT
COMPANY OF THE HEBREW
UNIVERSITY OF JERUSALEM

By: /s/ Elena Canetti

Name: Elena Canetti
Title: VP of Marketing

By: /s/ R. Sherer

Name: R. Sherer
Title: Executive VP

KERYX BIOMEDICAL TECHNOLOGIES LTD.

By: /s/ Ira Weinstein

Name: Ira Weinstein
Title: Chief Operating Officer

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APPENDIX A

THE RESEARCH PROGRAM

Project 1: [**]
Duration of the project: [**]
Necessary Equipment:
[**]

Project 2: [**]
Necessary Equipment:
[**]

Necessary Equipment:
[**]
Necessary Equipment:
[**]
Duration of the project: [**]

Project 3: [**]

Duration of the project: [**]
Necessary Equipment:
[**]

Project 4: [**]
Project 4a: [**]
Project 4b: [**]
Duration of the project: [**]

APPENDIX B - CONSIDERATION

The Company will pay to Yisum the total amount of US \$[**] per year for a four (4) consecutive years as payable in equal quarterly installments commencing January 1, 2002, and to be made every three (3) months thereafter, provided that the Research has not otherwise been terminated.

EMPLOYMENT AGREEMENT

This Agreement by and between Keryx Biopharmaceuticals, Inc. ("Keryx"), a Delaware corporation having an address at 101 Main Street, Cambridge, Massachusetts 02142 and Barry Cohen, an individual residing at 38 King Arthur Court, New City, New York 10956 ("Cohen").

WITNESSETH:

WHEREAS, the Corporation desires to employ Cohen as Vice President, Business Development of Keryx and Cohen desires to be employed by the Keryx as Vice President, Business Development of Keryx, all pursuant to the terms and conditions hereinafter set forth;

NOW THEREFORE, in consideration of the foregoing and the mutual promises and covenants herein contained, it is agreed as follows:

1. EMPLOYMENT DUTIES

Keryx hereby engages and employs Cohen, and Cohen accepts engagement and employment, as Vice President, Business Development of Keryx, to direct, supervise and have responsibilities for the business development affairs of Keryx and for any other appropriate areas and tasks which the Board of Directors and/or the Chief Executive Officer may assign to him. Cohen acknowledges and agrees that the performance by Cohen of his duties hereunder may require significant domestic and international travel by Cohen.

2. TERM

Cohen's employment hereunder shall be for a term of three (3) years commencing on September 24, 2001, and continuing through September 23, 2004 (the "Initial Term"), with successive one-year renewals thereafter (the "Renewal Terms") unless sooner terminated as hereinafter provided. (The Initial Term and Renewal Terms are collectively referred to as the "Term.")

3. COMPENSATION

(a) As compensation for the performance of his duties on behalf of Keryx, Cohen shall be compensated as follows:

(i) Base Salary. Cohen shall receive an annual gross base salary of one hundred and seventy five thousand dollars (\$175,000) payable in accordance with the Corporation's payroll policies and subject to standard payroll deductions and withholdings. The Corporation's Board of Directors shall review Cohen's performance and the Corporation's financial and operating results on at least an annual basis, and may increase Cohen's base salary as it, in its reasonable discretion, deems appropriate based on such review.

(ii) Bonus. Cohen shall be eligible to receive one or more bonuses during any calendar year as set forth in Appendix A to this Agreement.

(iii) Equity. The Corporation will grant Cohen options (the "Options") to purchase 60,000 shares of the common stock of the Corporation (the "Initial Grant") at an exercise price equal to the closing price of Keryx common stock on Nasdaq on the day prior to the start of Cohen's employment (the "Exercise Price"), which options shall be exercisable for a period of 10 years from the date of issuance. Cohen's Options will be granted under the Corporation's 2000 Stock Option Plan (the "Plan") and will be subject to the terms and conditions thereof, including any Stock Option Agreement entered into by Cohen and the Corporation thereunder. In accordance with the Plan, should any change be made to the Common Stock by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, appropriate

adjustments shall be made to (A) the total number and/or class of securities subject to such options and (B) the Exercise Price in order to reflect such change and thereby preclude a dilution or enlargement under such options. Fifteen thousand shares of the Initial Grant shall vest on each anniversary date following the grant date of such options, provided that at the time of vesting, Cohen is employed by the Corporation or by a parent, subsidiary or affiliate of the Corporation. The remaining fifteen thousand

shares of the Initial Grant shall vest as set forth in Appendix A. In the event that the Corporation is acquired or is merged with another entity where the Corporation is not the surviving entity any outstanding but unvested options previously granted to Cohen shall vest immediately prior to the closing of such acquisition or merger.

(b) Expenses. Keryx shall reimburse Cohen for all normal, usual and necessary expenses incurred by Cohen in furtherance of the business and affairs of Keryx, including travel and entertainment, against receipt by Keryx of appropriate vouchers or other proof of Cohen's expenditures and otherwise in accordance with such Expense Reimbursement Policy as may from time to time be adopted by the Board of Directors of Keryx.

(c) Automobile Expenses. Cohen shall be entitled to receive reimbursement for the leasing and use of a personal automobile for business purposes up to an annual maximum of \$12,000 per year.

(d) Annual Leave and Holidays. Cohen shall be entitled during the term of this Agreement to twenty (20) business days of annual leave per year as well as the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the day following, and Christmas Day.

(e) Employee Benefits. During the Term of his employment, Cohen shall be entitled to participate in all employee and fringe benefit plans and programs generally offered to other members of the Corporation's management who are similarly situated, including, without limitation, any pension, profit sharing, incentive, retirement, insurance, health and disability benefits and plans. The Corporation reserves its right to modify or terminate any of its employee and fringe benefit plans and programs at any time.

4. REPRESENTATIONS AND WARRANTIES BY COHEN AND KERYX

(a) Cohen hereby represents and warrants to Keryx as follows:

(i) Neither the execution and delivery of this Agreement nor the performance by Cohen of his duties and other obligations hereunder violate any statute, law, determination or award, or conflict with or constitute a default under (whether immediately, upon the giving of notice or lapse of time or both) any prior employment agreement, contract, or other instrument to which Cohen is a party or by which he is bound.

(ii) Cohen has the full right, power and legal capacity to enter and deliver this Agreement and to perform his duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of Cohen enforceable against him in accordance with its terms. No approvals or consents of any persons or entities are required for Cohen to execute and deliver this Agreement or perform his duties and other obligations hereunder.

(iii) Cohen will devote his entire business time, energy, abilities and experience to the performance of his duties, effectively and in good faith. Further, during the Term, Cohen shall not render services as an employee, consultant or otherwise, whether or not during regular business hours, for pay to any other party other than the Corporation without the

written permission of the Chief Executive Officer.

(b) Keryx hereby represents and warrants to Cohen as follows:

(i) Keryx is duly organized, validly existing and in good standing under the laws of the State of Delaware, with all requisite corporate power and authority to own its properties and conduct its business in the manner presently conducted.

(ii) Keryx has the full power and authority to enter into this Agreement and to incur and perform its obligations hereunder.

(iii) The execution, delivery and performance by Keryx of this Agreement does not conflict with or result in a material breach or violation of or constitute a material default under (whether immediately, or upon the giving of notice or lapse of time or both) the certificate of

incorporation or by-laws of Keryx, or any agreement or instrument to which Keryx is a party or by which Keryx or any of its properties may be bound or affected.

5. CONFIDENTIAL INFORMATION

Cohen agrees to sign and comply with the Corporation's Proprietary Information and Inventions Agreement, annexed hereto as Appendix B.

6. NON-COMPETITION

(a) Cohen understands and recognizes that his services to Keryx are special and unique and agrees that, during the Term, and for a period of 12 months from the date of cessation of his employment hereunder, he shall not in any manner, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), enter into or engage in any business, either as an individual for his own account, or as a partner, joint venturer, treasurer, agent, consultant, salesperson, officer, director or shareholder of a Person, directly competitive with Keryx's actual and specific business as of the date of cessation his employment (the "Restricted Business"); provided, however, that nothing herein will preclude Cohen from holding one percent (1%) or less of the stock of any publicly traded Corporation or from holding a position with a Person who may engage in a business directly competitive with the Restricted Business so long as Cohen works solely in a division of such Person which carries on a bona fide business which is not directly competitive with the Restricted Business.

(b) In the event that Cohen breaches any provisions of this Section 6 or there is a threatened breach, then, in addition to any other rights which Keryx may have, Keryx shall be entitled, without the posting of a bond or other security, to injunctive relief to enforce the restrictions contained herein. In the event that an actual proceeding is brought in equity to enforce the provisions of this Section 6, Cohen shall not argue as a defense that there is an adequate remedy at law nor shall Keryx be prevented from seeking any other remedies that may be available.

7. NON-SOLICITATION AND NON-INTERFERENCE

During the Term, and for 12 months thereafter, Cohen shall not, directly or indirectly, without the prior written consent of Keryx:

(a) solicit or induce any employee of Keryx or any subsidiary, parent, affiliate or successor ("Affiliate") of Keryx to leave the employ of Keryx or any Affiliate or hire for any purpose any employee of Keryx or any Affiliate or any employee who has left the employment of Keryx or any Affiliate within six months of the termination of said employee's employment with Keryx; or

(b) interfere with or disrupt or attempt to disrupt Keryx's or its

Affiliates' business relationship with any of their partners, service providers, clients, customers and/or suppliers.

8. TERMINATION

(a) Either party may terminate Cohen's employment with the Corporation without cause at any time upon three (3) months notice. The Corporation shall have the right, in its sole discretion, to require Cohen to continue working for the Corporation during the notice period. If the Employer terminates the Employee without cause pursuant to this section, and provided that Cohen executes a waiver and release of claims substantially in the form set forth in Appendix C, attached hereto, Cohen shall be entitled to receive up to six (6) months of his base salary as severance, inclusive of the three (3) month notice period. Such severance shall be payable on a month-to-month basis, in arrears, and shall cease as soon as Cohen accepts alternative employment. Furthermore, Cohen's receipt of such severance shall be contingent upon his demonstrating best efforts to obtain such alternative employment during the severance period. The Corporation shall be entitled to request that Cohen produce appropriate evidence of such best efforts. The Board of Directors shall also take the necessary steps so that (i) any outstanding, but unvested, options granted to the Employee shall vest upon the effective date of his termination; and (ii) the period during which the Employee shall be permitted to exercise such options shall be extended to two (2) years from the effective date of his termination as defined in the Stock Option Plan governing the options in question.

(b) Cohen's employment shall be terminated by his death or disability. (For purposes of this section, "disability" shall be deemed to have occurred if Cohen is unable, due to any physical or

mental disease or condition, to perform his normal duties of employment for 120 consecutive days or 180 days in any twelve-month period, as certified by a physician mutually acceptable to both Cohen and the Corporation.) In such an event, he shall be entitled to continue to receive his base salary for three (3) months following his last day of actual (i) any outstanding, but unvested, options granted to the Employee shall vest upon the effective date of his termination; and (ii) the period during which the Employee shall be permitted to exercise such options shall be extended to two (2) years from the effective date of his termination as defined in the Share Option Plan governing the options in question. Should the Employee's employment be terminated as a result of his death, the benefits granted herein, shall be granted instead to his lawful heir or heirs. In either case (disability or death), accelerated vesting and extended exercise of the options will only be granted if Cohen or, in the case of his death, his legal successor, together with his lawful heir or heirs, execute a waiver and release of claims substantially in the form set forth in Appendix C, hereto.

(c) Notwithstanding the foregoing, the Corporation may terminate Cohen immediately and without prior notice in the following circumstances: (i) a material breach of Cohen's obligations pursuant to Sections 5, 6 and/or 7; (ii) a material breach by Cohen of any other provision of this Agreement, which is not cured by Cohen within thirty (30) days after receiving notice thereof from the Corporation containing a description of the breach or breaches alleged to have occurred; (iii) the habitual neglect or gross failure by Cohen to adequately perform the duties of his position; (iv) any act of moral turpitude or criminal action connected to his employment with the Corporation or his place of employment; or (e) Cohen's refusal to comply with or his violation of lawful instructions of the Chief Executive Officer or the Board of Directors.

(d). In the event that Cohen's employment has been terminated in accordance with Section 8(c), above, Cohen shall not be entitled to receive any of the severance benefits set forth in Section 8(a) or (b), above.

9. INDEMNIFICATION

The Corporation shall take whatever steps are necessary to establish a

policy of indemnifying its officers, including, but not limited to Cohen, for all actions taken in good faith in pursuit of their duties and obligations to the Corporation. Such steps shall include, but shall not necessarily be limited to, the obtaining of an appropriate level of Directors and Officers Liability coverage.

10. NOTICES

Any notice or other communication under this Agreement shall be in writing and shall be deemed to have been given when delivered personally against receipt thereof; two (2) business days after being sent by Federal Express or similar internationally recognized courier service; or seven (7) business days after being mailed registered or certified mail, postage prepaid, return receipt requested, to either party at the address set forth above, or to such other address as such party shall give by notice hereunder to the other party.

11. SEVERABILITY OF PROVISIONS

If any provision of this Agreement shall be declared by a court of competent jurisdiction to be invalid, illegal or incapable of being enforced in whole or in part, the remaining conditions and provisions or portions thereof shall nevertheless remain in full force and effect and enforceable to the extent they are valid, legal and enforceable, and no provision shall be deemed dependent upon any other covenant or provision unless so expressed herein.

12. ENTIRE AGREEMENT; MODIFICATION

This Agreement contains the entire agreement of the parties relating to the subject matter hereof, and the parties hereto have made no agreements, representations or warranties relating to the subject matter of this Agreement that are not set forth herein. No modification of this Agreement shall be valid unless made in writing and signed by the parties hereto.

13. BINDING EFFECT

The rights, benefits, duties and obligations under this Agreement shall inure to, and be binding upon, Keryx, its successors and assigns, and upon Cohen and his legal representatives. This Agreement constitutes a personal service agreement, and the performance of Cohen's obligations hereunder may not be transferred or assigned by Cohen.

14. NON-WAIVER

The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and said terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party.

15. GOVERNING LAW

This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the Commonwealth of Massachusetts without regard to principles of conflicts of law. Additionally, the prevailing party in any litigation shall be entitled to an additional award of its attorney fees, cost and expenses.

16. REMEDIES FOR BREACH

Cohen understands and agrees that any breach of Sections 4(a) 5, 6 and/or 7 of this Agreement by him could cause irreparable damage to Keryx and to the Affiliates, and that monetary damages alone would not be adequate and, in the event of such breach, Keryx shall have, in addition to any and all remedies of

law, the right to an injunction, specific performance or other equitable relief to prevent or redress the violation of Keryx's rights under such Sections.

17. HEADINGS

The headings of paragraphs are inserted for convenience and shall not affect any interpretation of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

EMPLOYEE:

By: /s/ Barry Cohen

Name: Barry Cohen

KERYX BIOPHARMACEUTICALS, INC.

By: /s/ Bob Gallahue

Name: Bob Gallahue
Title: CFO & Treasurer

APPENDIX A

Employee Bonus Plan

Pursuant to his employment agreement with Keryx, Cohen will be entitled to receive cash bonuses as follows: (1) 5% of base salary upon the closing of an outlicensing deal worth at least \$10 million during his employment; (2) 10% of base salary upon the closing of an outlicensing deal worth at least \$20 million during his employment; and (3) 15% of base salary upon the closing of an outlicensing deal worth at least \$30 million during his employment. For purposes of illustration, if three outlicensing deals worth at least \$30 million each are closed during his employment, Cohen will be entitled to a bonus equal to 45% of his base salary. Any bonuses earned will be paid once each year in accordance with Keryx's general employee bonus plan.

In addition, 5,000 shares of the Initial Grant shall vest upon the closing of the each of the first three outlicensing deals closed during Cohen's employment.

In the event that Cohen has not earned at least three cash bonuses within two years of start of his employment, this bonus plan will be cancelled and Keryx will create a new incentive plan. Such a cancellation will also result in the cancellation of any of the 15,000 options that have not yet vested pursuant to the terms of this bonus plan.

APPENDIX B

Proprietary Information and Inventions Agreement

In consideration of my employment or continued employment by Keryx

Biopharmaceuticals, Inc. (together with any subsidiary of Keryx Biopharmaceuticals, Inc., the "Company"), and the compensation now and hereafter paid to me, I hereby agree as follows:

1. Recognition of Company's Rights; Nondisclosure. At all times during the term of my employment and thereafter, I will hold in strictest confidence and will not disclose, use, lecture upon or publish any of the Company's Proprietary Information (defined below), except as such disclosure, use or publication may be required in connection with my work for the Company, or unless an officer of the Company expressly authorizes such in writing.

The term "Proprietary Information" shall mean trade secrets, confidential knowledge, data or any other proprietary information of the Company. By way of illustration but not limitation, "Proprietary Information" includes (a) inventions, mask works, trade secrets, ideas, processes, formulas, source and object codes, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques (hereinafter collectively referred to as "Inventions"); and (b) information regarding plans for research, development, new products, regulatory matters, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, suppliers and customers; and information regarding the skills and compensation of other employees of the Company.

2. Third Party Information. I understand, in addition, that the Company has received, and in the future will receive, from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of my employment and thereafter, I will hold Third Party Information in the strictest confidence and will not disclose to anyone (except in connection with my work for the Company), unless expressly authorized by an officer of the Company in writing.

3. Assignment of Inventions

3.1 Assignment

(a) I hereby assign to the Company all my right, title and interest in and to any and all Inventions and all patent rights, copyrights, mask work rights, trademarks, trade secret rights, all other rights throughout the world in connection therewith, and the goodwill associated with all of the foregoing (collectively, "Proprietary Rights"), whether or not patentable or registrable under patent, copyright, trademark or similar statutes, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with the Company. Inventions assigned to, or as directed by, the Company under this Paragraph 3 are hereinafter referred to as "Company Inventions". I agree, upon request, to execute, verify and deliver assignments of the Proprietary Rights to the Company or its designee and I hereby appoint the Company my attorney-in-fact with respect to the Proprietary Rights for the purpose of effecting any or all of the Company's rights to the Proprietary Rights.

3.1 Government. I also agree to assign to or as directed by the Company all my right, title and interest in and to any and all Inventions, full title to which is required to be assigned to the United States of America by a contract between the Company and United States of America or any of its agencies.

3.2 Works for hire. I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by copyright are "works made for hire", as that term is defined in the United States Copyright Act (17 U.S.C. Section 101).

4. Enforcement of Proprietary Rights. From time to time, I will assist the Company in every proper way to obtain and enforce United States and foreign

Proprietary Rights relating to Company

Inventions in any and all countries. My obligation to assist the Company with respect to Proprietary Rights relating to such Company Inventions in any and all countries shall continue beyond the termination of my employment, but the Company shall compensate me at a reasonable rate after my termination for the time actually spent by me at the Company's request on such assistance.

I hereby waive and quitclaim to the Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Proprietary Rights assigned hereunder to the Company.

5. Obligation to Keep Company Informed. During the period of my employment, I will promptly disclose all Inventions to the Company fully and in writing and will hold such Inventions in trust for the sole right and benefit of the Company. In addition, after termination of my employment, I will promptly disclose all patent applications filed by me within a year after termination of employment.

6. Prior Inventions. Inventions, if any, patented or unpatented, which I made prior to the commencement of my employment with the Company are excluded from the scope of this Agreement. To preclude any possible uncertainty, I have set forth in Exhibit A attached hereto a complete list of all Inventions (i) that I have, alone or jointly with others, conceived, developed or reduced to practice or caused to be conceived, developed or reduced to practice prior to the commencement of my employment with the Company, (ii) that I consider to be my property or the property of third parties and (iii) that I wish to have excluded from the scope of this Agreement. If disclosure of any such Invention on Exhibit A would cause me to violate any prior confidentiality agreement, I understand that I am not to list such Inventions in Exhibit A but am to inform the Company that all such Inventions have not been listed for that reason.

7. No Improper Use of Materials. During my employment by the Company, I will not improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of the Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

8. No Conflicting Obligation. I represent that my performance of all the terms of this Agreement and my performance of my duties as an employee of the Company do not and will not breach any agreement to keep in confidence information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any agreement either written or oral in conflict herewith.

9. Return of Company Documents. When I leave the employ of the Company, I will deliver to the Company any and all drawings, notes, memoranda, specifications, devices, formulas, molecules, cells, storage media, including software, documents and computer printouts, together with all copies thereof, and any other material containing or disclosing any Company Inventions, Third Party Information or Proprietary Information of the Company. I further agree that any property situated on the Company's premises and owned by the Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company personnel at any time with or without notice. Prior to leaving, I will cooperate with the Company in completing and signing the Company's termination statement for technical and management personnel.

10. Legal and Equitable Remedies. Because my services are personal and unique and because I may have access to and may become acquainted with the Proprietary Information of the Company, the Company shall have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief, without bond, without prejudice to any other rights and remedies that the Company may have for a breach of this

Agreement, and I waive the claim or defense that the Company has an adequate remedy at law. I shall not, in any action or proceeding to enforce any of the provisions of this Agreement, assert the claim or defense that such an adequate remedy at law exists.

11. Notices. Any notices required or permitted hereunder shall be given to me at the address specified below or at such other address as I shall specify in writing. Such notice shall be deemed given upon personal delivery to the appropriate address or if sent by certified or registered mail, three days after the date of mailing.

12. General Provisions.

12.1 Governing Law. This Agreement is executed under seal and will be governed by and construed according to the laws of the Commonwealth of Massachusetts.

12.2 Entire Agreement. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter hereof and supersedes and merges all prior discussions between us. No modification or amendment of this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing, signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement. As used in this Agreement, the period of my employment includes any time during which I may be retained by the Company as a consultant.

12.3 Severability. If one or more of the provisions in this Agreement are deemed unenforceable by law, then the remaining provisions will continue in full force and effect.

12.4 Successors and Assigns. This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and its assigns. I may not assign any of my rights, or delegate any of my obligations, under this Agreement.

12.5 Survival. The provisions of this Agreement shall survive the termination of my employment and the assignment of this Agreement by the Company to any successor in interest or other assignee.

12.6 Employment. I agree and understand that nothing in this Agreement shall confer on me any right with respect to continuation of my employment with the Company, or shall it interfere in any way with my right or the Company's right to terminate my employment at any time, with or without cause.

12.7 Waiver. No waiver by the Company of any breach of this Agreement shall be a waiver of any preceding or succeeding breach. No waiver by the Company of any right under this Agreement shall be construed as a waiver of any other right. The Company shall not be required to give notice to enforce strict adherence to all terms of this Agreement.

12.8 Counterparts. This Agreement may be executed in counterparts, all of which together shall for all purposes constitute one Agreement, binding on each of the parties hereto notwithstanding that each such party shall not have signed the same counterpart.

12.9 Jurisdiction and Venue; Waiver of Jury Trial. In case of any dispute hereunder, the parties will submit to the exclusive jurisdiction and venue of any court of competent jurisdiction sitting in Suffolk County, Massachusetts, and will comply with all requirements necessary to give such court jurisdiction over the parties and the controversy. EACH PARTY HEREBY WAIVES ANY RIGHT TO A JURY TRIAL AND TO CLAIM OR RECOVER PUNITIVE DAMAGES.

12.10 Disclosure. I shall disclose the existence and terms of this Agreement to any employer or other person that I may work for or be engaged by after the termination of my employment or engagement at the Company. I agree that the Company may, after notification to me, provide a copy of this Agreement to any business or enterprise (i) which I may directly or indirectly own, manage, operate, finance, join, control or participate in the ownership, management, operation, financing, or control of, or (ii) with which I may be connected with as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise, or in connection with which I may use or permit my name to be used. I will provide the names and addresses of any of such persons or entities as the Company may from time to time reasonably request.

This Agreement shall be effective as of the first day of my employment with the Company, namely September 24, 2001.

I UNDERSTAND THAT THIS AGREEMENT AFFECTS MY RIGHTS TO INVENTIONS I MAKE DURING MY EMPLOYMENT, AND RESTRICTS MY RIGHTS TO DISCLOSE OR USE THE COMPANY'S CONFIDENTIAL INFORMATION DURING OR SUBSEQUENT TO MY EMPLOYMENT.

I HAVE READ THIS AGREEMENT CAREFULLY AND UNDERSTAND ITS TERMS.

Signature:

/s/ Barry Cohen

Barry Cohen

Date: 9/6/01

ACCEPTED AND AGREED TO:
Keryx Biopharmaceuticals, Inc.

By: /s/ Bob Gallahue

Signature

Name: Bob Gallahue

Title: CFO & Treasurer

EXHIBIT A

NONE

APPENDIX C

Employee Agreement And Release

Except as otherwise set forth in this Employee Agreement and Release (the "Agreement") between the undersigned and Keryx Biopharmaceuticals, Inc. (the "Corporation"), I hereby release, acquit and forever discharge the Corporation, its parents, affiliates and subsidiaries, and their officers, directors, agents, servants, employees, attorneys, shareholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed, arising out of or in any way related to agreements, events, acts or conduct at any time prior to and including the execution date of this Agreement, including but not limited to: all such claims and demands directly or indirectly arising out of or in any way connected with my employment with the Corporation or the termination of that employment; claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in the Corporation, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law, statute, or cause of action including, but not limited to, Title VII of the Civil Rights Act of 1964, 42 U.S.C.ss. 2000e et seq., the Age Discrimination in Employment Act, 29 U.S.C.ss. 621 et seq. ("ADEA"), the Americans With Disabilities Act of 1990, 42 U.S.C.ss. 12101 et seq., and the Massachusetts Fair Employment Practices Act, M.G.L. c.151B,ss. 1 et seq., all as amended, and all claims arising out of the Fair Credit Reporting Act, 15 U.S.C.ss. 1681 et seq., the Employee Retirement Income Security Act of 1974 ("ERISA"), 29 U.S.C.ss. 1001 et seq., the Massachusetts Civil Rights Act, M.G.L. c.12ss.ss. 11H and 11I, the Massachusetts Equal Rights Act, M.G.L. c.93ss. 102 and M.G.L. c.214,ss.1C, the Massachusetts Labor and Industries Act, M.G.L. c. 149,ss. 1 et seq., and the Massachusetts Privacy Act, M.G.L. c.214,ss.1B, all as amended;; tort law; contract law; wrongful discharge; discrimination; harassment; retaliation; fraud; defamation; emotional distress; and breach of the implied covenants of good faith and fair dealing.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that the consideration given for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that; (a) my waiver and release do not apply to any rights or claims that may arise after the execution date of this Agreement; (b) I have been advised hereby that I have the right to consult with an attorney prior to executing this Agreement; (c) I have twenty-one (21) days to consider this Agreement (although I may choose to voluntarily execute this Agreement earlier); (d) I have seven (7) days following the execution of this Agreement by the parties to revoke the Agreement; and (e) this Agreement shall not be effective until the date upon which the revocation period had expired, which shall be the eighth day after this Agreement is executed by me.

In giving this release, which includes claims that may be unknown to me at present, I hereby expressly waive and relinquish all rights and benefits under any law of any jurisdiction with respect to my release of any such presently unknown claims I may have against the Corporation.

Dated: _____

Barry Cohen

EMPLOYMENT AGREEMENT

This Agreement, dated October 15, 2001 (the "Effective Date"), by and between Keryx Biopharmaceuticals, Inc. ("Keryx"), a Delaware corporation having an address at 5 Kiryat Mada, Jerusalem, Israel 91236, and Rony Seger, an individual residing at _____, Israel (the "CSO")

WHEREAS, Keryx desires to employ the CSO as the Chief Scientific Officer ("CSO") of Keryx and the CSO desires to be employed by Keryx as CSO of Keryx, all pursuant to the terms and conditions hereinafter set forth;

NOW THEREFORE, in consideration of the foregoing and the mutual promises and covenants herein contained, it is agreed as follows:

1. EMPLOYMENT DUTIES

(a) Keryx hereby engages and employs the CSO, and the CSO accepts engagement and employment, as the CSO of Keryx, to direct, supervise and have responsibilities for the scientific and research affairs of Keryx and for any other appropriate areas and tasks which the Chief Executive Officer may assign to him. The CSO acknowledges and agrees that the performance by the CSO of his duties hereunder may require significant domestic and international travel by the CSO. In addition, the CSO realizes that he may be required to spend a substantial amount of time in Jerusalem, Israel.

(b) The CSO shall devote substantially all of his gainful time to the discharge of his duties and responsibilities under this Agreement.

(c) Keryx shall not require the CSO to act on its behalf in any manner that would represent a conflict between the interests of Keryx, on one hand, and the Weizmann Institute, on the other hand. Such acts which the CSO shall not perform shall include, but not be limited to, the carrying out of research for Keryx that overlaps or continues research he has carried out at the Weizmann Institute as of the date of this Agreement, as set forth in Appendix A to this Agreement; the evaluation of technology belonging to the Weizmann Institute that Keryx is interested in licensing; and conducting negotiations on Keryx's behalf with the Weizmann Institute in connection with technology belonging to the Weizmann Institute that Keryx is interested in licensing.

2. TERM

This Agreement shall take effect from the Effective Date and shall remain in effect unless it is earlier terminated as hereinafter provided.

3. COMPENSATION

(a) As compensation for the performance of his duties on behalf of Keryx, the CSO shall be compensated as follows:

(i) Upon the next meeting of the Corporation's Board of Directors, the Corporation will grant (the "Initial Grant") the CSO options (the "Options") to purchase 75,000 shares of the Common Stock of the Corporation at an exercise price equal to the closing price per share of the Keryx's stock on Nasdaq on the last trading day preceding the Effective Date (the "Exercise Price"), which options shall be exercisable for a period of 10 years from the date of issuance. Should any change be made to the Common Stock by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, appropriate adjustments shall be made to (i) the total number and/or class of securities subject to such options and (ii) the Exercise Price in order to reflect such change and thereby preclude a dilution or enlargement under such options.

(ii) The Options shall vest as follows: one-sixth six months from the date of grant; one-sixth twelve months from the date of grant; one-sixth eighteen months from the date of grant; one-sixth twenty four months from the date of grant; one-sixth thirty months from the date of grant; and one-sixth thirty six months from the date of grant; but immediate vesting shall occur upon a change of control of the Corporation as described in paragraph 8 (iii) (C), below; provided that in all

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cases the CSO is a Service Provider, as defined in the 2000 Stock Option Plan, of the Corporation or one of its subsidiaries at the time of vesting.

(iii) At the discretion of the Board of Directors, the CSO shall be entitled to an annual grant of subsequent stock options each of which shall have the same antidilution protection as described in Section 3 paragraph (a) (i) above.

(iv) All option grants made to the CSO shall be governed by the terms and conditions of Keryx's 2000 Stock Option Plan.

(b) Keryx shall reimburse the CSO for all normal, usual and necessary expenses incurred by the CSO in furtherance of the business and affairs of Keryx, including travel and entertainment, against receipt by Keryx of appropriate vouchers or other proof of the CSO's expenditures and otherwise in accordance with such Expense Reimbursement Policy as may from time to time be adopted by the Board of Directors of Keryx.

(c) Keryx and the CSO shall execute an agreement that provides for the indemnification of the Company's officers and directors. In addition, Keryx shall maintain an appropriate level of Directors and Officers Liability coverage, which coverage shall include the CSO.

(d) Subject to Section 10(c) below, the CSO must be an employee or consultant of Keryx at the time any options vests in order to receive such compensation. In addition, no options shall vest after the termination of this Agreement or other agreement between Keryx and the CSO.

4. REPRESENTATIONS AND WARRANTIES

(a) The CSO hereby represents and warrants to Keryx as follows:

(i) Neither the execution and delivery of this Agreement nor the performance by the CSO of his duties and other obligations hereunder violate any statute, law, determination or award, or conflict with or constitute a default under (whether immediately, upon the giving of notice or lapse of time or both) any prior employment agreement, contract, or other instrument to which the CSO is a party or by which he is bound.

(ii) The CSO has the full right, power and legal capacity to enter and deliver this Agreement and to perform his duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the CSO enforceable against him in accordance with its terms. No approvals or consents of any persons or entities are required for the CSO to execute and deliver this Agreement or perform his duties and other obligations hereunder.

(b) Keryx hereby represents and warrants to the CSO as follows:

(i) Keryx is duly organized, validly existing and in good standing under the laws of the State of Delaware, with all requisite corporate power and authority to own its properties and conduct its business in the manner presently described.

(ii) Keryx has the full power and authority to enter into this

Agreement and to incur and perform its obligations hereunder.

(iii) The execution, delivery and performance by Keryx of this Agreement does not conflict with or result in a breach or violation of or constitute a default under (whether immediately, or upon the giving of notice or lapse of time or both) the certificate of incorporation or by-laws of Keryx, or any agreement or instrument to which Keryx is a party or by which Keryx or any of its properties may be bound or affected.

5. CONFIDENTIAL INFORMATION

The CSO agrees that during the course of his employment and at any time thereafter, he will not disclose or make accessible to any other person, including, but not limited to, the Weizmann Institute of Science, Keryx's products, services and technology, both current and under development, promotion and marketing programs, lists, trade secrets and other confidential and proprietary business information of Keryx or of any third party confidential information provided to Keryx, provided that

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the CSO shall be entitled and required to furnish Yeda Research and Development Co. Ltd. ("Yeda") all of the details and specifications relevant to s patent applications filed by Keryx or any of its affiliates on which he is listed as an inventor pursuant to article 7(f) hereunder, provided that prior to any such disclosure to Yeda, Yeda shall have executed a confidentiality agreement with Keryx in a form agreeable to Keryx. The CSO agrees: (i) not to use any such information for himself or others; (ii) and not to take any such material or reproductions thereof from Keryx's facilities at any time during his employment by Keryx, except as required in the performance of his duties. The CSO agrees immediately to return all such material and reproductions in his possession to Keryx upon request and in any event upon termination of employment. Nothing in the foregoing shall be construed to prevent the CSO from disclosing or using any information which the CSO can show by written documentation was in the public domain or enters into the public domain through no improper act on the CSO's part or on the part of any of Keryx's employees or was in his possession prior to his joining Keryx or disclosed to the CSO after he has left Keryx on a non-confidential basis by a person authorized to do so.

6. NON-COMPETITION

(a) The CSO understands and recognizes that his services to Keryx are special and unique and agrees that, during the term of this Agreement, and for a period of 12 months from the date of termination of his employment hereunder, he shall not in any manner, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), enter into or engage in any business directly competitive with Keryx's business, either as an individual for his own account, or as a partner, joint venturer, CSO, agent, consultant, salesperson, officer, director or shareholder of a Person operating or intending to operate within the area that Keryx is, at the date of termination, conducting its business (the "Restricted Businesses"); provided, however, that nothing herein will preclude the CSO from holding one percent (1%) or less of the stock of any publicly traded company or from holding a position with a Person who does not engage in a business directly competitive with the Restrictive Businesses so long as the CSO works in a division of such Person which carries on a bona fide business which is not directly competitive with the Restricted Businesses or from conducting or supervising the performance of research at the Weizmann Institute of Science not directly competitive with the Restricted Business.

(b) For a period of 12 months after the termination of this Agreement, the CSO shall not interfere with or disrupt or attempt to disrupt Keryx's business relationship with any of its partners, customers or suppliers.

(c) During the term of this Agreement, and for 12 months thereafter, the

CSO shall not, directly or indirectly, without the prior written consent of Keryx:

(i) solicit or induce any employee of Keryx or any Affiliate to leave the employ of Keryx or any Affiliate or hire for any purpose any employee of Keryx or any Affiliate or any employee who has left the employment of Keryx or any Affiliate within six months of the termination of said employee's employment with Keryx; or

(ii) solicit or accept employment or be retained by any party who, at any time during the Term, was a customer or supplier of Keryx or any Affiliate where his position will be related to the business of Keryx; or

(iii) solicit or accept the business of any customer or supplier of Keryx or any Affiliate with respect to products similar to those supplied by Keryx.

(d) In the event that the CSO breaches any provisions of this Section 6 or there is a threatened breach, then, in addition to any other rights which Keryx may have, Keryx shall be entitled, without the posting of a bond or other security, to injunctive relief to enforce the restrictions contained herein. In the event that an actual proceeding is brought in equity to enforce the provisions of this Section 6, the CSO shall not argue as a defense that there is an adequate remedy at law nor shall Keryx be prevented from seeking any other remedies that may be available.

7. PROPRIETARY INFORMATION AND INVENTIONS

(a) Except as set forth below in subparagraph (f), the CSO agrees that all information that has been created, discovered or developed by Keryx, its subsidiaries, affiliates, successors or assigns (collectively, the "Affiliates") (including, without limitation, information relating to the

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development of Keryx's business created, discovered, developed or made known to Keryx or the Affiliates by the CSO during the Term and information relating to Keryx's customers, suppliers, consultants, and licensees) and/or in which property rights have been assigned or otherwise conveyed to Keryx or the Affiliates, shall be, the sole property of Keryx or the Affiliates, as applicable, and Keryx or the Affiliates, as the case may be, shall be the sole owner of all patents, copyrights and other rights in connection therewith, including but not limited to the right to make application for statutory protection. All of the aforementioned information is hereinafter called "Proprietary Information." By way of illustration, but not limitation, Proprietary Information includes trade secrets, processes, discoveries, structures, inventions, designs, ideas, works of authorship, copyrightable works, trademarks, copyrights, formulas, data, know-how, show-how, improvements, inventions, product concepts, techniques, information or statistics contained in, or relating to, marketing plans, strategies, forecasts, blueprints, sketches, records, notes, devices, drawings, customer lists, patent applications, continuation applications, continuation-in-part applications, file wrapper continuation applications and divisional applications and information about Keryx's or the Affiliates' employees and/or consultants (including, without limitation, the compensation, job responsibility and job performance of such employees and/or consultants).

(b) The CSO further agrees that at all times, both during the Term and after the termination of this Agreement, he will keep in confidence and trust all Proprietary Information, and he will not use or disclose any Proprietary Information or anything directly relating to it without the written consent of Keryx or the Affiliates, as appropriate, except as may be necessary in the ordinary course of performing his duties hereunder. The CSO acknowledges that the Proprietary Information constitutes a unique and valuable asset of Keryx and each Affiliate acquired at great time and expense, which is secret and

confidential and which will be communicated to the CSO, if at all, in confidence in the course of his performance of his duties hereunder, and that any disclosure or other use of the Proprietary Information other than for the sole benefit of Keryx or the Affiliates would be wrongful and could cause irreparable harm to Keryx or the Affiliates, as the case may be.

(c) The CSO declares that he is aware that anything that is done by him during the term of this Agreement in Keryx or in connection with Keryx, whether it be an invention, a discovery, or the development of an idea or a thing, all within the framework of Keryx's business, except as set forth below in subparagraph (f), shall belong to and be controlled by Keryx, unless the Board of Directors shall, in writing, direct otherwise. During the term of this Agreement, the CSO agrees that he will promptly disclose to Keryx, or any persons designated by Keryx, all improvements, inventions, designs, ideas, works of authorship, copyrightable works, discoveries, trademarks, copyrights, trade secrets, formulas, processes, structures, product concepts, marketing plans, strategies, customer lists, information about Keryx's or the Affiliates' employees and/or consultants (including, without limitation, job performance of such employees and/or consultants), techniques, blueprints, sketches, records, notes, devices, drawings, know-how, data, whether or not patentable, patent applications, continuation applications, continuation-in-part applications, file wrapper continuation applications and divisional applications, made or conceived or reduced to practice or learned by him, either alone or jointly with others, during the term of this Agreement (all said improvements, inventions, designs, ideas, works of authorship, copyrightable works, discoveries, trademarks, copyrights, trade secrets, formulas, processes, structures, product concepts, marketing plans, strategies, customer lists, information about Keryx's or the Affiliates' employees and/or consultants, techniques, blueprints, sketches, records, notes, devices, drawings, know-how, data, patent applications, continuation applications, continuation-in-part applications, file wrapper continuation applications and divisional applications shall be collectively hereinafter called "Inventions").

(d) The CSO agrees that, except as set forth below in subparagraph (f), all Inventions shall be the sole property of Keryx to the maximum extent permitted by applicable law and to the extent permitted by law shall be "works made for hire" as that term is defined in the United States Copyright Act (17 USCA, Section 101). Except as set forth below in subparagraph (f), Keryx shall be the sole owner of all patents, copyrights, trade secret rights, and other intellectual property or other rights in connection therewith. Except as set forth below in subparagraph (f), the CSO hereby assigns to Keryx all right, title and interest he may have or acquire in all Inventions. The CSO further agrees to assist Keryx in every proper way (but at Keryx's expense) to obtain and from time to time enforce patents, copyrights or other rights on said Inventions in any and all countries, and to that end the CSO will execute all documents necessary:

(i) to apply for, obtain and vest in the name of Keryx alone (unless Keryx otherwise directs and except as set forth below in subparagraph (f)) letters patent, copyrights or other

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analogous protection in any country throughout the world and when so obtained or vested to renew and restore the same; and

(ii) to defend any opposition proceedings in respect of such applications and any opposition proceedings or petitions or applications for revocation of such letters patent, copyright or other analogous protection.

(e) The CSO's obligation to assist Keryx in obtaining and enforcing patents and copyrights for the Inventions in any and all countries shall continue beyond the term of this Agreement, but Keryx agrees to compensate the CSO at his normal and usual rate after the expiration of the term of this Agreement for time

actually spent by the CSO at Keryx's request on such assistance.

(f) Notwithstanding the foregoing, Keryx acknowledges that because the CSO shall continue to be a tenured employee of the Weizmann Institute of Science (on a sabbatical leave of absence) during the term of this Agreement, the provisions set forth in the agreement between Keryx and Yeda, a copy of which is annexed to this Agreement as Appendix B, shall be applicable to patentable inventions made by him during his employment by Keryx.

8. TERMINATION

This CSO's employment hereunder shall begin on the Effective Date and shall continue for the period set forth in Section 2 hereof unless sooner terminated upon the first to occur of the following events:

(a) (i) the death of the CSO; or

(ii) the CSO's inability to perform his duties pursuant to this Agreement for more than three (3) months.

(b) Termination by Keryx for just cause. Any of the following actions by the CSO shall constitute just cause:

(i) Material breach by the CSO of Sections 5, 6 or 7 of this Agreement;

(ii) Material breach by the CSO of any provision of this Agreement other than Sections 5, 6 or 7, which is not cured by the CSO within 15 days of notice from Keryx;

(iii) The habitual neglect or gross failure by the CSO to adequately perform the duties of his position;

(iv) Any act of moral turpitude or criminal action connected to his employment with Keryx or his place of employment; or

(v) The CSO's refusal to comply with or his violation of lawful instructions of the Chief Executive Officer or the Board of Directors.

(c) Termination without cause. Notwithstanding anything in this Agreement, either party may terminate the CSO's employment without cause upon three (3) months prior notice.

9. NOTICES

Any notice or other communication under this Agreement shall be in writing and shall be deemed to have been given: when delivered personally against receipt thereof; one (1) business day after being sent by Federal Express or similar overnight delivery; or three (3) business days after being mailed registered or certified mail, postage prepaid, return receipt requested, to either party at the address set forth above, or to such other address as such party shall give by notice hereunder to the other party.

10. SEVERABILITY OF PROVISIONS

If any provision of this Agreement shall be declared by a court of competent jurisdiction to be invalid, illegal or incapable of being enforced in whole or in part, the remaining conditions and

provisions or portions thereof shall nevertheless remain in full force and effect and enforceable to the extent they are valid, legal and enforceable, and no provision shall be deemed dependent upon any other covenant or provision unless so expressed herein.

11. ENTIRE AGREEMENT; MODIFICATION

This Agreement contains the entire agreement of the parties relating to the subject matter hereof, and the parties hereto have made no agreements, representations or warranties relating to the subject matter of this Agreement that are not set forth herein. No modification of this Agreement shall be valid unless made in writing and signed by the parties hereto.

12. BINDING EFFECT

The rights, benefits, duties and obligations under this Agreement shall inure to, and be binding upon, Keryx, its successors and assigns, and upon the CSO and his legal representatives. This Agreement constitutes a personal service agreement, and the performance of the CSO's obligations hereunder may not be transferred or assigned by the CSO.

13. NON-WAIVER

The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and said terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party.

14. GOVERNING LAW

(a) This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the Commonwealth of Massachusetts without regard to principles of conflicts of law. Any litigation commenced pursuant to the terms of the Agreement shall only be prosecuted and defended in the city and county of Boston. Additionally, the prevailing party in any litigation shall be entitled to an additional award of the recoupment of its attorney fees, cost and expenses. Notwithstanding the foregoing, all conflicts relating to or arising from subparagraph 7(f), above, shall be settled as set forth in Appendix B.

17. REMEDIES FOR BREACH

The CSO understands and agrees that any breach of Sections 5, 6 and/or 7 of this Agreement by him could cause irreparable damage to Keryx and to the Affiliates, and that monetary damages alone would not be adequate and, in the event of such breach, Keryx shall have, in addition to any and all remedies of law, the right to an injunction, specific performance or other equitable relief to prevent or redress the violation of Keryx's rights under such Sections.

18. HEADINGS

The headings of paragraphs are inserted for convenience and shall not affect any interpretation of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

EMPLOYEE:

By: /s/ Rony Seger

Name: Rony Seger

KERYX BIOPHARMACEUTICALS, INC.

By: /s/ Ira Weinstein

Name: Ira Weinstein

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Appendix A

Seger Research

The following describes the research that has been conducted and/or is being conducted by Dr. Seger at the Weizmann Institute as of the date of this Agreement:

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Appendix B

Intellectual Property Agreement with Yeda Research and Development Co., Ltd.

AGREEMENT

This Agreement, dated _____, 2001 (the "Effective Date"), by and between Keryx Biopharmaceuticals, Inc. ("Keryx"), a Delaware corporation having an address at 5 Kiryat Mada, Jerusalem, Israel 91236, Yeda Research and Development Co. Ltd., an Israeli company having an address at _____, and Rony Seger, an individual residing at _____, Israel ("Seger").

WHEREAS Keryx intends to employ Seger as its Chief Scientific Officer during Seger's sabbatical from the Weizmann Institute of Science;

WHEREAS Seger will continue to be a tenured employee of the Weizmann Institute of Science during his employment by Keryx; and

WHEREAS in light of Seger's employment by both Keryx and the Weizmann Institute of Science, the parties desire to set certain guidelines and procedures by which the ownership of certain intellectual property developed by Seger during his employment by Keryx shall be determined;

IT IS HEREBY AGREED by and between the parties:

1. In the event that Seger is listed as an inventor on a patent application to be filed by Keryx or an affiliated company, Keryx shall so notify Yeda. In such a case, Keryx shall provide Yeda with a copy of the patent application and other appropriate information related to the invention disclosed in such patent application at the time Keryx makes the decision to file such patent application.
2. Keryx and Yeda, acting together amicably and in good faith, shall make the determination of whether Seger's contribution to the invention disclosed in the patent application is significant. It is understood and agreed that Seger's appearance on a patent application as one of the inventors shall not, in and of itself, be evidence that Seger's contribution is significant within the meaning of this clause.
3. Should Keryx and Yeda determine that Seger's part in any Invention was significant, they shall also determine the relative portion of the patentable invention attributable to the efforts and inventorship of Seger (the "Relevant Portion"). Keryx and Seger shall take all the necessary steps to assign to Yeda all right and title to the Relevant Portion.

4. At the same time, Yeda and Keryx shall negotiate in good faith an agreement whereby Yeda shall grant Keryx an exclusive, worldwide license to the Relevant Portion under terms that Yeda can demonstrate are similar in nature to Yeda's customary license agreements in return for the payment by Keryx of royalties on net sales and sublicensing receipts) received by Keryx and/or an affiliated company in connection with the sale or sublicense of a patentable invention containing the Relevant Portion (the "Yeda Royalties"). The Yeda Royalties shall be proportional to the part the Relevant Portion represents of the entire relevant patentable invention. Furthermore, the rate of the Yeda Royalties shall be set at no more than one-half of the rate Yeda can demonstrate it customarily receives for the exclusive license of inventions similar in nature to the patentable invention containing the Relevant Portion. The parties shall devise a mutually acceptable means by which Yeda can demonstrate to Keryx the customary terms and/or royalty rates of its other license agreements without causing Yeda to breach obligations of confidentiality it may have to its other licensing partners.
5. Any license granted to Keryx by Yeda to a Relevant Portion shall be in force as long as Keryx pays the relevant royalties and complies with whatever other reasonable obligations are negotiated between Keryx and Yeda.
6. Prior to Keryx's disclosure to Yeda of information pursuant to paragraph 1, above, Yeda must have executed a confidentiality agreement with Keryx in a form agreeable to Keryx.

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7. Any disagreement or dispute among the parties relating to or arising from this Agreement, which cannot be promptly resolved on an amicable basis, shall be resolved by arbitration. The arbitration shall be conducted in accordance with the Israel Arbitration Law - 1968 provided, however, that, if such law is inconsistent with the provisions of this paragraph, the provisions hereof shall prevail. The arbitration shall be before a single Arbitrator chosen by the Chief Executive Officer of Keryx and the _____ of Yeda within ten (10) days of notice being given by one of the parties that arbitration is desired. If they are unable to agree on the selection of an Arbitrator, _____ shall be appointed to conduct the arbitration. The Arbitrator shall be bound by Israeli substantive law but shall not be bound by any judicial rules of evidence or procedure. The Arbitrator's decision shall be detailed and in writing and his award shall be final and binding upon the parties. Judgment upon the arbitral award may be entered by any court of competent jurisdiction, including the District Court of Jerusalem, to the jurisdiction of which the parties hereby submit. Unless the Arbitrator otherwise determines, the parties shall bear equally the fees and expenses of the Arbitrator. Each of the

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parties shall bear its own expenses in connection with the arbitration, but in the event that court proceedings are instituted in connection with this Agreement or in connection with any arbitration hereunder, the party prevailing in such proceedings shall be entitled to recover its reasonable attorneys' fees and expenses.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

KERYX BIOPHARMACEUTICALS, INC.

YEDA RESEARCH & DEVELOPMENT CO., LTD.

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

RONY SEGER

EMPLOYMENT AGREEMENT

This employment agreement (the "Agreement") is effective as of October 15, 2001 (the "Effective Date"), by and between Keryx Biomedical Technologies Ltd., an Israeli company with its principal place of business at Kiryat Mada 5, Jerusalem (the "Company") and Rony Seger, I.D. No. _____, of _____ (the "Employee").

Whereas the Company desires to employ the Employee in the position of Chief Scientific Officer (the "Position");

Whereas the Employee desires to accept employment by the Company and to fulfill the responsibilities of the Position; and

Whereas the parties desire to set forth the conditions of employment pursuant to which the Company will employ the Employee;

It is hereby agreed by and between the parties as follows:

1. Preamble

The preamble to this Agreement and any attachments thereto are an integral part of this Agreement.

2. Job Description

The Employee shall be responsible for the scientific direction and activities of the Company. He shall report directly to the Chief Executive Officer. The description of responsibilities set forth herein shall serve as a general statement of the duties, responsibilities and authority of the Employee. Additional duties, responsibilities and authority may be assigned to the Employee by the Chief Executive Officer from time to time in his discretion.

3. Working Hours

The Employee shall be employed by the Company on a full-time basis, namely for not less than forty-four (44) hours per week (inclusive of mealtime). The Employee agrees that his position is considered to be a management position as defined in the Hours of Work and Rest Law - 1951, which requires a special measure of personal trust. Accordingly, the provisions of the Hours of Work and Rest Law - 1951 shall not apply and the Employee shall not be entitled to receive any additional payment for his work other than those that are set forth in this Agreement.

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4. Term of Agreement

This Agreement shall take effect from the Effective Date and shall remain in effect unless it is earlier terminated as hereinafter provided.

5. Annual Salary

5.1. The Employee's annual salary shall be as follows:

5.1.1. The Employee shall receive an annual gross salary of one hundred and fifty thousand dollars (\$150,000), payable in New Israeli Shekels according to the representative rate of exchange in effect each month at the time Company salaries are calculated. The Employee's salary shall be paid in twelve equal installments, monthly in arrears.

5.1.2. The salary set forth in paragraph 5.1.1, above, shall be

referred to as the "Global Salary". The linkage of the Global Salary to the United States dollar is in lieu of any generally-applicable increases, whether the statutory cost of living increase ("Tosefet Yoker") or any other industry-wide increase applicable as the result of collective bargaining agreements or other order of the Ministry of Labor and Welfare (such as Tzavei Harhava). By signing this Agreement and accepting employment pursuant to its terms, the Employee represents that s/he will not claim any such increase.

5.1.3. The Employee shall not be entitled to receive from the Company any salary or payment of any kind other than the Global Salary and other payments specifically set forth in this Agreement or properly authorized by the Board of Directors and, should the Employee be a director of the Company at the time such other payments not specifically included in this Agreement are made, by the shareholders of the Company.

5.2. Other Terms of Employment

5.2.1. Bonuses: The Employee shall be eligible to receive one or more bonuses during any calendar year in the discretion of the Chief Executive Officer, acting in consultation with the Board of Directors.

5.2.2. Expenses: The Employee shall be entitled, in accordance with the Company's standard policy in effect from time to time, to be reimbursed for expenses incurred in Israel and abroad in connection with Company business against receipt by the Company of appropriate vouchers, receipts or other proof of the Employee's expenditures.

5.2.3. Continuing Education Fund: The Employee shall be entitled to participate in the Company's continuing education fund (Keren Hishtalmut). The Company shall contribute an amount equal to five percent (5%) of the Employee's Global Salary and shall deduct two and a half percent (2.5%) of the Employee's Global Salary and transfer

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it as the Employee's contribution. The Employee consents to the deduction of this amount as his contribution to the continuing education fund. These contributions will be calculated up to the permissible tax-exempt salary ceiling according to the income tax regulations in effect from time to time. If the amount of the Company's contribution is greater than permitted by those regulations, the Employee shall not have the right to receive the excess amount.

5.2.4. Reserve Duty: The Employee shall be entitled to receive his full Global Salary and other payments while performing reserve duty, provided that any amount received by the Employee from the I.D.F. or any other source (excluding Damei Calcala) is transferred to the Company or, in the alternative, an amount equal to that received from the I.D.F. or any other source is deducted from the Global Salary payable to the Employee.

5.2.5. Annual Leave and Recreation Pay (Damei Havra'a): The Employee shall be entitled to twenty (20) working days

of paid annual leave each year. The Employee shall not be allowed to accrue more than thirty (30) working days of annual leave except in unusual circumstances and with the permission of the Company. Should the Employee's annual leave balance exceed thirty (30) days at the end of any calendar year, the excess number of days shall be paid out in accordance with the provisions of the Annual Leave Law - 1951. The Company shall also pay the Employee for five (5) days of recreation (damei havra'a) each year in accordance with the law and the normal practice of the Company in effect from time to time.

- 5.2.6. **Sickness and Disability Insurance:** The Employee shall be entitled to the number of days for sick leave permitted by law. Compensation for sick days utilized shall be paid according to his Global Salary only upon the presentation of medical documentation as required by the Company. The Employee shall be covered by disability insurance that provides monthly compensation. The cost of such insurance shall be borne by the Company. Notwithstanding the foregoing, the Employee shall not be entitled to receive compensation for sick leave if such compensation is covered by the Employee's disability insurance referred to above. However, should the amounts received by the Employee pursuant to such disability insurance be less than the amount that is properly payable as compensation for the Employee's available sick leave, according to the Global Salary, the Company shall pay the difference. It is understood and agreed that unused sick leave cannot be redeemed by the Employee. For the avoidance of doubt, it is understood and agreed that the payments made by the Company in consideration of sick leave covers all obligations of the Company pursuant to the Sick Leave Law - 1976.
- 5.2.7. **Automobile Maintenance:** The Employee shall be entitled to receive a monthly amount of the New Israeli Shekel equivalent of fourteen thousand four hundred (\$14,400) to reimburse him for the upkeep and

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maintenance entailed in the use of his personal automobile for business purposes.

5.3. **Pension Benefits and Severance Payments**

- 5.3.1. The Company will pay into a Provident Fund (Kupat Gemel) (in the meaning of paragraph 47 of the Income Tax Ordinance) in the form of Manager's Insurance or another form according to the Employee's choice and the Company's agreement, an amount equal to thirteen and one third percent (13 1/3 %) from the monthly Global Salary paid to the Employee, and the Employee will pay, on his own account, an amount equal to five percent (5%) from that Global Salary. The Employee agrees that the Company shall be entitled to deduct the Employee's contribution (5%) from the Employee's salary. For the avoidance of doubt, it is clarified that under no circumstance shall the Company's contribution exceed thirteen and one third percent (13 1/3 %) of the Global Salary in any one month.
- 5.3.2. Five percent (5%) of the thirteen and one third percent (13 1/3 %) that the Company contributes as set forth

above and the five percent (5%) the Employee contributes, together with linkage and interest on the contributions, will be treated as pension benefits for the Employee or his survivors. The remaining eight and one third percent (8 1/3 %) of the Company's contribution, together with linkage and interest on that portion, will be utilized to pay severance benefits to the Employee or his descendants in the event of the termination of his employment with the Company, except in those circumstances discussed below.

5.3.3. In the event that the Employee chooses Manager's Insurance, the policy shall belong to the Company as long as it employs the Employee and it makes the required payments on the policy. The payments made into the Kupat Gemel pursuant to paragraph 5.3.1, above, shall fulfill the Company's obligation for severance payment pursuant to the Severance Compensation Law - 1963. Upon the termination of the Employee's employment, for whatever reason, and upon his final departure from the Company, the Employee or his descendants shall be entitled to receive the ownership of all rights which have accrued on his behalf in the Kupat Gemel or the ownership of the Manager's Insurance policy, as appropriate and subject to the provisions of section 6, below.

5.3.4. In the event that there is a difference in the Employee's favor between the amount to which he is entitled to receive pursuant to the Severance Compensation Law - 1963 and the severance payment amount (including linkage and interest) that is in the Kupat Gemel or Manager's Insurance policy, the Company shall pay that difference. The Company shall be obligated to pay such difference whether the termination of the Employee's employment is at the Employee's initiative or the Company's, except in the case of termination pursuant to paragraphs 6.3 and 6.4, below. For the avoidance of doubt, it is

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understood that in the event that the severance payment amount (including linkage and interest) that is in the Employee's Kupat Gemel or Manager's Insurance policy exceeds the amount to which he is entitled to receive as severance compensation pursuant to the Severance Compensation Law - 1963, the difference shall not be transferred to the Employee, including to his pension account, but shall be the property of the Company.

6. Termination of Employment

6.1. Either party may terminate the Employee's employment with the Company without cause at any time upon three (3) month's notice. The Company shall have the right, in its sole discretion, to require the Employee to continue working for the Company during the notice period.

6.2. The Employee's employment shall be terminated by his death or disability. (For purposes of this section, "disability" shall be deemed to have occurred if the Employee is unable, due to any physical or mental disease or condition, to perform his normal duties of employment for 90 consecutive days or 120 days in any twelve month period.) In such an event, he shall be entitled to

continue to receive his annual salary for three (3) months following his last day of actual employment by the Company. Such amount shall be in addition to any severance payment he is entitled to receive according the provisions of the Severance Compensation Law - 1963. In addition, the Board of Directors shall take the necessary steps so that (a) any outstanding, but unvested, options granted to the Employee shall vest upon the effective date of his termination; and (b) the period during which the Employee shall be permitted to exercise such options shall be extended to two (2) years from the effective date of his termination as defined in the Share Option Plan governing the options in question. Should the Employee's employment be terminated as a result of his death, the benefits granted herein, shall be granted instead to his lawful heir or heirs.

6.3. Notwithstanding the foregoing, the Company may terminate the Employee immediately and without prior notice in the following circumstances: (a) a material breach of the Employee's obligations pursuant to paragraphs 8.8, 8.9 and 8.10 (confidentiality and non-competition); (b) a material breach by the Employee of any other provision of this Agreement, which is not cured by the Employee within fifteen (15) days after receiving notice thereof from the Company containing a description of the breach or breaches alleged to have occurred; (c) the habitual neglect or gross failure by the Employee to adequately perform the duties of his position; (d) any act of moral turpitude or criminal action connected to his employment with the Company or his place of employment; or (e) the Employee's refusal to comply with or his violation of lawful instructions of the Chief Executive Officer or the Board of Directors.

6.4. In the event that Employee's employment has been terminated in accordance with paragraph 6.3, above, the Employee shall not be entitled to receive any of the severance payments set forth in paragraphs 5.3.4 and 6.2, above.

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7. Taxes and Other Payments

7.1. Unless otherwise specifically provided for in this Agreement, the Company shall not be liable for the payment of taxes or other payments for which the Employee is responsible as result of this Agreement or any other legal provision, and the Employee shall be personally liable for such taxes and other payments.

7.2. The Employee hereby agrees that the Company shall deduct from his Global Salary the Employee's national insurance fees, income tax and other amounts required by law or the terms of this Agreement. The Company shall provide the Employee with documentation of such deductions.

8. The Obligations of the Employee

8.1. The Employee agrees to devote his entire business time, energy, abilities and experience to the performance of his duties, effectively and in good faith.

8.2. Keryx shall not require the Employee to act on its behalf in any manner that would represent a conflict between the interests of Keryx, on one hand, and the Weizmann Institute, on the other hand. Such acts shall include, but not be limited to, the carrying out of research for Keryx that overlaps or continues research he has carried out at the Weizmann Institute as of the

date of this Agreement; the evaluation of technology belonging to the Weizmann Institute that Keryx is interested in licensing; and conducting negotiations on Keryx's behalf with the Weizmann Institute in connection with technology belonging to the Weizmann Institute that Keryx is interested in licensing.

- 8.3 During the period of his employment, the Employee shall not be employed, whether or not during regular business hours, for pay by any other party other than the Company. The Employee must receive the prior written consent of the Company before assuming an unpaid position outside the Company. Notwithstanding the foregoing, the Employee may, with the written permission of the Chairman of the Board of Directors, become a member of the Board of Directors of another company and may accept any compensation in connection with such position.
- 8.4. The Employee agrees to immediately inform the Company of any Company issue or transaction in which the Employee has a direct or indirect personal interest and/or where such issue or transaction could cause a conflict of interest for the Employee in the fulfillment of his responsibilities as an employee of the Company.
- 8.5. The Employee hereby gives irrevocable instructions and permission to the Company to deduct from any amounts owed to the Employee by the Company, including amounts payable as severance compensation, (a) any debt he has or will have to the Company; and/or (b) any amount that was wrongfully or mistakenly paid to him by the Company. Any such amounts to

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be deducted shall be calculated in real terms as of the date of the deduction, including linkage to cost of living index.

- 8.6. The Company may at its discretion and at any time apply for and procure as owner and for its own benefit and at its own expense, insurance on the life of the Employee ("Key Man Life Insurance") in such amounts and in such form or forms as the Company may choose. The Employee shall cooperate with the Company in procuring such insurance and shall, at the Company's request, submit to such medical examinations, supply such information and execute such documents as may be required by the insurance company or companies to whom the Company has applied for such insurance. Neither the Employee nor any of his dependents shall have any interest whatsoever in any such policy or policies, or in the proceeds thereof.
- 8.7. The Employee declares that the terms and conditions of his employment are personal and confidential and will not be disclosed by him.
- 8.8. The Employee declares that he is free to enter into this Agreement and that he has no obligations of any kind to any third party that would impair this Agreement, either as an employee or an independent contractor. The Employee further declares that as long as he remains an employee of the Company, he will not incur any such obligations.
- 8.9. The Employee agrees to keep confidential (a) all professional, scientific, commercial, and business information; and (b) any other information or document that comes to the Employee's knowledge in connection with the affairs of the Company (collectively, the "Confidential Information"), and agrees not to use or exploit the Confidential Information or to disclose it

to any third party where such use, exploitation or disclosure in not directly related to the affairs of the Company, unless the Company gives prior written authorization of such disclosure. Nothing in the foregoing shall be construed to prevent the Employee from disclosing or using any information which the Employee can show by written documentation was in the public domain or enters into the public domain through no improper act on the Employee's part or on the part of any of the Company's employees or was in his possession prior to his joining the Company or disclosed to the Employee after he has left the Company on a non-confidential basis by a person authorized to do so. The Employee agrees immediately to return all such material and reproductions in his possession to the Company upon request and in any event upon termination of employment.

- 8.10. The Employees agrees that during his employment by the Company and thereafter he (a) will not disseminate or otherwise make use of the Confidential Information or of other non-public information of which he learned while working for the Company, except where such dissemination or use is directly related to the affairs of the Company; (b) will maintain the confidentiality of the Confidential Information; and (c) will not in any way act to injure the reputation of the Company or any of its affiliated companies.

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- 8.11. The Employee understands and recognizes that his services to the Company are special and unique and agrees that, during the term of this Agreement, and for a period of 12 months from the date of termination of his employment hereunder, he shall not in any manner, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), enter into or engage in any business directly competitive with the Company's business, either as an individual for his own account, or as a partner, joint venturer, employee, agent, consultant, salesperson, officer, director or shareholder of a Person operating or intending to operate within the area that the Company is, at the date of termination, conducting its business (the "Restricted Businesses"); provided, however, that nothing herein will preclude the Employee from holding one percent (1%) or less of the stock of any publicly traded company or from holding a position with a Person who does not engage in a business directly competitive with the Restrictive Businesses so long as the Employee works in a division of such Person which carries on a bona fide business which is not directly competitive with the Restricted Businesses.

- 8.12. For a period of 12 months after the termination of this Agreement, the Employee shall not interfere with or disrupt or attempt to disrupt the Company's business relationship with any of its partners, customers or suppliers.

- 8.13. During the term of this Agreement, and for 12 months thereafter, the Employee shall not, directly or indirectly, without the prior written consent of the Company:

(a) solicit or induce any employee of the Company or any affiliated company to leave the employ of the Company or any affiliated company or hire for any purpose any employee of the Company or any affiliated company or any employee who has left the employment of the Company or any affiliated company within six months of the termination of said employee's employment with the Company or any affiliated company; or

(b) solicit or accept employment or be retained by any party who, at any time during the term of this Agreement, was a customer or supplier of the Company or any affiliated company where his position will be related to the business of the Company or any affiliated company; or

(c) solicit or accept the business of any customer or supplier of Keryx or any Affiliate with respect to products similar to those supplied by Keryx.

8.14 In the event that the Employee breaches any provisions of paragraphs 8.11, 8.12 and/or 8.13, or there is a threatened breach, then, in addition to any other rights which the Company may have, the Company shall be entitled, without the posting of a bond or other security, to injunctive relief to enforce the restrictions contained herein. In the event that an actual proceeding is brought in equity to enforce these provisions, the Employee shall not argue

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as a defense that there is an adequate remedy at law nor shall the Company be prevented from seeking any other remedies that may be available.

8.15. Upon termination of his employment, the Employee agrees to assist the Company with an orderly transition of his responsibilities and to return to the Company any documents, information and/or materials that were given to him or which were created by him in connection with his employment.

9. Intellectual Property Rights

The provisions of Section 7 of the agreement executed on August __, 2001, between the Employee and Keryx Biopharmaceuticals, Inc. are hereby incorporated by reference and shall govern the intellectual property rights and obligations the Employee and the Company.

10. Indemnification

The Company, or its parent company, and the Employee shall execute an agreement that provides for the indemnification of the Company's officers and directors. In addition, the Company, or its parent company, shall maintain an appropriate level of Directors and Officers Liability coverage, which coverage shall include the Employee.

11. General

11.1. It is agreed that the provisions of this Agreement represent the full scope of the agreement between the parties and that neither side shall be bound by any promises, declarations, exhibits, agreements or obligations, oral or written, that are not included in this Agreement prior to its execution. Any changes or amendments to this Agreement must be in writing and signed by both parties.

11.2. This Agreement shall be governed by, and construed and interpreted under, the laws of the State of Israel. The parties agree that any legal claim lodged by one party against the other arising from the terms of this Agreement shall be adjudicated only by the appropriate court in Jerusalem, Israel.

11.3. If any provision of this Agreement shall be declared by a court

of competent jurisdiction to be invalid, illegal or incapable of being enforced in whole or in part, the remaining conditions and provisions or portions thereof shall nevertheless remain in full force and effect and enforceable, and no provision shall be deemed dependent upon any other covenant or provision unless so expressed herein.

- 11.4. The rights, benefits, duties and obligations under this Agreement shall inure to, and be binding upon, the Company, its successors and assigns, and upon the Employee and his legal representatives. This Agreement constitutes a personal service agreement, and the performance of the Employee's obligations hereunder may not be transferred or assigned by the Employee.

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- 11.5 The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith or with any other term, condition or provision hereof, and said terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective or any purpose whatsoever unless such waiver is in writing and signed by such party.

- 11.6 The headings of Sections are inserted for convenience and shall not affect any interpretation of this Agreement.

12. Notices

- 12.1. A notice that is sent by registered mail to a party at its address as set forth in paragraph 12.2, below, shall be deemed received three (3) days after its posting, and the receipt stamped by the post office shall represent definitive evidence of the date of mailing.

- 12.2. The addresses of the parties for the purposes of this Agreement are:

Keryx Biomedical Technologies Ltd.:

Kiryat Mada 5
Jerusalem 91236

Employee:

IN WITNESS WHEREOF the parties have hereunto set their hands at the place and on the date first above written.

Keryx Biomedical Technologies Ltd.

By

/s/ Ira Weinstein

/s/ Rony Seger

Chief Operating Officer

Employee

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EMPLOYMENT AGREEMENT

This Agreement by and between Keryx Biopharmaceuticals, Inc. ("Keryx"), a Delaware corporation having an address at 101 Main Street, Cambridge, Massachusetts, and Thomas J. Humphries, M.D., an individual residing at _____ ("Humphries").

WITNESSETH:

WHEREAS, the Corporation desires to employ Humphries as Senior Vice President, Clinical Development of Keryx and Humphries desires to be employed by the Keryx as Senior Vice President, Clinical Development of Keryx, all pursuant to the terms and conditions hereinafter set forth;

NOW THEREFORE, in consideration of the foregoing and the mutual promises and covenants herein contained, it is agreed as follows:

1. EMPLOYMENT DUTIES

(a) Keryx hereby engages and employs Humphries, and Humphries accepts engagement and employment, as Senior Vice President, Clinical Development of Keryx, to direct, supervise and have responsibilities for the clinical development activities of Keryx and for any other appropriate areas and tasks which the Board of Directors and/or the Chief Executive Officer may assign to him. Humphries will devote his entire business time, energy, abilities and experience to the performance of his duties, effectively and in good faith. Further, during the Term, Humphries shall not render services as an employee, consultant or otherwise, whether or not during regular business hours, for pay to any other party other than the Corporation without the written permission of the Chief Executive Officer. Humphries acknowledges and agrees that the performance by Humphries of his duties hereunder may require significant domestic and international travel by Humphries.

(b) Humphries agrees that he shall have relocated to the Boston area within four (4) months from the date he executes this Agreement. Keryx agrees to reimburse Humphries for relocation expenses in accordance with, and up to the limits set forth in Paragraph 3(e), below.

2. TERM

Humphries's employment hereunder shall commence on November 9, 2001, and shall continue unless sooner terminated as hereinafter provided in Paragraph 8 (the "Term").

3. COMPENSATION

(a) As compensation for the performance of his duties on behalf of Keryx, Humphries shall be compensated as follows:

(i) Base Salary and Annual Increases. Humphries shall receive an annual gross base salary of two hundred and forty thousand dollars (\$240,000) payable in accordance with the Corporation's payroll policies and subject to standard payroll deductions and withholdings. The Corporation's Board of Directors shall review Humphries's performance and the Corporation's financial and operating results on at least an annual basis, and may adjust Humphries's base salary as it, in its reasonable discretion, deems appropriate based on such review. In addition, in the event that the Corporation closes at least two outlicensing deals worth at least \$10 million subsequent to the start of Humphries' employment, his base salary will be increased by \$10,000.

(ii) Bonus. Humphries shall be eligible to receive one or more bonuses during any calendar year in the discretion of the Chief Executive Officer, acting in consultation with the Board of Directors. In addition,

(iii) Equity. The Corporation, subject to the approval of the Board of Directors, will grant Humphries options (the "Options") to purchase 81,000 shares of the common stock of the Corporation (the "Initial Grant") at an exercise price equal to the closing price of the Corporation's Common Stock

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on Nasdaq on the day prior to the start of Humphries's employment. (the "Exercise Price"), which options shall be exercisable for a period of 10 years from the date of issuance. Humphries's Options will be granted under the Corporation's 2000 Stock Option Plan (the "Plan") and will be subject to the terms and conditions thereof, including any Stock Option Agreement entered into by Humphries and the Corporation thereunder. In accordance with the Plan, should any change be made to the Common Stock by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, appropriate adjustments shall be made to (A) the total number and/or class of securities subject to such options and (B) the Exercise Price in order to reflect such change and thereby preclude a dilution or enlargement under such options. The Initial Grant shall vest as follows: 27,000 after six months of employment; 27,000 after 18 months of employment; and 27,000 after 30 months of employment; provided that at the time of vesting, Humphries is employed by the Corporation or by a parent, subsidiary or affiliate of the Corporation. Additionally, Humphries may be entitled to further annual grants of options in accordance with the Corporation's executive compensation plans taking into account his role as part of senior management.

(b) Expenses. Keryx shall reimburse Humphries for all normal, usual and necessary expenses incurred by Humphries in furtherance of the business and affairs of Keryx, including travel and entertainment, against receipt by Keryx of appropriate vouchers or other proof of Humphries's expenditures and otherwise in accordance with such Expense Reimbursement Policy as may from time to time be adopted by the Board of Directors of Keryx.

(c) Annual Leave and Holidays. Humphries shall be entitled during the term of this Agreement to twenty (20) business days of annual leave per year as well as the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the day following, and Christmas Day.

(d) Employee Benefits. During the Term of his employment, Humphries shall be entitled to participate in all employee and fringe benefit plans and programs generally offered to other members of the Corporation's management who are similarly situated, including, without limitation, any pension, profit sharing, incentive, retirement, insurance, health and disability benefits and plans, to the extent that Humphries is eligible under and subject to the provisions of such plans. The Corporation reserves its right to modify or terminate any of its employee and fringe benefit plans and programs at any time.

(e) Relocation Expenses. Upon the presentation of acceptable documentation, Keryx will reimburse Humphries for certain reasonable expenses actually incurred in connection with his relocation to the Boston area, as follows:

(i) Costs incurred in reasonable number of trips to the Boston area to find a house, including airfare, hotel, rental car and food;

(ii) Out of pocket costs incurred in selling his current residence, including agent, broker and/or legal fees, up to a maximum

of \$15,000; and

(iii) Out of pocket costs incurred in moving from his present location to the Boston area, including transportation for Humphries (and his family) and moving expenses for personal belongings.

(iv) One point on a mortgage on his new house in the Boston area, up to a maximum of \$4,000.

Humphries's salary shall be increased temporarily to cover any taxes resulting from the inclusion of any such relocation payments included in his salary.

(f) Bridge Loan. If necessary, the Corporation will grant Humphries a short-term bridge loan in the event that he has not sold his current house by the time he is required to pay for his new house in the Boston area. The terms of such of a loan, if necessary, shall include, but not be limited to, the following:

(i) A maximum loan principal of \$200,000;

(ii) A maturity date to occur on the earlier of the closing of the sale of Humphries' current house or six (6) months;

(iii) Market interest rate; and

(iv) Appropriate security.

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4. REPRESENTATIONS AND WARRANTIES BY HUMPHRIES AND KERYX

(a) Humphries hereby represents and warrants to Keryx as follows:

(i) Neither the execution and delivery of this Agreement nor the performance by Humphries of his duties and other obligations hereunder violate any statute, law, determination or award, or conflict with or constitute a default under (whether immediately, upon the giving of notice or lapse of time or both) any prior employment agreement, contract, or other instrument to which Humphries is a party or by which he is bound.

(ii) Humphries has the full right, power and legal capacity to enter and deliver this Agreement and to perform his duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of Humphries enforceable against him in accordance with its terms. No approvals or consents of any persons or entities are required for Humphries to execute and deliver this Agreement or perform his duties and other obligations hereunder.

(b) Keryx hereby represents and warrants to Humphries as follows:

(i) Keryx is duly organized, validly existing and in good standing under the laws of the State of Delaware, with all requisite corporate power and authority to own its properties and conduct its business in the manner presently conducted.

(ii) Keryx has the full power and authority to enter into this Agreement and to incur and perform its obligations hereunder.

(iii) The execution, delivery and performance by Keryx of this Agreement does not conflict with or result in a material breach or violation of or constitute a material default under (whether immediately, or upon the giving of notice or lapse of time or both) the certificate of incorporation or by-laws of Keryx, or any agreement or instrument to which Keryx is a party or by which Keryx or any of its properties may be bound or affected.

5. CONFIDENTIAL INFORMATION

Humphries agrees to sign and comply with the Corporation's Proprietary Information and Inventions Agreement, annexed hereto as Attachment A.

6. NON-COMPETITION

(a) Humphries understands and recognizes that his services to Keryx are special and unique and agrees that, during the Term, and for a period of 12 months from the date of termination of his employment hereunder, he shall not in any manner, directly or indirectly, on behalf of himself or any person, firm, partnership, joint venture, corporation or other business entity ("Person"), enter into or engage in any business directly competitive with Keryx's business, either as an individual for his own account, or as a partner, joint venturer, treasurer, agent, consultant, salesperson, employee, officer, director or shareholder of a Person operating or intending to operate within the area that Keryx is, at the date of termination, conducting its business (the "Restricted Businesses"); provided, however, that nothing herein will preclude Humphries from holding one percent (1%) or less of the stock of any publicly traded Corporation.

(b) In the event that Humphries breaches any provisions of this Section 6 or there is a threatened breach, then, in addition to any other rights which Keryx may have, Keryx shall be entitled, without the posting of a bond or other security, to injunctive relief to enforce the restrictions contained herein. In the event that an actual proceeding is brought in equity to enforce the provisions of this Section 6, Humphries shall not argue as a defense that there is an adequate remedy at law nor shall Keryx be prevented from seeking any other remedies that may be available.

7. NON-SOLICITATION AND NON-INTERFERENCE

During the Term, and for 12 months thereafter, Humphries shall not, directly or indirectly, without the prior written consent of Keryx:

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(a) solicit or induce any employee of Keryx or any subsidiary, parent, affiliate or successor ("Affiliate") of Keryx to leave the employ of Keryx or any Affiliate or hire for any purpose any employee of Keryx or any Affiliate or any employee who has left the employment of Keryx or any Affiliate within six months of the termination of said employee's employment with Keryx; or

(b) interfere with or disrupt or attempt to disrupt Keryx's or its Affiliates' business relationship with any of their partners, service providers, clients, customers and/or suppliers.

8. TERMINATION

(a) Either party may terminate Humphries's employment with the Corporation without cause at any time upon ninety (90) days' notice. The Corporation shall have the right, in its sole discretion, to require Humphries to continue working for the Corporation during the notice period. If the Corporation terminates Humphries without cause pursuant to this section, and only if Humphries executes a waiver and release of claims substantially in the form set forth in Attachment B, attached hereto, the Board of Directors shall take the necessary steps so that (i) any outstanding, but unvested, options granted to the Employee shall vest upon the effective date of his termination; and (ii) the period during which the Employee shall be permitted to exercise such options shall be extended to two (2) years from the effective date of his termination as defined in the Stock Option Plan governing the options in question.

(b) Humphries's employment shall be terminated by his death or disability. (For purposes of this section, "disability" shall be deemed to have

occurred if Humphries is unable, due to any physical or mental disease or condition, to perform his normal duties of employment for 120 consecutive days or 180 days in any twelve-month period.) In such an event, he shall be entitled to continue to receive his base salary for three (3) months following his last day of actual employment by the Corporation. In addition, the Board of Directors shall take the necessary steps so that (a) any outstanding, but unvested, options granted to the Employee shall vest upon the effective date of his termination; and (b) the period during which the Employee shall be permitted to exercise such options shall be extended to two (2) years from the effective date of his termination as defined in the Share Option Plan governing the options in question. Should the Employee's employment be terminated as a result of his death, the benefits granted herein, shall be granted instead to his lawful heir or heirs. In either case (disability or death), accelerated vesting and extended exercise of the options will only be granted if Humphries or, in the case of his death, his legal successor, together with his lawful heir or heirs, execute a waiver and release of claims substantially in the form set forth in Attachment B hereto.

(c) Notwithstanding the foregoing, the Corporation may terminate Humphries immediately and without prior notice in the following circumstances: (a) a material breach of Humphries's obligations and/or warranties pursuant to Sections 1, 4(a), 5, 6 and/or 7; (b) a material breach by Humphries of any other provision of this Agreement, which is not cured by Humphries within fifteen (15) days after receiving notice thereof from the Corporation containing a description of the breach or breaches alleged to have occurred; (c) the habitual neglect or gross failure by Humphries to adequately perform the duties of his position; (d) any act of moral turpitude or criminal action connected to his employment with the Corporation or his place of employment; or (e) Humphries's refusal to comply with or his violation of lawful instructions of the Chief Executive Officer or the Board of Directors.

(d) In the event that Humphries's employment has been terminated in accordance with Section 8(c), above, Humphries shall not be entitled to receive any of the severance benefits set forth in Section 8(a) or (b), above.

9. INDEMNIFICATION

The Corporation shall take whatever steps are necessary to establish a policy of indemnifying its officers, including, but not limited to Humphries, for all actions taken in good faith in pursuit of their duties and obligations to the Corporation. Such steps shall include, but shall not necessarily be limited to, the obtaining of an appropriate level of Directors and Officers Liability coverage.

10. NOTICES

Any notice or other communication under this Agreement shall be in writing and shall be deemed to have been given when delivered personally against receipt thereof; two (2) business days after being sent by Federal Express or similar internationally recognized courier service; or seven (7)

business days after being mailed registered or certified mail, postage prepaid, return receipt requested, to either party at the address set forth above, or to such other address as such party shall give by notice hereunder to the other party.

11. SEVERABILITY OF PROVISIONS

If any provision of this Agreement shall be declared by a court of competent jurisdiction to be invalid, illegal or incapable of being enforced in whole or in part, the remaining conditions and provisions or portions thereof shall nevertheless remain in full force and effect and enforceable to the extent they are valid, legal and enforceable, and no provision shall be deemed

dependent upon any other covenant or provision unless so expressed herein.

12. ENTIRE AGREEMENT; MODIFICATION

This Agreement contains the entire agreement of the parties relating to the subject matter hereof, and the parties hereto have made no agreements, representations or warranties relating to the subject matter of this Agreement that are not set forth herein. No modification of this Agreement shall be valid unless made in writing and signed by the parties hereto.

13. BINDING EFFECT

The rights, benefits, duties and obligations under this Agreement shall inure to, and be binding upon, Keryx, its successors and assigns, and upon Humphries and his legal representatives. This Agreement constitutes a personal service agreement, and the performance of Humphries's obligations hereunder may not be transferred or assigned by Humphries.

14. NON-WAIVER

The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and said terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party.

15. GOVERNING LAW

This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the Commonwealth of Massachusetts without regard to principles of conflicts of law. Additionally, the prevailing party in any litigation shall be entitled to an additional award of its attorney fees, cost and expenses.

16. REMEDIES FOR BREACH

Humphries understands and agrees that any breach of Sections 1, 4(a) 5, 6 and/or 7 of this Agreement by him could cause irreparable damage to Keryx and to the Affiliates, and that monetary damages alone would not be adequate and, in the event of such breach, Keryx shall have, in addition to any and all remedies of law, the right to an injunction, specific performance or other equitable relief to prevent or redress the violation of Keryx's rights under such Sections.

17. HEADINGS

The headings of paragraphs are inserted for convenience and shall not affect any interpretation of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

EMPLOYEE:

By: /s/ Thomas J. Humphries, MD

Name: Thomas J. Humphries, MD

KERYX BIOPHARMACEUTICALS, INC.

By: /s/ Bob Gallahue

Name: Bob Gallahue
Title: CFO & Treasurer

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ATTACHMENT A

Proprietary Information and Inventions Agreement

In consideration of my employment or continued employment by Keryx Biopharmaceuticals, Inc. (together with any subsidiary of Keryx Biopharmaceuticals, Inc., the "Company"), and the compensation now and hereafter paid to me, I hereby agree as follows:

1. Recognition of Company's Rights; Nondisclosure. At all times during the term of my employment and thereafter, I will hold in strictest confidence and will not disclose, use, lecture upon or publish any of the Company's Proprietary Information (defined below), except as such disclosure, use or publication may be required in connection with my work for the Company, or unless an officer of the Company expressly authorizes such in writing.

The term "Proprietary Information" shall mean trade secrets, confidential knowledge, data or any other proprietary information of the Company. By way of illustration but not limitation, "Proprietary Information" includes (a) inventions, mask works, trade secrets, ideas, processes, formulas, source and object codes, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques (hereinafter collectively referred to as "Inventions"); and (b) information regarding plans for research, development, new products, regulatory matters, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, suppliers and customers; and information regarding the skills and compensation of other employees of the Company.

2. Third Party Information. I understand, in addition, that the Company has received, and in the future will receive, from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of my employment and thereafter, I will hold Third Party Information in the strictest confidence and will not disclose to anyone (except in connection with my work for the Company), unless expressly authorized by an officer of the Company in writing.

3. Assignment of Inventions

3.1 Assignment

(a) I hereby assign to the Company all my right, title and interest in and to any and all Inventions and all patent rights, copyrights, mask work rights, trademarks, trade secret rights, all other rights throughout the world in connection therewith, and the goodwill associated with all of the foregoing (collectively, "Proprietary Rights"), whether or not patentable or registrable under patent, copyright, trademark or similar statutes, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with the Company. Inventions assigned to, or as directed by, the Company under this Paragraph 3 are hereinafter referred to as "Company Inventions". I agree, upon request, to execute, verify and deliver assignments of the Proprietary Rights to the Company or its designee and I hereby appoint the Company my attorney-in-fact with respect to the Proprietary Rights for the purpose of effecting any or all of the Company's rights to the

Proprietary Rights.

3.1 Government. I also agree to assign to or as directed by the Company all my right, title and interest in and to any and all Inventions, full title to which is required to be assigned to the United States of America by a contract between the Company and United States of America or any of its agencies.

3.2 Works for hire. I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by copyright are "works made for hire", as that term is defined in the United States Copyright Act (17 U.S.C. Section 101).

4. Enforcement of Proprietary Rights. From time to time, I will assist the Company in every proper way to obtain and enforce United States and foreign Proprietary Rights relating to Company Inventions in any and all countries. My obligation to assist the Company with respect to Proprietary

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Rights relating to such Company Inventions in any and all countries shall continue beyond the termination of my employment, but the Company shall compensate me at a reasonable rate after my termination for the time actually spent by me at the Company's request on such assistance.

I hereby waive and quitclaim to the Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Proprietary Rights assigned hereunder to the Company.

5. Obligation to Keep Company Informed. During the period of my employment, I will promptly disclose all Inventions to the Company fully and in writing and will hold such Inventions in trust for the sole right and benefit of the Company. In addition, after termination of my employment, I will promptly disclose all patent applications filed by me within a year after termination of employment.

6. Prior Inventions. Inventions, if any, patented or unpatented, which I made prior to the commencement of my employment with the Company are excluded from the scope of this Agreement. To preclude any possible uncertainty, I have set forth in Exhibit A attached hereto a complete list of all Inventions (i) that I have, alone or jointly with others, conceived, developed or reduced to practice or caused to be conceived, developed or reduced to practice prior to the commencement of my employment with the Company, (ii) that I consider to be my property or the property of third parties and (iii) that I wish to have excluded from the scope of this Agreement. If disclosure of any such Invention on Exhibit A would cause me to violate any prior confidentiality agreement, I understand that I am not to list such Inventions in Exhibit A but am to inform the Company that all such Inventions have not been listed for that reason.

7. No Improper Use of Materials. During my employment by the Company, I will not improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of the Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

8. No Conflicting Obligation. I represent that my performance of all the terms of this Agreement and my performance of my duties as an employee of the Company do not and will not breach any agreement to keep in confidence information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any agreement either written or oral in conflict herewith.

9. Return of Company Documents. When I leave the employ of the Company, I will deliver to the Company any and all drawings, notes, memoranda, specifications, devices, formulas, molecules, cells, storage media, including software, documents and computer printouts, together with all copies thereof, and any other material containing or disclosing any Company Inventions, Third Party Information or Proprietary Information of the Company. I further agree that any property situated on the Company's premises and owned by the Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company personnel at any time with or without notice. Prior to leaving, I will cooperate with the Company in completing and signing the Company's termination statement for technical and management personnel.

10. Legal and Equitable Remedies. Because my services are personal and unique and because I may have access to and may become acquainted with the Proprietary Information of the Company, the Company shall have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief, without bond, without prejudice to any other rights and remedies that the Company may have for a breach of this Agreement, and I waive the claim or defense that the Company has an adequate remedy at law. I shall not, in any action or proceeding to enforce any of the provisions of this Agreement, assert the claim or defense that such an adequate remedy at law exists.

11. Notices. Any notices required or permitted hereunder shall be given to me at the address specified below or at such other address as I shall specify in writing. Such notice shall be deemed given upon personal delivery to the appropriate address or if sent by certified or registered mail, three days after the date of mailing.

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12. General Provisions.

12.1 Governing Law. This Agreement is executed under seal and will be governed by and construed according to the laws of the Commonwealth of Massachusetts.

12.2 Entire Agreement. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter hereof and supersedes and merges all prior discussions between us. No modification or amendment of this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing, signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement. As used in this Agreement, the period of my employment includes any time during which I may be retained by the Company as a consultant.

12.3 Severability. If one or more of the provisions in this Agreement are deemed unenforceable by law, then the remaining provisions will continue in full force and effect.

12.4 Successors and Assigns. This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and its assigns. I may not assign any of my rights, or delegate any of my obligations, under this Agreement.

12.5 Survival. The provisions of this Agreement shall survive the termination of my employment and the assignment of this Agreement by the Company to any successor in interest or other assignee.

12.6 Employment. I agree and understand that nothing in this Agreement shall confer on me any right with respect to continuation of my employment with the Company, or shall it interfere in any way with my right or the Company's right to terminate my employment at any time, with or without cause.

12.7 Waiver. No waiver by the Company of any breach of this Agreement shall be a waiver of any preceding or succeeding breach. No waiver by the Company of any right under this Agreement shall be construed as a waiver of any other right. The Company shall not be required to give notice to enforce strict adherence to all terms of this Agreement.

12.8 Counterparts. This Agreement may be executed in counterparts, all of which together shall for all purposes constitute one Agreement, binding on each of the parties hereto notwithstanding that each such party shall not have signed the same counterpart.

12.9 Jurisdiction and Venue; Waiver of Jury Trial. In case of any dispute hereunder, the parties will submit to the exclusive jurisdiction and venue of any court of competent jurisdiction sitting in Suffolk County, Massachusetts, and will comply with all requirements necessary to give such court jurisdiction over the parties and the controversy. EACH PARTY HEREBY WAIVES ANY RIGHT TO A JURY TRIAL AND TO CLAIM OR RECOVER PUNITIVE DAMAGES.

12.10 Disclosure. I shall disclose the existence and terms of this Agreement to any employer or other person that I may work for or be engaged by after the termination of my employment or engagement at the Company. I agree that the Company may, after notification to me, provide a copy of this Agreement to any business or enterprise (i) which I may directly or indirectly own, manage, operate, finance, join, control or participate in the ownership, management, operation, financing, or control of, or (ii) with which I may be connected with as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise, or in connection with which I may use or permit my name to be used. I will provide the names and addresses of any of such persons or entities as the Company may from time to time reasonably request.

This Agreement shall be effective as of the first day of my employment with the Company, namely -----.

I UNDERSTAND THAT THIS AGREEMENT AFFECTS MY RIGHTS TO INVENTIONS I MAKE DURING MY EMPLOYMENT, AND RESTRICTS MY RIGHTS TO DISCLOSE OR USE THE COMPANY'S CONFIDENTIAL INFORMATION DURING OR SUBSEQUENT TO MY EMPLOYMENT.

I HAVE READ THIS AGREEMENT CAREFULLY AND UNDERSTAND ITS TERMS.

Signature:
/s/ Thomas J. Humphries, MD

Thomas J. Humphries, MD

Date: Nov. 27, 2001

ACCEPTED AND AGREED TO:
Keryx Biopharmaceuticals, Inc.

By: /s/ Bob Gallahue

Signature

Name: Bob Gallahue

Title: CFO & Treasurer

Proprietary Information and Inventions Agreement
EXHIBIT A

ATTACHMENT B

Employee Agreement And Release

Except as otherwise set forth in this Employee Agreement and Release (the "Agreement") between the undersigned and Keryx Biopharmaceuticals, Inc. (the "Corporation"), I hereby release, acquit and forever discharge the Corporation, its parents, affiliates and subsidiaries, and their officers, directors, agents, servants, employees, attorneys, shareholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed, arising out of or in any way related to agreements, events, acts or conduct at any time prior to and including the execution date of this Agreement, including but not limited to: all such claims and demands directly or indirectly arising out of or in any way connected with my employment with the Corporation or the termination of that employment; claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in the Corporation, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law, statute, or cause of action including, but not limited to, Title VII of the Civil Rights Act of 1964, 42 U.S.C.ss. 2000e et seq., the Age Discrimination in Employment Act, 29 U.S.C.ss. 621 et seq. ("ADEA"), the Americans With Disabilities Act of 1990, 42 U.S.C.ss. 12101 et seq., and the Massachusetts Fair Employment Practices Act, M.G.L. c.151B,ss. 1 et seq., all as amended, and all claims arising out of the Fair Credit Reporting Act, 15 U.S.C.ss. 1681 et seq., the Employee Retirement Income Security Act of 1974 ("ERISA"), 29 U.S.C.ss. 1001 et seq., the Massachusetts Civil Rights Act, M.G.L. c.12 ss.ss. 11H and 11I, the Massachusetts Equal Rights Act, M.G.L. c.93ss. 102 and M.G.L. c.214,ss.1C, the Massachusetts Labor and Industries Act, M.G.L. c. 149,ss. 1 et seq., and the Massachusetts Privacy Act, M.G.L. c.214,ss.1B, all as amended;; tort law; contract law; wrongful discharge; discrimination; harassment; retaliation; fraud; defamation; emotional distress; and breach of the implied covenants of good faith and fair dealing.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that the consideration given for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. I further acknowledge that I have been advised by this writing, as required by the ADEA, that; (a) my waiver and release do not apply to any rights or claims that may arise after the execution date of this Agreement; (b) I have been advised hereby that I have the right to consult with an attorney prior to executing this Agreement; (c) I have twenty-one (21) days to consider this Agreement (although I may choose to voluntarily execute this Agreement earlier); (d) I have seven (7) days following the execution of this Agreement by the parties to revoke the Agreement; and (e) this Agreement shall not be effective until the date upon which the revocation period had expired, which shall be the eighth day after this Agreement is executed by me.

In giving this release, which includes claims that may be unknown to me at present, I hereby expressly waive and relinquish all rights and benefits under any law of any jurisdiction with respect to my release of any such presently unknown claims I may have against the Corporation.

Dated: _____

Thomas J. Humphries

MANAGEMENT SERVICES AGREEMENT

THIS MANAGEMENT SERVICES AGREEMENT is made as of the 1st day of November, 2001, by and between Keryx Biopharmaceuticals, Inc., a Delaware corporation (the "Sponsor") and Keryx Biomedical Technologies Ltd. (the "Company") an Israeli company having its registered offices at Kiryat Mada 5, Jerusalem, Israel.

WHEREAS the Sponsor is a biopharmaceutical company engaged in the research and development of biopharmaceutical products for the world market (the "Business");

WHEREAS the Sponsor wishes to engage the services of its subsidiary, the Company, to carry out the services more fully set forth below in connection with the Business; and

WHEREAS the parties entered into a Management Services Agreement on April 6, 2001 (the "First Agreement"), which they now, by mutual consent, wish to cancel and replace with this Agreement.

NOW, THEREFORE, the parties agree as follows:

1. Services

The Company shall, in consultation with the Sponsor:

- 1.1 supervise and monitor the research and development conducted in Israel in connection with the Business;
- 1.2 advise the Sponsor with respect to the direction of the Sponsor's research and product development in connection with the Business; and
- 1.3 report to the Sponsor on the progress of the research and product development being conducted in Israel in connection with the Business; and
- 1.4 continue with research and development, which shall include without limitation, the conducting of clinical trials; and
- 1.5 engage the services of advisory firms, consultants, and professionals, as it deems necessary, in order to better perform the services enumerated above (the "Services") or other services in connection therewith

2. Payment

In consideration for the Services, the Sponsor will pay the Company during the term of this Agreement retroactive to January 1, 2001, the following fees:

- 2.1 until the Company's laboratory is in operation, a monthly fee equal to the amount of 103% of expenses incurred (the "Pre-Lab Fee"), to be adjusted annually between the Sponsor and the Company, plus Value Added Tax ("VAT") thereon, if payable, at the rate applicable at the time of issue by the Company to the Sponsor of a tax invoice in respect of the Services.
- 2.2 subsequent to the beginning of operations in the Company's laboratory, a monthly fee equal to the amount of 112.5% of expenses incurred (the "Post-Lab Fee"), to be adjusted annually between the Sponsor and the Company, plus Value Added Tax ("VAT") thereon, if payable, at the rate applicable at the time of issue by the Company to the Sponsor of a tax invoice in respect of the Services.

- 2.3 The Pre-Lab or Post-Lab Fee, as appropriate, shall be paid quarterly in

advance on the first business day of January, April, July and October in each year during the term hereof.

3. Effective Period

This Agreement shall be effective as of January 1, 2001, and shall remain in effect until either party terminates the Agreement by giving the other party ninety (90) days prior written notice of termination.

4. Relationship of Parties

The Company is an independent contractor and is not an agent or employee of, and has no authority to bind, the Sponsor by contract or otherwise, unless and to the extent expressly authorized in writing by the Board of Directors of the Sponsor, whether by grant of power of attorney or otherwise.

5. Confidentiality

The Sponsor and the Company warrant and undertake that during the term of this Agreement and subsequent thereto, it shall maintain confidentiality and also be liable for its employees and/or representative and/or persons acting on its behalf maintaining absolute confidentiality of all information, details and data which is in and/or comes to its knowledge and/or that of its employees and/or representatives and/or persons acting on its behalf directly or indirectly relating to the Services, the Know How or any products based on the Know How. The Sponsor and the Company undertake not to convey or disclose (except in connection with the fulfillment of its duties under this Agreement) anything in connection with the foregoing. "Confidential Information" shall include, but shall not be limited to, confidential or proprietary scientific or technical information or data, business plans, trade secrets, or other confidential information relating to customers, development programs, costs, marketing, trading, investment, sales activities, promotion, credit and financial data, manufacturing processes, financing methods, plans or the business and affairs of the Sponsor or the Company generally, or of any subsidiary or affiliate of the Sponsor or the Company. "Confidential Information" shall not include, however, information in the public domain, information disclosed to the Sponsor or the Company by a third party entitled to disclose it without any obligation of confidentiality, or, information already known to the Sponsor or the Company prior to its receipt.

6. Intellectual Property

6.1 The Company agrees that all intellectual property including, but without limitation, patents, patentable discoveries, copyrights, mask works, trade secrets, know-how and other intellectual property developed or conceived by the Company, its employees, consultants or agents during the terms of this Agreement and arising from services performed hereunder (the "Intellectual Property") shall be and are hereby assigned to the Sponsor as its sole and exclusive property.

6.2 The Company agrees to ensure that each of its employees, consultants and agents are bound by a written agreement that assigns any Intellectual Property to the Company or directly to the Sponsor.

6.3 The Company shall assist the Sponsor, at the Sponsor's expense, to obtain the appropriate protection for the Intellectual Property and will make available to the Sponsor, upon request, all information in the possession of the Company, its employees, consultants and agents that is necessary to obtain and maintain such protection. The Company agrees that all notes and records made or kept by the Company, its employees, consultants or agents, in connection

with the Intellectual Property are the exclusive property of the Sponsor and that the Sponsor has the sole right to obtain copyrights upon such writings.

6.4 The obligations and rights set forth in this Section 6 shall survive the termination of this Agreement for any reason.

7. Indemnification.

The Company agrees to indemnify and hold harmless the Sponsor and its respective partners, affiliates, shareholders, directors, officers, agents, advisors, representatives, employees, counsel and controlling persons within the meaning of the Securities Act of 1933, as amended, (a "Sponsor Indemnified Party") from and against any and all direct losses, liabilities, claims, damages and expenses whatsoever (and all actions in respect thereof) but excluding consequential loss and to reimburse the Sponsor Indemnified Party for reasonable legal fees and related expenses as incurred (including, but not limited to the costs of giving testimony or furnishing documents in response to a subpoena or otherwise, the costs of investigating, preparing, pursuing or defending any such action or claim whether or not pending or threatened, whether or not resulting in any liability, and whether or not the Sponsor or any Sponsor Indemnified Party is a party thereto), insofar as such losses, liabilities, claims, damages or expenses arise out of, relate to, whether or not resulting in any liability, are incurred in connection with or are in any way a result of (a) this Agreement, including any modifications or future additions to this Agreement, (b) any act by the Company or any Sponsor Indemnified Party taken in connection with the services to be provided under this Agreement, (c) the employment by the Company of any device, scheme or artifice to defraud, or the engaging by the Company in any act, practice or course of business which operates or would operate as a fraud or deceit, or any conspiracy with respect thereto, in connection with this Agreement; provided, however, that the Company will not be liable in any such case if and to the extent that any such loss, claim, damage, liability or expense arises out of or is based upon the negligence, recklessness or willful misconduct of the Sponsor or any Sponsor Indemnified Party.

8. Amendments: Waivers

This Agreement may be altered or amended, and any provisions hereof may be waived, only upon the written approval of the Sponsor and the Company

9. Notices

Any notice or other communication given under this Agreement shall be deemed to have been given in writing (including telex, telecopy or similar teletransmission) addressed as provided below or to the addressee at such other address as the addressee shall have specified by notice actually received by the addressor), and if either (a) actually delivered in fully legible form to such address (evidenced in the case of a telex by receipt of the correct answerback) or (b) in the case of a letter, five days shall have elapsed after the same shall have been deposited in the post, with postage prepaid and registered or certified.

If to the Sponsor, to it at: 101 Main Street
Cambridge, MA 02142
United States of America
Attn: Robert Gallahue
Tel: 617-494-5515
Fax: 617-494-6658

If to the Company, to it at: 7 Hartom Street
POB 23706
Jerusalem, Israel 91236

Attn: Bob Trachtenberg
Tel: 972-2-541-3500
Fax: 972-2-541-3501

10. Successors

This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, successors and assigns provided, however, that neither party may assign this Agreement except to an Affiliate that agrees in writing to bound hereby and to assume all of the obligations of the assigning party hereunder. For the purposes hereof, an "Affiliate" shall mean any entity that, directly or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, either party hereto.

11. Headings

The headings in this Agreement are inserted for convenience of reference only and shall not be a part of or control or affect the meaning hereof.

12. Entire Agreement

This Agreement supersedes any and all oral or written agreements heretofore made relating to the subject matter hereof and constitutes the entire agreement of the parties relating to the subject matter hereof.

13. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of

Israel.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed and delivered as an agreement under seal as of the date first above written.

Keryx Biopharmaceuticals, Inc.

Keryx Biomedical Technologies Ltd.

By: /s/ Morris Laster

By: /s/ Ira Weinstein

Name: Morris Laster

Name: Ira Weinstein

Title: CEO

Title: COO

SUBLEASE AGREEMENT

THIS SUBLEASE AGREEMENT ("Sublease") is made and entered into by and between ZERO STAGE CAPITAL, INC., a California corporation ("Sublessor") and KERYX BIOPHARMACEUTICALS, INC., a Delaware corporation ("Sublessee").

RECITALS

A. Reference is made to that certain Lease Agreement, dated as of June 28, 1991, as amended by Amendment No. 1 to Agreement to Lease dated March 31, 1994, Amendment No. 2 to Agreement to Lease dated April 7, 1994, Amendment No. 3 to Agreement to Lease dated July 31, 1996, Amendment No. 4 to Agreement to Lease dated January 12, 1998 and Fifth Amendment to Lease dated as of November 21, 2000 (as amended, the "Lease"), whereby Sublessor leases from Riverfront Office Park Joint Venture, predecessor in interest to NOP Riverfront LLC ("Landlord"), a portion of the seventeenth (17th) floor comprising approximately 8,605 rentable square feet contained in the building ("Building") known and numbered as 101 Main Street, Cambridge, Massachusetts ("Leased Premises") more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. The Lease is incorporated herein by this reference in accordance with Section 9 hereof. Terms capitalized in this Sublease and not otherwise defined herein shall have the meanings ascribed to them in the Lease.

B. Sublessee desires to sublease a portion of the Leased Premises from Sublessor.

C. The Lease provides that Sublessor shall not sublet the whole or any part of the Leased Premises without first obtaining the consent of Landlord.

AGREEMENT

Subject to the terms and conditions and in consideration of the mutual covenants contained in this Sublease, the parties mutually agree as follows:

1. Leased Premises. Sublessor hereby subleases to Sublessee, and Sublessee hereby subleases from Sublessor a portion of the Leased Premises located on the seventeenth (17th) floor comprising approximately 2,915 rentable square feet, more particularly described in Exhibit "B" attached hereto and incorporated herein by reference ("Subleased Premises") together with the right to use in common, those roadways, walkways, elevators, hallways, stairways necessary for access to that portion of the Building occupied by the Subleased Premises. Sublessee shall not make any alteration to the Subleased Premises without Sublessor's prior written consent, not to be unreasonably withheld, conditioned or delayed, and the Landlord's consent to the extent required under the Lease; except that Sublessee may make non-structural decorative changes to the Subleased Premises without Sublessor's consent, provided however, that in the event Landlord objects to such changes, Sublessee will immediately remove such changes and restore the Subleased Premises to their original condition.

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The Subleased Premises shall be taken "As Is" by Sublessee provided however that Sublessor shall be responsible for demising the Subleased Premises from the remainder of the Leased Premises ("Sublessor's Work") prior to the Commencement Date as hereinafter defined.

2. Term. The term of this Sublease ("Sublease Term") shall commence on the date of July 1, 2001 ("Commencement Date"), and shall continue through and terminate on April 30, 2003 unless otherwise terminated as provided herein. Sublessor shall use commercially reasonable efforts to deliver the Subleased Premises to Sublessee on or before the Commencement Date; provided, however, if for any reason Sublessor does not deliver full possession of the Subleased Premises to Sublessee on the Commencement Date, or if Sublessor has not

completed demising the Subleased Premises from the remainder of the Leased Premises as certified by Sublessor's architect, Sublessor shall not be subject to any liability for such failure, and the validity of the Sublease shall not be impaired, but rent shall abate until delivery of full possession. In the event Sublessor has not received Landlord's Consent pursuant to Section 12 of this Sublease on or before July 15, 2001, Sublessee shall have the right to terminate the Sublease upon prior written notice to Sublessor. In the event full possession of the Subleased Premises with the Sublessor's Work completed, is not delivered to Sublessee on or before August 15, 2001, Sublessee shall have the right to terminate the Sublease upon prior written notice to Sublessor.

Sublessee shall be allowed reasonable early access to the Subleased Premises prior to the Commencement Date in order to assess the capabilities of the voice, data and furniture systems located within the Subleased Premises. Sublessee and its agents, contractors or representatives shall not interfere with the completion of Sublessor's construction of the demising walls. In the event that any of Sublessee's activities in the Subleased Premises prior to the Commencement Date interfere with Sublessor's construction of the demising walls, Sublessee shall immediately cease such activity after verbal notice from Sublessor or its agents.

Sublessee agrees to assume all risk of loss or damage to any machinery, equipment, fixtures, and other personal property installed or brought onto the Subleased Premises by Sublessee and agrees to indemnify, defend, and hold Sublessor harmless from any loss or damage to such property, and all liability, loss, or damage arising from any injury to the Subleased Premises and any death or personal injury to any person or persons arising out of Sublessee's activities on the Subleased Premises, unless any of the foregoing, damage, liability, death, or personal injury was caused by the negligence or willful misconduct of Sublessor and/or Sublessor's agents, employees and contractors.

3. Rent. Sublessee shall pay to Sublessor as rent, without deduction, set off, notice, or demand, at the notice address herein, or at such other place as Sublessor shall designate from time to time by notice to Sublessee, the sum of \$12,024.38 per month based upon a rental rate of \$49.50 per rentable square foot per annum, in advance of the first day of each month of the Sublease Term ("Base Rent"). If the Sublease Term begins or ends on a day other than the first or last day of a month, the rent for such month shall be prorated on a daily basis.

Additional Tax Rent. The proportionate share of all real estate taxes imposed against the Building and the Land, to be paid by Sublessor to Landlord under Paragraph 6.2 and

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6.4 of the Lease, for the fiscal year 2001, shall hereinafter be referred to as the "Tax Expense Base Year". If, with respect to any fiscal year during the Sublease Term after the Tax Expense Base Year, the aggregate amount of Sublessor's proportionate share of real estate taxes paid by Sublessor to Landlord exceeds the Tax Expense Base Year, Sublessee shall pay to Sublessor as "Additional Tax Rent" thirty-four percent (34%) of such excess. Sublessee's obligation under this Additional Tax Rent provision shall be pro-rated for partial fiscal years at the end of the Sublease Term.

Additional Operating Rent. The proportionate share of all costs and expenses incurred by Landlord in the operation and maintenance of the Building and the Land, to be paid by Sublessor to Landlord under Paragraph 6.3 and 6.4 of the Lease, for the calendar year 2001, shall hereinafter be referred to as the "Operating Expense Base Year". If, with respect to any calendar year during the Sublease Term after the Operating Expense Base Year, the aggregate amount of Sublessor's proportionate share of real estate taxes paid by Sublessor to Landlord exceeds the Operating Expense Base Year, Sublessee shall pay to Sublessor as "Additional Operating Rent" thirty-four percent (34%) of such excess. Sublessee's obligation under this Additional Operating Rent provision shall be pro-rated for partial calendar years at the end of the Sublease Term.

Electricity. Sublessee shall also pay to Sublessor all costs for the furnishing of electricity to the Subleased Premises ("Additional Electrical Rent" and together with Additional Operating Rent and Additional Tax Rent, "Additional Rent"). Additional Rent shall be paid by Sublessee to Sublessor in the same manner as Base Rent.

4. Furniture. Sublessor shall lease to Sublessee at no charge for the duration of the Sublease Term any furniture contained within the Subleased Premises as of the date of execution of this Sublease which is listed on Exhibit C attached hereto ("Furniture"). The Furniture will be delivered in its as-is condition and Sublessee will, promptly, upon termination of the Sublease Term, deliver possession of the Furniture to Sublessor in the same condition as received, ordinary wear and tear excepted.

5. Use. Sublessee shall occupy and use the Subleased Premises only as delineated in paragraph 5 of the Lease and for no other purpose. Sublessee shall fully comply with all provisions of the Lease including, without limitation, the rules and regulations under the Lease, and any and all laws, statutes, ordinances, orders, regulations and requirements of all federal, state and local governmental, public or quasi-public authorities, whether now or later in effect, which may be applicable to or in any way affect the Subleased Premises or any part thereof.

6. Condition of Leased Premises. Sublessee agrees to accept the Subleased Premises in an "AS IS", broom clean, condition, subject to Sublessor completing the Sublessor's Work.

7. Parking Spaces. Sublessee shall be entitled to the use of three (3) parking spaces and shall pay to Sublessor the current market rate for such spaces, which rate is currently \$200.00 per month.

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8. Security Deposit. Concurrently with Sublessee's execution of this Sublease, Sublessee shall deposit with Sublessor the sum of \$12,024.38, which is an amount equal to one month's rent of the monthly rental payable under the Sublease, to be held by Sublessor as security for the payment by Sublessee of the rent and for the faithful performance of all the terms, conditions and covenants of this Sublease. If Sublessee defaults in the performance of any provision of this Sublease, following the expiration of any applicable notice and cure period, Sublessor may, but shall not be required to, use such deposit, or so much thereof as is necessary, in payment of any rent in default or any expense, damage, loss or liability suffered by Sublessor by reason of Sublessee's default. In such event, Sublessee shall within five (5) days after written demand from Sublessor, deposit with Sublessor a sufficient amount in cash to restore such deposit to its original amount. Sublessee's failure to do so shall be a material breach of this Sublease. Sublessor's rights hereunder shall be in addition to all its other rights and remedies. The security deposit shall not be considered an advanced payment of rent or a measure of Sublessor's damages in case of default by Sublessee and if claims of Sublessor exceed the deposit, Sublessee shall remain liable for the balance of such claims. If Sublessee is not in default hereunder at the expiration of the Term, the security deposit or any balance thereof shall be returned to Sublessee (or, at Sublessor's option, to the last assignee of Sublessee's interest) at the expiration of the Sublease Term and after Sublessee has vacated the Subleased Premises. Sublessor shall not be required to keep the security deposit separate from its general funds and Sublessee shall not be entitled to interest on such deposit. Sublessee shall not assign or encumber or attempt to assign or encumber the deposit except that Sublessee may assign such deposit in the event of a permitted assignment of this Sublease.

9. Lease. Except to the extent not otherwise inconsistent with the agreements and understandings expressed in this Sublease or applicable only to the original parties to the Lease, the terms, provisions, covenants and conditions of the Lease (excluding Sections 4.1 through 4.6, inclusive, 19, second paragraph of Section 24, 27.3, Exhibit C and D of the Lease) are hereby

incorporated herein by reference on the following understandings:

(a) The term "Landlord" as used therein shall refer to Sublessor hereunder, its successors and assigns, and the term "Tenant" as used therein shall refer to Sublessee hereunder, its successors and permitted assigns.

(b) In any case where the Landlord reserves the right to enter the Premises, said right shall inure to the benefit of the Landlord as well as to the Sublessor.

(c) Each party hereto represents and warrants that it will (i) perform and comply with the terms, provisions, covenants and conditions of the Lease; and (ii) not do or suffer or permit anything to be done which would result in a default under or cause the Lease to be terminated or forfeited.

(d) Sublessee by this Sublease assumes Sublessor's obligations to observe and perform all of the terms, covenants, conditions and agreements to be performed or observed during the Sublease Term on the part of Sublessor under the Lease with respect to the Subleased Premises except as otherwise specifically provided in this Sublease.

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(e) Sublessee shall not have the right to (i) assign, pledge, hypothecate or otherwise transfer, by operation of law or otherwise, this Sublease or any interest herein; or (ii) sublease the Subleased Premises or any part thereof without Sublessor's consent, such consent not to be unreasonably withheld or delayed, subject to the provisions of Article 14 of the Lease. Any attempted assignment, transfer or sublease shall be void and of no effect. Notwithstanding the foregoing, subject to the provisions of Article 14 of the Lease Sublessee shall have the right to assign the Sublease or sublease the Subleased Premises, without the consent of Sublessor, if such assignment or sublease is made in accordance with Section 14.3 of the Lease.

(f) Sublessor shall not take any action to amend the Lease in any way which would have the material adverse effect on Sublessee without first obtaining the consent of Sublessee.

(g) Sublessor shall exercise due diligence in seeking Landlord's performance of its obligations under the Lease for the benefit of Sublessee.

10. Default and Remedies. If Sublessee shall default in fulfilling any of the terms, covenants or agreements hereof or of the Lease, and (i) in the case of a monetary default, such default continues for a period of five (5) business days after Sublessee's receipt of written notice thereof, and (ii) in the case of a non-monetary default, such default continues for a period of fifteen (15) days after Sublessee's receipt of written notice thereof, or such longer period as may be necessary if such default cannot reasonably be cured within fifteen (15) days, provided that Sublessee commences to cure such default within fifteen (15) days and thereafter proceeds to diligently complete the same, Sublessor may give Sublessee three (3) days' written notice of intention to end the term of this Sublease, and at the end of said period, the Sublease Term shall expire with the same effect as if that day were the date hereinbefore set forth for the expiration of the Sublease Term without a necessity of re-entry or any other act on Sublessor's part, any requirement for any other act or notice by Sublessor being hereby waived by Sublessee. If the Sublease is terminated, Sublessee shall be and remain liable to Sublessor for damages as hereinafter provided and Sublessor shall be entitled to recover forthwith from Sublessee as damages an amount equal to the total of; (i) all sums remaining unpaid at the time of termination of the Sublease, and (ii) the amount of all other sums that would have been payable hereunder if the Sublease had not been terminated, less the net proceeds, if any, of any reletting of the Leased Premises, after deducting all of Sublessor's reasonable expenses in connection with such reletting. No provisions of the Sublease shall limit or prejudice the right of Sublessor to prove or obtain as liquidated damages by reason of any termination of the Sublease, an amount equal to the maximum allowed by any statute or rule of law

in effect at the time, when, and governing the proceedings in which, such damages are to be proved, whether or not such amount be greater, equal to, or less than the amount referred to above.

11. Notices. All notices permitted or required by this Sublease or the Lease shall be in writing and personally delivered or sent by certified or registered mail, postage prepaid, to Landlord at the address and in the manner set forth in the Lease and to Sublessor and Sublessee at the following addresses:

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IF TO SUBLESSOR:

Zero Stage Capital
101 Main Street, 17th Floor
Cambridge, MA 02142
Attn: Brian Johnson

With a copy to:

Brown, Rudnick, Freed & Gesmer, P.C.
One Financial Center
Boston, MA 02111
Attn: Gregg B. Cosimi, Esq.

IF TO SUBLESSEE PRIOR TO
COMMENCEMENT DATE:

KERYX BIOPHARMACEUTICALS
PMB 318
One Kendall Square
Building 600
Cambridge, MA 02139
Attn: Robert Gallahue

AFTER THE COMMENCEMENT DATE:

KERYX BIOPHARMACEUTICALS, INC.
101 Main Street, 17th Floor
Cambridge, MA 02142
Attn.: Robert Gallahue

With a copy to:

Hale and Dorr LLP
60 State Street
Boston, MA 02109
Attn: Katharine E. Bachman, Esq.

or at such other address as a party shall designate.

12. Consent of Landlord. This Sublease is subject to, and conditioned upon, Sublessor obtaining the prior written consent of Landlord ("Landlord's Consent") to this Sublease. Sublessor shall use diligent good faith efforts to obtain Landlord's Consent to this Sublease. If Landlord's Consent is not received on or before July 15, 2001, Sublessor and Sublessee shall have the right, upon giving three days' written notice to the other party, to terminate this Sublease. In such an event, this Sublease shall automatically terminate, all parties are automatically released from any liability under this Sublease and all payments, if any, made by Sublessee to Sublessor together with any security deposited pursuant to this Sublease shall be refunded and returned by Sublessor to Sublessee.

13. Indemnification. Sublessee, its employees, agents or invitees shall not commit or suffer any act or omission that will violate any of the provisions of this Sublease or the Lease. If the Lease terminates, this Sublease shall terminate and the parties shall be relieved of any further liability or obligation under this Sublease; provided however, that if the Lease terminated

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as a result of a default or breach by Sublessee under this Sublease and/or the Lease, the Sublessee shall indemnify and hold Sublessor harmless from and

against any and all damage, cost, expense or claim suffered by Sublessor as a result of such termination. Sublessor, its employees, agents or invitees shall not commit or suffer any act or omission that will violate any of the provisions of this Sublease or the Lease. If the Lease terminates as a result of a default or breach by Sublessor under this Sublease and/or the Lease, the Sublessor shall indemnify and hold Sublessee harmless from and against any and all damage, cost, expense or claim suffered by Sublessee as a result of such termination. If the Lease gives Sublessor a right to terminate the Lease in the event of the partial or total damage, destruction, or condemnation of the Leased Premises or the Building or Project of which the Subleased Premises are a part, the exercise of such right by Sublessor shall not constitute a default or breach hereunder.

14. Insurance. At all times during the term of this Sublease Sublessee shall carry and maintain, at Sublessee's expense, insurance in the amounts and with the coverages required under the Lease from time to time. All policies of insurance provided for herein shall name Landlord and Sublessor as an additional insured. Certificates of such insurance shall be delivered to Sublessor or Landlord upon request. All such policies shall provide that they may not be terminated or amended except after thirty (30) days written notice thereof to Landlord and Sublessor. All public liability, property damage and other casualty policies shall be written as primary policies, not contributing with and not in addition to that which Sublessor or Landlord may carry.

15. Indemnification Generally. Sublessee shall indemnify and hold harmless Sublessor, and Sublessor's employees and agents from and against any and all claims arising from Sublessee's use of the Subleased Premises, or from the conduct of Sublessee's business or from any activity, work or things done, permitted or suffered by Sublessee in or about the Subleased Premises and shall further indemnify and hold harmless Sublessor and Sublessor's employees and agents from and against any and all claims arising from any breach or default in the performance of any obligation on Sublessee's part to be performed under the terms of the Sublease, arising from any negligent or wrongful act or omission of the Sublessee, or Sublessee's agent, contractors, employees, or invitees, and from and against all cost, reasonable attorney fees, expenses and liabilities incurred in the defense of any such claim or any action or proceeding brought thereon.

16. Surrender of Leased Premises. At the end of the Sublease Term or upon sooner termination of this Sublease, Sublessee shall peaceably deliver up to Sublessor possession of the Subleased Premises in the same condition as received, reasonable wear and tear excepted. Sublessee shall, at its sole cost and expense, thoroughly clean the Subleased Premises to deliver the Subleased Premises to Sublessor in the same condition as received. If Sublessee is not in default, Sublessee may remove from the Subleased Premises any trade fixtures, movable equipment and furniture placed therein by Sublessee. Whether or not Sublessee is in default, hereunder, Sublessee shall remove at the expiration of the Term such alterations, additions, improvements, trade fixtures, equipment and furniture placed therein by Sublessee as Sublessor shall require at the time of Sublessor consent to alterations, additions, improvements, or with respect to alterations, additions and improvements not requiring Sublessor's consent hereunder upon, as Sublessor requires by written notice to Sublessee at least 30 days prior to the expiration

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of the term. Sublessee shall fully repair any damage occasioned by the removal of any such trade fixtures, equipment, furniture, alterations, additions and improvements. Sublessee's obligation to observe and perform this covenant shall survive the expiration or other termination of this Sublease.

17. Estoppel Certificate. Sublessee shall, from time to time, within ten (10) days after Sublessor's written request therefore, deliver to Sublessor a statement in recordable form, provided such form is reasonably satisfactory to Sublessee, certifying that this Sublease is in full force and effect, this Sublease is unmodified, or if modified, stating any such modifications, that there are no defenses or offsets to the Sublease by, Sublessee, or stating such

defenses or offsets as are claimed by Sublessee, that Sublessor is not in default hereunder or specifying any defaults by Sublessor that Sublessee alleges, and specifying any further information about the Sublease or the Subleased Premises that Sublessor may reasonably request. Failure to deliver such certificate at such time shall be a material default by Sublessee. Sublessee agrees such certificates may be relied upon by perspective purchasers, mortgages or lessors of the Subleased Premises.

18. Holding Over. If Sublessee remains in possession of the Subleased Premises or any part thereof after the expiration of the term hereof, such occupancy shall be a tenancy from month to month and not a renewal or extension of this Sublease, upon all the provisions of this Sublease pertaining to the obligations of Sublessee, except that the rent payable for such hold over period shall be payable monthly and shall be equal to an amount of one hundred fifty (150%) percent of the amount of monthly rent payable by Sublessee immediately prior to such hold over period. Nothing contained herein shall restrict or prohibit Sublessor from treating Sublessee as a trespasser and evicting Sublessee by means of an unlawful detainer or other applicable proceeding.

19. Subordination and Attornment. This sublease shall be subordinate to all ground leases, underlying leases, mortgages, deeds of trust as other encumbrances, and any and all conditions, renewals, extensions, modifications, consolidations and replacements of any or all of the foregoing, now or hereafter affecting such leases or all or any portion of the Subleased Premises (except to the extent any such instruments shall expressly provide that this Sublease is superior thereto). This clause shall be self operative and no further instrument of subordination shall be required in order to effectuate it. Nevertheless, Sublessee shall execute and deliver promptly any certificate or other assurance in confirmation of such subordination requested by any lessor, mortgagee or by Sublessor or Landlord provided, however, that Sublessee shall not be required to deliver any such certificate or other insurance until such time as Sublessee has received a non-disturbance agreement from the party requesting such certificate or other insurance. In the event any proceedings are brought under any ground or underlying lease or for the foreclosure of any mortgage, deed of trust or other encumbrance to which this Sublease is subject and subordinate, Sublessee shall, upon request of the party incurring to the interest of Sublessor or Landlord as a result of such proceedings, automatically attorn to and become the tenant of such party in interest without change in the terms of this Sublease. Sublessee when requested by such party in interest shall, execute and deliver any instruments confirming such attornment.

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19. Attorneys' Fees. If Sublessor or Sublessee shall commence an action against the other arising out of or in connection with this Sublease, the prevailing party shall be entitled to recover its costs of suit and reasonable attorney's fees from the non-prevailing party.

20. Binding Effect. The Sublease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns. In the event of any conflict between the terms of the Lease and the terms of this Sublease, the terms of this Sublease shall control.

21. Broker. Sublessee and Sublessor mutually represent and warrant that they have dealt with no broker in connection with this transaction except for Cushman & Wakefield and Trammell Crow Company (collectively, the "Brokers"). Each agrees to defend, indemnify and save the other harmless from and against any and all cost, expense or liability for any compensation, commissions or charges claimed by any broker or agent other than the Brokers, with respect to the indemnifying party's dealings in connection with this Sublease. Sublessor shall pay the commission due to the Brokers.

22. Signage. Sublessee shall have the right to install a sign identifying Sublessee's name at the main entrance to the Subleased Premises.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this Sublease on this 20th day of June, 2001.

SUBLESSOR:
ZERO STAGE CAPITAL

By: /s/ Brian M. Johnson

Print Name: Brian M. Johnson
Title:CFO

SUBLESSEE:
KERYX BIOPHARMACEUTICALS, INC.

By: /s/ Bob Gallahue

Print Name: Bob Gallahue
Title:CFO & Treasurer

Consented and agreed to by:

LANDLORD:
GERALD D. HINES INTERESTS

By:

Print Name:
Title:

EXHIBIT "A"

Description of Leased Premises

EXHIBIT "B"

Description of Subleased Premises

EXHIBIT "C"

List of Furniture

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KERYX BIOPHARMACEUTICALS, INC. - LIST OF SUBSIDIARIES

1. Keryx (Israel) Ltd. - incorporated in Israel
2. Keryx Securities Corporation -- incorporated in Massachusetts
3. Keryx Biomedical Technologies Ltd. - incorporated in Israel

The Board of Directors
Keyrx Biopharmaceuticals, Inc.

We consent to the incorporation by reference in the registration statement on Form S-8 of Keyrx Biopharmaceuticals, Inc. of our report dated February 28, 2002 with respect to the consolidated balance sheets of Keyrx Biopharmaceuticals, Inc. as of December 31, 2001 and 2000 and the related consolidated statements of operations, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2001, and all related financial statement schedules, which report appears in the December 31, 2001, annual report on Form 10-K of Keyrx Biopharmaceuticals, Inc.

Somekh Chaikin

A member firm of KPMG International
Certified Public Accountants (Isr.)

Jerusalem, Israel

March 26, 2002