

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-KSB

Annual Report Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

For the Fiscal Year Ended
December 31, 1997

Commission File No. 0-23047

SIGA Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

13-864870
(IRS Employer Id. No.)

420 Lexington Avenue, Suite 620
New York, NY
(Address of principal executive offices)

10170
(zip code)

Registrant's telephone number, including area code: (212) 672-9100

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

None
(Title of Class)

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

Common Stock, \$.0001 par value
(Title of Class)

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 definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. .

As of March 27, 1998, the Registrant had outstanding 6,577,712 shares of Common Stock. The aggregate market value of the registrant's Common Stock on such date held by those persons deemed to be non-affiliates was approximately \$20,398,933.

PART I

Item 1. Business

Introduction

SIGA Pharmaceuticals, Inc (the "Company") is a development stage, biopharmaceutical company focused on the discovery, development and commercialization of vaccines, antibiotics and novel anti-infectives for serious infectious diseases. The Company's lead vaccine candidate is for the prevention of group A streptococcal pharyngitis or "strep throat." The Company is developing a technology for the mucosal delivery of its vaccines which may allow those vaccines to activate the immune system at the mucus lined surfaces of the body - the mouth, the nose, the lungs and the gastrointestinal and urogenital tracts - the sites of entry for most infectious agents. The Company's anti-infectives programs, aimed at the increasingly serious problem of drug resistance, are designed to block the ability of bacteria to attach to human tissue, the first step in the infection process.

The Company's Technologies

Vaccine Technologies: Mucosal Immunity and Vaccine Delivery

Using proprietary technology licensed from The Rockefeller University ("Rockefeller"), the Company is developing certain commensal bacteria ("commensals") as a means to deliver mucosal vaccines. Commensals are harmless bacteria that naturally inhabit the body's surfaces with different commensals inhabiting different surfaces, particularly the mucosal surfaces. The Company's vaccine candidates utilize genetically engineered commensals to deliver antigens from a variety of pathogens to the mucosal immune system. When administered, the genetically engineered ("recombinant") commensals colonize the mucosal surface and replicate. By activating a local mucosal immune response, the Company's vaccine candidates are designed to prevent infection and disease at the earliest possible stage. By comparison, most conventional vaccines are designed to act after infection has already occurred.

The Company's commensal vaccine candidates utilize gram-positive bacteria, one of two major classes of bacteria. Rockefeller scientists have identified a protein region that is used by gram-positive bacteria to anchor proteins to their surfaces. The Company is using the proprietary technology licensed from Rockefeller to combine antigens from a wide range of infectious organisms, both viral and bacterial, with the surface protein anchor region of a variety of commensal organisms. By combining a specific antigen with a specific commensal, vaccines can be tailored to both the target pathogen and its mucosal point of entry.

To target an immune response to a particular mucosal surface, a vaccine would employ a commensal organism that naturally inhabits that surface. For example, vaccines targeting sexually transmitted diseases could employ *Lactobacillus acidophilus*, a commensal colonizing the female urogenital tract. Vaccines targeting GI diseases could employ *Lactobacillus casei*, a commensal colonizing the GI tract. The Company has conducted initial experiments using *Streptococcus gordonii* ("*S. gordonii*"), a commensal that colonizes the oral cavity and that can potentially be

used in vaccines targeting pathogens that enter through the upper respiratory tract, such as the influenza virus.

By using an antigen unique to a given pathogen, the technology can potentially be applied to any infectious agent that enters the body through a mucosal surface. The Company's founding scientists have expressed and anchored a variety of viral and bacterial antigens on the outside of *S. gordonii*, including the M6 protein from group A streptococcus, a group of organisms that cause a range of diseases, including strep throat, necrotizing fasciitis, impetigo and scarlet fever. In addition, proteins from other infectious agents, such as HIV and human papilloma virus have also been expressed using this system. The Company believes this technology will enable the expression of essentially any antigen regardless of size or shape. In animal studies, the Company has shown that the administration of a recombinant *S. gordonii* vaccine prototype induces both a local mucosal immune response and a systemic immune response.

The Company believes that mucosal vaccines developed using its proprietary commensal delivery technology could provide a number of advantages, including:

More complete protection than conventional vaccines: Mucosal vaccines in general may be more effective than conventional parenteral (injectable) vaccines, due to their ability to produce both a systemic and local (mucosal) immune response.

Potential single dose administration: The commensal delivery has the potential to allow for long term colonization of the host, eliminating the need for boosters, while providing an extended exposure to the selected vaccine candidate(s).

Safety advantage over other live vectors: A number of bacterial pathogens have been genetically rendered less infectious, or attenuated, for use as live vaccine vectors. Commensals, by virtue of their harmless nature, offer a safer delivery vehicle without fear of genetic reversion to the infectious state inherent in attenuated pathogens.

Non-injection administration: Oral, nasal, rectal or vaginal administration of the vaccine eliminates the need for painful injections with their potential adverse reactions.

Potential for combined vaccine delivery: The Children's Vaccine Initiative has called for the development of combined vaccines, specifically to reduce the number of needle sticks per child, by combining several vaccines into one injection, thereby increasing compliance and decreasing disease. The Company believes its commensal delivery technology can be an effective method of delivery of multi-component vaccines within a single commensal organism that address multiple diseases or diseases caused by multiple strains of an infectious agent.

Eliminating need for refrigeration: One of the problems confronting the effective delivery of parenteral vaccines is the need for refrigeration at all stages prior to injection. The stability of the commensal organisms in a freeze-dried state would, for the most part, eliminate the need for special climate conditions, a critical consideration, especially for the

delivery of vaccines in developing countries.

Low cost production: By using a live bacterial vector, extensive downstream processing is eliminated, leading to considerable cost savings in the production of the vaccine. The potential for eliminating the need for refrigeration would add considerably to these savings by reducing the costs inherent in refrigeration for vaccine delivery.

Anti-Infectives Technology: Prevention of Attachment and Infectivity

The bacterial infectious process generally includes three steps: colonization, invasion and disease. The adherence of bacteria to a host's surface is crucial to establishing colonization. Bacteria cells adhere through a number of mechanisms, but generally by using highly specialized surface structures which, in turn, bind to specific structures or molecules on the host's cells or, as discussed below, to inanimate objects residing in the host. Once adhered, many bacteria will invade the host's cells and either establish residence or continue invasion into deeper tissues. During any of these stages, the invading bacteria can produce the molecules (toxins) which result in the outward manifestations of the disease. The severity of disease, while dependent on a large combination of factors, is often the result of the ability of the bacteria to persist in the host. These bacteria accomplish this persistence by using surface molecules which can alter the host's nonspecific mechanisms or its highly specific immune responses to clear or destroy the organisms.

Unlike conventional antibiotics, as discussed above, the Company's anti-infectives approaches aim to block the ability of pathogenic bacteria to attach to and colonize human tissue, thereby preventing infection at its earliest stage. The Company is pursuing two anti-infective strategies: (i) inhibiting the expression of bacterial surface proteins required for bacterial infectivity and (ii) blocking the tissue binding sites on bacterial surface proteins. The Company believes that these approaches have promise in the areas of hospital-acquired drug-resistant infections and a broad range of other diseases caused by bacteria.

Many special surface proteins used by bacteria to infect the host are anchored in the bacterial cell wall. Scientists at Rockefeller have identified an amino acid sequence and related enzyme, a selective protease, that are essential for anchoring proteins to the surface of most Gram-positive bacteria. Published information indicates that this amino acid sequence is shared by more than 50 different surface proteins found on a variety of gram-positive bacteria. This commonality suggests that this protease represents a promising target for the development of a new class of antibiotic products for the treatment of a wide range of infectious diseases. Experiments by the Company's founding scientists at Rockefeller have shown that without this sequence, proteins cannot become anchored to the bacterial surface and thus the bacteria are no longer capable of attachment, colonization or infection. Such "disarmed" bacteria should be readily cleared by the body's immune system. The Company is using a combination of structure-based drug design and high throughput screening procedures to identify compounds that inhibit the protease, thereby blocking the anchoring process. If successful, this strategy should provide relief from many Gram-positive bacterial infections, but may prove particularly important in combating diseases caused by the emerging antibiotic resistance of the gram-positive organisms *S. aureus*, *Streptococcus pneumoniae*, and the enterococci.

In contrast to the above program, which focuses on gram-positive bacteria, the Company's pilicide program, based upon initial research performed at Washington University, focuses on a number of new and novel targets all of which impact on the ability of gram-negative bacteria to assemble adhesive pili on their surfaces. This research program is based upon the well-characterized interaction between a periplasmic protein - a chaperone - and the protein subunits required to form pili. In addition to describing the process by which chaperones and pili subunits interact, this program has developed the assay systems necessary to screen for potential therapeutic compounds, and has provided an initial basis for selecting novel antibiotics that work by interfering with the pili adhesion mechanism.

Surface Protein Expression System ("SPEX")

The ability to overproduce many bacterial and human proteins has been made possible through the use of recombinant DNA technology. The introduction of DNA molecules into E. coli has been the method of choice to express a variety of gene products, because of this bacteria's rapid reproduction and well-understood genetics. Yet despite the development of many efficient E. coli-based gene expression systems, the most important concern continues to be associated with subsequent purification of the product. Recombinant proteins produced in this manner do not readily cross E. coli's outer membrane, and as a result, proteins must be purified from the bacterial cytoplasm or periplasmic space. Purification of proteins from these cellular compartments can be very difficult. Frequently encountered problems include low product yields, contamination with potentially toxic cellular material (i.e., endotoxin) and the formation of large amounts of partially folded polypeptide chains in non-active aggregates termed inclusion bodies.

To overcome these problems, the Company has taken advantage of its knowledge of Gram-positive bacterial protein expression and anchoring pathways. This pathway has evolved to handle the transport of surface proteins that vary widely in size, structure and function. Modifying the approach used to create commensal mucosal vaccines. The Company has developed methods which, instead of anchoring the foreign protein to the surface of the recombinant gram-positive bacteria, result in it being secreted into the surrounding medium in a manner which is readily amenable to simple batch purification. The Company believes the advantages of this approach include the ease and lower cost of gram-positive bacterial growth, the likelihood that secreted recombinant proteins will be folded properly, and the ability to purify recombinant proteins from the culture medium without having to disrupt the bacterial cells and liberating cellular contaminants. gram-positive bacteria may be grown simply in scales from those required for laboratory research up to commercial mass production.

The Company's Product Candidates and Research and Discovery Programs

Mucosal Vaccines

Development of the Company's mucosal vaccine candidates involves: (i) identifying a suitable immunizing antigen from a pathogen; (ii) selecting a commensal that naturally colonizes the mucosal point of entry for that pathogen; and (iii) genetically engineering the commensal to express the antigen on its surface for subsequent delivery to the target population.

Strep Throat Vaccine Candidate. Until the age of 15, many children suffer recurrent strep throat infections. Up to five percent of ineffectively treated strep throat cases progress to rheumatic fever, a debilitating heart disease, which worsens with each succeeding streptococcal infection. Since the advent of penicillin therapy, rheumatic fever in the United States has experienced a dramatic decline. However, in the last decade, rheumatic fever has experienced a resurgence in the United States. Part of the reason for this is the latent presence of this organism in children who do not display symptoms of a sore throat, and, therefore, remain untreated and at risk for development of rheumatic fever. Based on data from the Centers for Disease Control and Prevention, there are seven to 20 million cases of pharyngitis due to group A streptococcus in the United States each year. There are over 32 million children in the principal age group targeted by the Company for vaccination. Worldwide, it is estimated that one percent of all school age children in the developing world have rheumatic heart disease. Despite the relative ease of treating strep throat with antibiotics, the specter of antibiotic resistance is always present. In fact, resistance to erythromycin, the second line antibiotic in patients allergic to penicillin, has appeared in a large number of cases.

No vaccine for strep throat has been developed because of the problems associated with identifying an antigen that is common to the more than 100 different serotypes of group A streptococcus, the bacterium that causes the disease. The Company has licensed from Rockefeller a proprietary antigen which is common to most types of group A streptococcus, including types that have been associated with rheumatic fever. When this antigen was orally administered to animals, it was shown to provide protection against multiple types of group A streptococcal infection. Utilizing this antigen, the Company is developing a mucosal vaccine for strep throat.

The Company's technology expresses the strep throat antigen on the surface of the commensal, *S. gordonii*, which lives on the surface of the teeth and gums. The Company believes that a single oral dose of the vaccine may be adequate to provide protection. Indeed, investigators at other institutions have shown that organisms of this type can safely colonize in the human oral cavity for up to two years. The Company is currently completing pre-clinical development of its strep throat vaccine candidate. Pre-clinical research in mice and rabbits has established the ability of this vaccine candidate to colonize and induce both a local and systemic immune response. The Company is collaborating with the National Institutes of Health (the "NIH") and the University of Maryland Center for Vaccine Development on the clinical development of this vaccine candidate. The NIH in cooperation with the Company filed an Investigational New Drug Application ("IND") with the United States Food and Drug Administration (the "FDA") in December 1997. The Company anticipates commencement of clinical studies under this IND at the University of Maryland by mid-1998.

Periodontal Vaccine Candidate. Periodontal disease is characterized by acute soft tissue inflammation and subsequent alveolar bone loss. It is estimated that this condition afflicts up to 50% of the adult population by the time they reach age 65, and is a major cause of tooth loss in the older population. In addition, animal studies conducted at the University of Minnesota show that bacteria from the mouth which enter the blood stream via diseased gums can induce clotting which is the pivotal event in most heart attacks and strokes. Current treatments for periodontal disease include mechanical debridement, tissue resection and/or antibiotic therapy. It is believed that periodontal disease is the result of an interaction between the immune system or the host and

a number of oral bacterial pathogens, principally *Porphyromonas gingivalis* ("P. gingivalis").

The Company has entered into a collaborative research agreement with the State University of New York at Buffalo School of Dental Medicine ("SUNY Buffalo") to develop a mucosal vaccine to prevent periodontal disease. The vaccine, as currently constructed, features a surface antigen, fimbrillin from *P. gingivalis* delivered to the oral cavity via the Company's proprietary mucosal vaccine delivery system. In preclinical trials, mucosal immunization with, or direct delivery of, fimbrillin-derived peptides to the oral cavity of germ-free rats blocked the ability of *P. gingivalis* to colonize in the rats upon subsequent challenge, and dramatically reduced associated periodontal disease and bone loss. Additional clinical studies of the bacterial vector for this vaccine candidate will be conducted in spring 1998.

Two vaccine candidates are currently being studied in pre-clinical animal colonization and challenge experiments. In addition, the Company has undertaken an early stage clinical evaluation of the proposed commensal bacterial vector for this program, *S. gordonii*. These clinical studies are designed to optimize the preparation of the vector for adherence to mucosal membranes and teeth, as well as methods to remove the vector should it be clinically indicated.

STD Vaccine Candidates. One of the great challenges in vaccine research remains the development of effective vaccines to prevent sexually transmitted viral diseases. The three principal viral pathogens which are transmitted via this route are Herpes simplex, type 2 ("HSV- 2") which causes recurrent genital ulcers, HIV, the causative agent of AIDS, and human papilloma virus (HPV) which is linked to both genital warts and cervical carcinoma. To date, a great deal of effort has been expended, without appreciable success, to develop effective injectable prophylactic vaccines versus these pathogens. Given that each of these viruses enters the host through the mucosa, the Company believes that induction of a vigorous mucosal response to viral antigens may protect against acquisition of the initial infection. To test this hypothesis, the Company is expressing known immunodominant antigens from each of these viral pathogens in its proprietary mucosal vaccine delivery system. These live recombinant vaccines will be delivered to animals and tested for local and systemic immune response induction, and whether these responses can block subsequent viral infections. The Company is collaborating with Chiron Corporation on research toward the development of vaccines against two sexually transmitted diseases.

Mucosal Vaccine Delivery System

The Company is also developing a proprietary mucosal vaccine delivery system which is a component of the Company's vaccine candidates and which the Company intends to license to other vaccine developers. The Company's commensal vaccine candidates utilize gram-positive bacteria as vectors for the presentation of antigens. Scientists at Rockefeller have identified a protein region used by gram-positive bacteria to anchor proteins to their surfaces. The Company is using proprietary technology licensed from Rockefeller to anchor antigens from a wide range of infectious organisms, both viral and bacterial, to the surface protein anchor region of a variety of commensal organisms. By combining a specific antigen with a specific commensal, the

Company believes that vaccines can be tailored to both the target pathogen and its mucosal point of entry.

The Company has developed several genetic methods for recombining foreign sequences into the genome of gram-positive bacteria at a number of non-essential sites. Various parameters have been tested and optimized to improve the level of foreign protein expression and its immunogenicity. In pre-clinical studies, recombinant commensals have been implanted into the oral cavities of several animal species with no deleterious effects. The introduced vaccine strains have taken up residence for prolonged periods of time and induce both a local mucosal (IgA) as well as a systemic immune response (IgG and T-cell).

The current and proposed clinical studies by the NIH at the University of Maryland, and by the Company, are designed to evaluate the function of *S. gordonii* as a commensal bacterial vector for vaccines designed to prevent strep throat and periodontal disease, respectively. These studies are designed to evaluate preparatory procedures to optimize adherence of the commensal vector to mucosal membranes and teeth. It is also recognized that on rare occasions it may be clinically warranted to remove the recombinant commensal. Therefore, these studies will also evaluate the use of existing antibiotics in the eradication of recombinant commensal bacteria.

Anti-Infectives

The Company's anti-infectives program is targeted principally toward drug-resistant bacteria and hospital-acquired infections. According to estimates from the Centers for Disease Control, approximately two million hospital-acquired infections occur each year in the United States.

The Company's anti-infectives approaches aim to block the ability of bacteria to attach to and colonize human tissue, thereby blocking infection at the first stage in the infection process. By comparison, antibiotics available today act by interfering with either the structure or the metabolism of a bacterial cell, affecting its ability to survive and to reproduce. No currently available antibiotics target the attachment of a bacterium to its target tissue. By preventing attachment, the bacteria should be readily cleared by the body's immune system.

Gram-Positive Antibiotic Technology. The Company's lead anti-infectives program is based on a novel target for antibiotic therapy. The Company's founding scientists have identified an enzyme, a selective protease, utilized by most gram-positive bacteria to anchor certain proteins to the bacterial cell wall. These surface proteins are the means by which certain bacteria recognize, adhere to and colonize specific tissue. The Company's strategy is to develop protease inhibitors. The Company believes protease inhibitors will have wide applicability to gram-positive bacteria in general, including antibiotic resistant staphylococcus and a broad range of serious infectious diseases including meningitis and respiratory tract infections. The Company has entered into a collaborative research and license agreement with the Wyeth-Ayerst Laboratories Division of American Home Products Corporation ("Wyeth-Ayerst") to identify and develop protease inhibitors as novel antibiotics.

Gram-Negative Antibiotic Technology The Company recently entered into a set of technology transfer and related agreements with MedImmune, Inc. ("MedImmune"), Astra AB and The Washington University, St. Louis ("Washington University"), pursuant to which the Company has acquired all of the rights to gram-negative antibiotic targets, products, screens and services developed at Washington University. The Company and MedImmune plan to collaborate in the development of antibiotics against gram-negative pathogens. These bacteria utilize structures called pili to adhere to target tissue, and the Company plans to exploit the assembly and export of these essential infective structures as novel anti-infective targets.

Research carried out at Washington University has demonstrated that assembly of type P pili on gram-negative bacteria requires the participation of both a periplasmic molecular chaperone and an outer membrane usher. Since the gram-negative pili are the primary mechanism by which these organisms adhere to and colonize host tissue, inhibition of their assembly should effectively inhibit disease caused by this class of organisms. Detailed structural data is available on the molecular chaperone and scientists at Washington University are developing the same for the usher protein. This information has been used in concert with molecular modeling techniques to identify potential structures that will bind to the conserved residues of the chaperone and usher proteins. With identification of these structures, natural and synthetic molecules that inhibit chaperone/usher function can be screened using high throughput assays developed by scientists at Washington University. The Company believes that this approach is a departure from conventional antibiotics and therefore may afford a method to circumvent the resistance mechanisms already established in many gram-negative bacteria.

Scientists at Washington University have elucidated the role of chaperones - a family of periplasmic proteins - in the formation of pili, which are essential for the virulence of certain gram-negative bacteria, such as E. coli or the Enterobacteriaceae (Salmonella, Shigella, Klebsiella, etc.). The elucidation of this pathway provides several targets for the development of novel anti-infectives: (i) blocking the interaction between chaperones and pilin subunits; (ii) interfering with chaperone-dependent folding of pilin subunits; or (iii) interfering with how pilin subunits exit from the bacteria's outer membrane (through the "usher" component). The chaperone-pilin complex has been examined using x-ray crystallography, and assays measuring the chaperone interactions have been established. The Company and Washington University are reviewing potential compounds which interfere with the chaperone-pilin interaction, as well as seeking alternative intervention sites in the pilus formation pathway.

Surface Protein Expression System

The Company's proprietary SPEX protein expression uses the protein export and anchoring pathway of gram-positive bacteria as a means to facilitate the production and purification of biopharmaceutical proteins. The Company has developed vectors which allow foreign genes to be inserted into the chromosome of gram-positive bacteria in a manner such that the encoded protein is synthesized, transported to the cell surface and secreted into the medium. This system has been used to produce milligram quantities of soluble antigenically authentic protein that can be easily purified from the culture medium by affinity chromatography. The Company believes this

technology can be extended to a variety of different antigens and enzymes.

The Company has commenced yield optimization and process validation of this system. This program is designed to transfer the method from a laboratory scale environment to a commercial production facility. The Company intends to begin the non-exclusive licensing of this technology for a broad range of applications during 1998.

Collaborative Research and Licenses

The Company sponsors research and development activities in laboratories at Rockefeller, Oregon State, SUNY Buffalo, and Washington University. The Company's own research and development facility is under construction in Corvallis, Oregon. Construction scheduled to be completed in June 1998. The Company has entered into the following license agreements and collaborative research arrangements:

Rockefeller University. The Company and Rockefeller have entered into an exclusive worldwide license and research agreement whereby the Company has obtained the right and license to make, use and sell mucosal vaccines based on gram-positive organisms and products for the therapy, prevention and diagnosis of diseases caused by streptococcus, staphylococcus and other organisms. The license covers two issued United States patents and one issued European patent as well as 11 pending United States patent applications and corresponding foreign patent applications. The issued United States patents expire in 2005 and 2014, respectively. The agreement generally requires the Company to pay royalties on sales of products developed from the licensed technologies and fees on revenues from sublicensees, where applicable, and the Company is responsible for certain milestone payments and for the costs of filing and prosecuting patent applications. Pursuant to the agreement, the Company is providing funding to Rockefeller for sponsored research through January 31, 1999, with exclusive license rights to all inventions and discoveries resulting from this research.

Oregon State. Oregon State is also a party to the Company's license agreement with Rockefeller whereby the Company has obtained the right and license to make, use and sell products for the therapy, prevention and diagnosis of diseases caused by streptococcus. Because the license relates to one of the pending United States patent applications covered by the Rockefeller license, the Company has agreed to reimburse Rockefeller for Oregon State's patent expenses and Rockefeller will remit such amounts to Oregon State. Pursuant to a separate research support agreement with Oregon State, the Company is providing funding for sponsored research through January 31, 1999, with exclusive license rights to all inventions and discoveries resulting from this research. At the time the Company opens its own research facilities in Corvallis, a significant portion of the research being conducted at Oregon State will be transferred to the Company.

National Institutes of Health. The Company has entered into a clinical trials agreement with the NIH pursuant to which the NIH, with the cooperation of the Company, will conduct a clinical trial of the Company's strep throat vaccine.

SUNY Buffalo. The Company has entered into a research agreement with SUNY Buffalo to develop a mucosal vaccine to prevent periodontal disease. Pursuant to the agreement, the Company is providing funding for sponsored research through June 30, 1998 and has an exclusive option to license all inventions and discoveries resulting from this research.

Wyeth-Ayerst. The Company has entered into a collaborative research and license agreement with Wyeth-Ayerst in connection with the discovery and development of anti-infectives for the treatment of gram-positive bacterial infections. Pursuant to the agreement, Wyeth-Ayerst is providing funding for a joint research and development program through June 30, 1999 and is responsible for additional milestone payments.

Chiron. The Company has entered into a collaborative research agreement with Chiron regarding research toward the development of vaccines against two sexually transmitted diseases. The agreement was entered into as of July 1, 1997 and expires on July 1, 1998. Pursuant to the agreement, each company retains sole rights to any technology invented solely by such company and the companies will jointly own any technology jointly developed by the companies.

Washington University. The Company has entered into a research collaboration and worldwide license agreement with the Washington University pursuant to which the Company has obtained the right and license to make, use and sell antibiotic products based on gram-negative technology for all human and veterinary diagnostic and therapeutic uses. The license covers five pending United States patent applications and corresponding foreign patent applications. The agreement generally requires the Company to pay royalties on sales of products developed from the licensed technologies and fees on revenues from sublicensees, where applicable, and the Company is responsible for certain milestone payments and for the costs of filing and prosecuting patent applications. Pursuant to the agreement, the Company has agreed to provide funding to Washington University for sponsored research through February 6, 2000, with exclusive license rights to all inventions and discoveries resulting from this research.

Patents and Proprietary Rights

Protection of the Company's proprietary compounds and technology is essential to the Company's business. The Company's policy is to seek, when appropriate, protection for its lead compounds and certain other proprietary technology by filing patent applications in the United States and other countries. The Company has licensed the rights to two issued United States patents and one issued European patent. The Company has also licensed the rights to 17 pending United States patent applications as well as corresponding foreign patent applications. The two issued United States patents expire in 2005 and 2014, respectively.

The patents and patent applications licensed by the Company relate to all of the core technology used in the development of the Company's leading product candidates, including the mucosal vaccine delivery system, the SPEX protein expression system for producing biopharmaceutical products, the protective streptococcal antigens and the antibiotic development target, as well as a variety of early stage research projects. Each of the Company's products

represented by each of the patents is in a very early stage in its development process.

The Company also relies upon trade secret protection for its confidential and proprietary information. No assurance can be given that other companies will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to the Company's trade secrets or that the Company can meaningfully protect its trade secrets.

Government Regulation

Regulation by governmental authorities in the United States and other countries will be a significant factor in the production and marketing of any products that may be developed by the Company. The nature and the extent to which such regulation may apply to the Company will vary depending on the nature of any such products. Virtually all of the Company's potential products will require regulatory approval by governmental agencies prior to commercialization. In particular, human therapeutic products are subject to rigorous pre-clinical and clinical testing and other approval procedures by the FDA and similar health authorities in foreign countries. Various federal statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of such products. The process of obtaining these approvals and the subsequent compliance with appropriate federal and foreign statutes and regulations requires the expenditure of substantial resources.

In order to test clinically, produce and market products for diagnostic or therapeutic use, a company must comply with mandatory procedures and safety standards established by the FDA and comparable agencies in foreign countries. Before beginning human clinical testing of a potential new drug, a company must file an IND and receive clearance from the FDA. This application is a summary of the pre-clinical studies that were conducted to characterize the drug, including toxicity and safety studies, as well as an in-depth discussion of the human clinical studies that are being proposed.

The pre-marketing program required for approval of a new drug typically involves a time-consuming and costly three-phase process. In Phase I, trials are conducted with a small number of patients to determine the early safety profile, the pattern of drug distribution and metabolism. In Phase II, trials are conducted with small groups of patients afflicted with a target disease in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety. In Phase III, large scale, multi-center comparative trials are conducted with patients afflicted with a target disease in order to provide enough data for statistical proof of efficacy and safety required by the FDA and others.

The FDA closely monitors the progress of each of the three phases of clinical testing and may, in its discretion, reevaluate, alter, suspend or terminate the testing based on the data that have been accumulated to that point and its assessment of the risk/benefit ratio to the patient. Estimates of the total time required for carrying out such clinical testing vary between two and ten years. Upon completion of such clinical testing, a company typically submits a New Drug Application ("NDA") or Product License Application ("PLA") to the FDA that summarizes the results and observations of the drug during the clinical testing. Based on its review of the NDA

or PLA, the FDA will decide whether to approve the drug. This review process can be quite lengthy, and approval for the production and marketing of a new pharmaceutical product can require a number of years and substantial funding; there can be no assurance that any approvals will be granted on a timely basis, if at all.

Once the product is approved for sale, FDA regulations govern the production process and marketing activities, and a post-marketing testing and surveillance program may be required to monitor continuously a product's usage and its effects. Product approvals may be withdrawn if compliance with regulatory standards is not maintained. Other countries in which any products developed by the Company may be marketed impose a similar regulatory process.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly evolving technology and intense competition. The Company's competitors include most of the major pharmaceutical companies, which have financial, technical and marketing resources significantly greater than those of the Company. Biotechnology and other pharmaceutical competitors include Cubist Pharmaceuticals, Inc., Microcide Pharmaceuticals, Inc., Oravax, Inc., Maxim Pharmaceuticals, Inc., ID Vaccines Ltd., Actinova PLC, and Vaxcel, Inc. Academic institutions, governmental agencies and other public and private research organizations are also conducting research activities and seeking patent protection and may commercialize products on their own or through joint venture. There can be no assurance that the Company's competitors will not succeed in developing products that are more effective or less costly than any which are being developed by the Company or which would render the Company's technology and future products obsolete and noncompetitive.

Human Resources and Facilities

As of March 27, 1998 the Company had 10 full time employees. The Company's employees are not covered by a collective bargaining agreement and the Company considers its employee relations to be excellent.

Item 2. Properties

The Company's headquarters are located in New York, New York and its research and development facilities (when completed) will be located in Corvallis, Oregon. In New York, the Company leases approximately 5,200 square feet under a lease that expires in November 2002. In Corvallis, the Company leases approximately 10,000 square feet under a lease that expires in December 2005.

Item 3. Legal Proceedings

None.

Item 4. Submission of Matters to a Vote of Security Holders

During the fourth quarter of 1997, no matter was submitted to a vote of the security holders of the Company.

Part II

Item 5. Market For Registrant's Common Equity and Related Stockholder Matters

Price Range of Common Stock

The Company's Common Stock commenced trading on the Nasdaq SmallCap Market on September 9, 1997 under the symbol "SGPH." The following table sets forth, for the periods indicated, the high and low sales prices for the Common Stock, as reported on the Nasdaq SmallCap Market.

	Price Range	
	High	Low
1997		
- ----	----	---
Third Quarter (from September 9, 1997)	\$ 6 1/8	\$ 5
Fourth Quarter	7	3 1/4
1998		
- ----		
First Quarter (through March 27, 1998)	4 7/8	4

As of March 27, 1998, there were approximately 47 holders of record of the Common Stock. The Company believes that the number of beneficial owners is substantially greater than the number of record holders, because a large portion of the Common Stock is held of record in broker "street names."

The Company has paid no dividends on its Common Stock and does not expect to pay cash dividends in the foreseeable future. The Company is not under any contractual restriction as to its present or future ability to pay dividends. The Company currently intends to retain any future earnings to finance the growth and development of its business.

Sales of Unregistered Securities in 1997

On February 28, 1997, the Company completed a bridge financing pursuant to which the Company issued bridge notes in the aggregate principal amount of \$1,000,000 and bridge warrants to purchase 100,000 shares in aggregate of the Company's Common Stock an exercise price equal to \$5.00 per share. The bridge financing was exempt from registration under the Securities Act of 1933, as amended (the "Act"), pursuant to Regulation D under the Act, as it was a transaction not involving a public offering.

Certain Information Concerning the Company's Initial Public Offering

Set forth below is certain information concerning the Company's initial public offering (the "Offering").

1. Prior to commencing the Offering, the Company filed a registration statement (the "Registration Statement") with the Securities and Exchange Commission (the "Commission"), pursuant to the Act, in order to register the shares of the Common Stock that the Company proposed to offer. The Commission file number assigned to the Registration Statement is 333- 23037. The Registration Statement was declared effective by the Commission on September 9, 1997.

2. The Offering commenced on July 11, 1997 and was completed on October 15, 1997.

3. The underwriters for the Offering were Sunrise Securities Corp. ("Sunrise") and M.H. Meyerson & Co., Inc.

4. The Registration Statement set forth a "Proposed Maximum Aggregate Offering Price" of \$14,375,000.

5. The Company sold in the Offering an aggregate of 2,875,000 shares of Common Stock at an initial public offering price of \$5.00 per share. The aggregate public offering price of the shares sold in the Offering was \$14,375,000.

6. During the period from September 9, 1997 (the effective date of the Registration Statement) through December 31, 1997, the total expenses paid by the Company related to the Offering (determined on a cash basis) was \$2,195,391 and consisted of the following:

- a. \$1,753,750 paid to the underwriters in respect of the underwriting discount and non-accountable expense allowance;
- b. \$441,641 of other expenses.

7. None of the payments described in paragraph 6 above represented a direct or indirect payment to (i) directors, officers or general partners of the Company or to their associates, (ii) persons owning 10% or more of any class of equity securities of the Company or (iii) affiliates of the Company.

8. After deducting the payments described in paragraph 6 above, the amount of Offering proceeds that remained was \$12,179,609. The Company used \$1,058,306 of such proceeds to repay the bridge notes. As of December 31, 1997, the balance of such proceeds was invested in cash reserves in bank deposits, certificates of deposit, commercial paper, corporate notes, U.S. government instruments and other investment-grade quality instruments.

Item 6. Plan of Operation

Results of Operations

The Company is a development stage, biopharmaceutical company. Since its inception in December 1995, the Company's efforts have been principally devoted to research and development, securing patent protection and raising capital. From inception through December 31, 1997, the Company has sustained cumulative losses of \$4,463,814, including non-cash charges in the amount of \$436,043 for stock option and warrant compensation expense. These losses have resulted primarily from expenditures incurred in connection with research and development, patent preparation and prosecution and general and administrative activities. From inception through December 31, 1997, research and development expenses amounted to \$1,608,990, patent preparation and prosecution expenses amounted to \$740,206 and general and administrative expenses amounted to \$2,343,503. From inception through December 31, 1997, total revenues from research and development collaborative agreements totaled \$675,000.

The Company expects to continue to incur substantial research and development costs in the future resulting from ongoing research and development programs, manufacturing of products for use in clinical trials and pre-clinical and clinical testing of the Company's products. The Company also expects that general and administrative costs, including patent and regulatory costs, necessary to support clinical trials, research and development, manufacturing and the creation of a marketing and sales organization, if warranted, will increase in the future. Accordingly, the Company expects to incur increasing operating losses for the foreseeable future. There can be no assurance that the Company will ever achieve profitable operations.

To date, the Company has not marketed, or generated revenues from the commercialization of, any products. The Company's current product candidates are not expected to be commercially available for several years.

Revenues from research and development collaborative agreements from inception through December 31, 1997 were \$675,000, related to a collaborative research and license agreement entered into with a pharmaceutical company.

General and administrative expenses from inception through December 31, 1997 were \$2,343,503, primarily due to personnel costs and associated operating costs. The Company anticipates that general and administrative expenses will increase substantially during the next 12 months as the Company increases its staffing levels.

Research and development expenditures consist primarily of payments for sponsored research, payments to its scientific consultants and the salaries of its research staff. Research and development expenses from inception through December 31, 1997 were \$1,608,990. As of December 31, 1997, the Company had made advance payments of \$11,684 for research support to Rockefeller for the period ending January 31, 1998. The Company has research support agreements with both Emory and Oregon State pursuant to which the Company is obligated to fund research through January 31, 1998 in the aggregate annual amount of \$183,320. The

Company anticipates that its research and development expenses will increase during the next 12 months as the Company continues to fund research programs and pre-clinical and clinical testing for its product candidates and technologies under development.

From inception through December 31, 1997, the Company recorded non-cash compensation expense in the amount of \$436,043 primarily related to the issuance of compensatory stock options and warrants to the Chief Executive Officer of the Company and a consultant who serves as the Company's Chief Scientific Advisor. The warrants issued to the consultant were to compensate him for his efforts in introducing the Company to potential collaborative partners.

Liquidity and Capital Resources

Initial Public Offering

In September and October 1997, the Company completed the Offering of 2,875,000 shares of its common stock at an offering price of \$5.00 per share. The Company realized gross proceeds of \$14,375,000 and net proceeds, after deducting underwriting discounts and commissions, and other offering expenses payable by the Company, of \$12,179,609.

In September 1997, upon the initial closing of the Offering, the Company repaid, as required by the bridge note agreements, bridge notes in the principal amount of \$1,000,000 and accrued interest thereon in the amount of \$58,306.

1996 Private Placement Transactions

In March 1996, the Company completed a private placement transaction in which it sold 1,038,008 shares of Common Stock for an aggregate gross consideration of \$1,557,000. In September 1996, the Company completed a private placement transaction in which it sold 250,004 shares of Common Stock for an aggregate gross consideration of \$750,000.

Collaborative Research and License Agreement

In July 1997, the Company entered into a collaborative research and license agreement with Wyeth-Ayerst. Under the terms of the agreement, the Company has granted Wyeth-Ayerst an exclusive worldwide license to develop, make, use and sell products derived from specified technologies. The agreement requires Wyeth-Ayerst to sponsor further research by the Company for the development of the licensed technologies for a period of two years from the effective date of the agreement, in return for payments to the Company totaling \$1,200,000. An initial sponsored research payment in the amount of \$300,000 was received by the Company within 30 days of the execution of the agreement. The remaining sponsored research payments are payable in equal quarterly installments over the two years.

In consideration of the license grant, the Company is entitled to receive royalties equal to specified percentages of net sales of products incorporating the licensed technologies. The royalty

percentages increase as certain cumulative and annual net sales amounts are attained. The Company could receive milestone payments, up to \$13,750,000 for the initial product and up to \$3,250,000 for the second product developed from a single compound derived from the licensed technologies. The Company could also receive, under certain circumstances, additional milestone payments, for an additional compound, as defined in the agreement, developed from the licensed technologies. Such milestone payments are contingent upon the Company meeting the milestones set forth in the agreement, and, accordingly, if the Company is unable to meet such milestones, the Company will not receive such milestone payments. The Company reached the first research milestone in November 1997 related to the delivery of sufficient sortase to allow the commencement of screening assay development. During the year ended December 31, 1997, the Company recognized \$675,000 in revenue related to this agreement.

Current Resources

The Company anticipates that its current resources will be sufficient to finance the Company's currently anticipated needs for operating and capital expenditures through at least 1999. In addition, the Company will attempt to generate additional working capital through a combination of collaborative agreements, strategic alliances and equity and debt financings. However, no assurance can be provided that additional capital will be obtained through these sources. In addition, until September 1998, the prior written consent of Sunrise is required if the Company seeks to raise additional funds through the issuance of equity.

The Company's working capital and capital requirements will depend upon numerous factors, including progress of the Company's research and development programs; pre-clinical and clinical testing; timing and cost of obtaining regulatory approvals; levels of resources that the Company devotes to the development of manufacturing and marketing capabilities; technological advances; status of competitors; and ability of the Company to establish collaborative arrangements with other organizations.

Until required for operations, the Company's policy is to invest its cash reserves in bank deposits, certificates of deposit, commercial paper, corporate notes, U.S. government instruments and other investment-grade quality instruments.

At December 31, 1997, the Company had \$10,674,104 in cash and cash equivalents, and working capital of \$10,413,878.

Product Research and Development Plan

The Company's plan of operation for the next 12 months will consist primarily of research and development and related activities including:

Formulation and further pre-clinical and clinical development of the Company's vaccine vector candidates for strep throat, periodontal disease and other vaccine applications.

Formulation and further pre-clinical and clinical development of the Company's vaccine candidate for strep throat, and if successful, the initiation of clinical trials.

Further development of the Company's anti-infectives programs aimed at blocking the function or expression of certain bacterial surface proteins in both gram-positive and gram-negative bacteria.

Continued funding of the academic research on mucosal vaccine delivery systems, mucosal vaccine candidates and novel anti-infectives currently being conducted at a number of universities.

Continuing the prosecution and filing of patent applications.

Hiring additional employees, including filling senior positions in the areas of business development and regulatory and clinical affairs.

The actual research and development and related activities of the Company may vary significantly from current plans depending on numerous factors, including changes in the costs of such activities from current estimates, the results of the Company's research and development programs, the results of clinical studies, the timing of regulatory submissions, technological advances, determinations as to commercial potential and the status of competitive products. The focus and direction of the Company's operations will also be dependent upon the establishment of collaborative arrangements with other companies, and other factors.

Item 7. Financial Statements and Supplementary Data

The information called for by this Item 7 is included following the "Index to Financial Statements" contained in this Annual Report on Form 10-KSB.

Item 8. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

PART III

Item 10. Directors and Executive Officers of the Registrant

The directors, officers and key employees of the Company are as follows:

Name	Age	Position
David H. de Weese	54	Chairman and Chief Executive Officer
Walter Flamenbaum, M.D.	55	President and Chief Operating Officer
Joshua D. Schein, Ph.D*	37	Executive Vice President, Chief Financial Officer, Secretary and Director

Judson A. Cooper	37	Executive Vice President, Director
Thomas N. Konatich*	52	Chief Financial Officer, Treasurer and Secretary
Dennis E. Hruby, Ph.D	45	Vice President of Research
Donald S. Howard	69	Director
Terence E. Downer	58	Director
- -----		

* Effective April 1, 1998, Mr. Konatich will replace Dr. Schein as Chief Financial Officer of the Company.

David H. de Weese has served as Chairman of the Board of Directors and Chief Executive Officer of the Company since November 1996. Mr. DeWeese also served as President of the Company from November 1996 until February 1998. Prior to joining the Company, Mr. de Weese served as a director and a consultant to Biovector Therapeutics, S.A., a developer of drug delivery technology based in France, and as an advisor to Paul Capital Partners, L.P., a private equity investment manager with whom he maintains a consulting relationship. From 1993 to 1995, Mr. de Weese was President, Chief Executive Officer and a Director of M6 Pharmaceuticals, Inc, a biopharmaceutical company. From 1986 to 1992, Mr. de Weese was the President, Chief Executive Officer, a Director and a founder of Cygnus Therapeutic Systems (now Cygnus, Inc.), a developer and manufacturer of transdermal drug delivery systems. Prior to that, Mr. de Weese co-founded Medical Innovations Corporation, a medical device business currently a division of Ballard Medical Products, Inc., and was Chairman of the Board, President and Chief Executive Officer of Machine Intelligence Corporation, a developer of computer software and hardware. Mr. de Weese is a director of Bioject Medical Technologies, Inc., a publicly traded biotechnology company. Mr. de Weese received his M.B.A. from the Harvard University Graduate School of Business.

Walter Flamenbaum, M.D. became President and Chief Operating Officer of the Company in February 1998. Prior to joining the Company, he served as principal in The Plumtree Group, Ltd., which provided consulting services to the biomedical industry. From 1993 to 1997, he was President, Chief Executive Officer and a Director of Therics, Inc., a medical products company which he founded in association with the Johnson & Johnson Development Corporation. From 1986 to 1993, Dr. Flamenbaum was President, a Director and Chief Medical Officer of Health & Sciences Research, Inc., and its predecessor companies, a contract research organization which he founded. He was also Group Vice President, Clinical Research Group, of TSI Incorporated. Prior to 1992, he was Chief, Division of Nephrology at the Beth Israel Medical Center, New York, NY, and remains a clinical professor of medicine at the Mount Sinai School of Medicine. Dr. Flamenbaum received his MD degree from Columbia University's College of Physicians & Surgeons.

Joshua D. Schein, Ph. D. has served as an Executive Vice President of the Company since December 1996 and Chief Financial Officer, Secretary and a Director of the Company since December 1995. Dr. Schein is being replaced by Mr. Konatich as Chief Financial Officer as of April 1, 1998. Dr. Schein is a Director of DepoMed, Inc., a publicly traded biotechnology company. Dr. Schein also serves as Executive Vice President and Director of Virologix Corporation, a private biotechnology company ("Virologix"). Additionally, Dr. Schein

serves as Chief Financial Officer and a Director of Callisto Pharmaceuticals, Inc., a privately held, development stage, pharmaceutical company (Callisto"). From October 1994 to December 1995, Dr. Schein served as a Vice President of Investment Banking at Josephthal, Lyon and Ross, Incorporated, an investment banking firm. From June 1991 to September 1994, Dr. Schein was a Vice President at D. Blech & Company, Incorporated, a merchant bank that invested in the biopharmaceutical industry. Dr. Schein received a Ph.D. in neuroscience from the Albert Einstein College of Medicine and an MBA from the Columbia Graduate School of Business. Dr. Schein is a principal of CSO Ventures LLC ("CSO") and Prism Ventures LLC ("Prism"), privately held limited liability companies. See "Certain Relationships and Related Transactions."

Judson A. Cooper has served as Executive Vice President of the Company since November 1996 and a Director of the Company since December 1995 and served as President from December 1995 until November 1996. Mr. Cooper is a Director of DepoMed, Inc., a publicly traded biotechnology company. Mr. Cooper also serves as Chief Financial Officer and Director of Virologix. Additionally, Mr. Cooper serves as President and a Director of Callisto. Mr. Cooper had been a private investor from September 1993 to December 1995. From 1991 to 1993, Mr. Cooper served as a Vice President of D. Blech & Company, Incorporated. Mr. Cooper is a graduate of the Kellogg School of Management. Mr. Cooper is a principal of CSO and of Prism. See "Certain Relationships and Related Transactions."

Thomas N. Konatich will serve as Chief Financial Officer and Treasurer of the Company beginning on April 1, 1998. From November 1996 through March 1998, Mr. Konatich served as Chief Financial Officer and a Director of Innapharma, Inc., a privately held pharmaceutical development company. From 1993 through November 1996, Mr. Konatich served as Vice President and Chief Financial Officer of Seragen, Inc., a publicly traded biopharmaceutical development company. From 1988 to 1993, he was Treasurer of Ohmicron Corporation, a venture capital firm. Mr. Konatich has an MBA from the Columbia Graduate School of Business.

Dennis F. Hruby, Ph.D. has served as Vice-President of Research of the Company since April 1, 1997. From January 1996 through March 1997, Dr. Hruby served as a senior scientific advisor to the Company. Dr. Hruby is a Professor of Microbiology at Oregon State University, and from 1990 to 1993 was Director of the Molecular and Cellular Biology Program and Associate Director of the Center for Gene Research and Biotechnology. From 1993 to 1995, Dr. Hruby served as Vice-President of Research for M6 Pharmaceuticals, Inc. Dr. Hruby specializes in virology and cell biology research, and the use of viral and bacterial vectors to produce recombinant vaccines. Dr. Hruby has published more than 100 research, review articles and book chapters. He is a member of the American Society of Virology, the American Society for Microbiology and a fellow of the American Academy of Microbiology. Dr. Hruby received a Ph.D. in microbiology from the University of Colorado Medical Center and a B.S. in microbiology from Oregon State University.

Donald S. Howard has served as a Director of the Company since September 1997. Mr. Howard has served as a consultant to a number of financial institutions since 1994. Mr. Howard served as Executive Vice President and Chief Financial Officer and a Managing Director of

Salomon Brothers from 1988 to 1993. From 1980 to 1988, Mr. Howard served as Executive Vice President and Chief Financial Officer of Citicorp, Inc. Prior to that time, Mr. Howard held numerous positions at Citicorp, Inc. Mr. Howard is currently a director of Green Garden Inc., Consolidated Purchasing Services, Bank Leumi [USA] and Green Tree Financial Corp.

Terence E. Downer has served as a Director of the Company since July 1, 1997. Mr. Downer served as Vice President, Corporate Development of Janssen Pharmaceutica, Inc., an affiliate of Johnson & Johnson, from 1991 to June 1997. Mr. Downer has worked in the pharmaceutical industry for Johnson & Johnson and its affiliates for over 30 years and has held senior positions in sales, marketing, research and business development. In addition to Janssen Pharmaceutica, Inc., Mr. Downer was also involved in starting up two other companies for Johnson & Johnson, Cyclex, Inc. and Critikon, Inc. Mr. Downer is on the Board of the National Organization of Orthopaedic Nurses and is the New Jersey Program Chair for the Licensing Executive Society.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 (the "Exchange Act") requires the Company's officers and directors, and persons who own more than ten percent of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the Securities and Exchange Commission. Officers, directors and greater than ten-percent stockholders are required by SEC regulation to furnish the Company with copies of all Section 16(a) reports that they file.

Based solely upon review of the copies of such reports furnished to the Company and written representations from certain of the Company's executive officers and directors that no other such reports were required, the Company believes that during 1997 all Section 16(a) filing requirements applicable to its officers, directors and greater than ten-percent beneficial owners were complied with on a timely basis.

Item 10. Executive Compensation

The following table summarizes the total compensation of the Chief Executive Officer of the Company for 1997 and the two previous years, as well as all other executive officers of the Company who received compensation in excess of \$100,000 for 1997.

Summary Compensation Table

Name/ Principal Position	Year	Annual Compensation			Long Term Compensation	
		Salary	Bonuses	Other Annual Compensation	Stock Underlying Options/Warrants	All Other Compensation
David H. de Weese, Chairman	1997	\$231,923	--	-- (5)	16,667	--
Chief Executive Officer and President	1996	21,635 (1)	--	-- (5)	477,683	--

Name/ Principal Position	Annual Compensation				Long Term Compensation	
	Year	Salary	Bonuses	Other Annual Compensation	Stock Underlying Options/Warrants	All Other Compensation
Joshua D. Schein, Ph.D., Executive Vice President, Chief Financial Officer and Director	1997	154,616 (2)	--	-- (5)	16,667	--
	1996	153,116 (2)	--	-- (5)	16,667	--
Judson A. Cooper, Executive Vice President and Director	1997	154,616 (3)	--	-- (5)	16,667	--
	1996	153,116 (3)	--	-- (5)	16,667	--
Dennis E. Hruby, Ph.D., Vice President of Research	1997	78,549 (4)	--	27,366	10,000	--
	1996	50,000	--	-- (5)	--	--

- (1) Mr. de Weese became Chairman, President and Chief Executive Officer of the Company in November 1996.
- (2) Does not include Dr. Schein's share (\$40,000) of payments made to CSO. See "Certain Relationships and Related Transactions."
- (3) Does not include Mr. Cooper's share (\$40,000) of payments made to CSO. See "Certain Relationships and Related Transactions."
- (4) Dr. Hruby became Vice President of Research on April 1, 1997. He was a consultant to the Company in 1996 and the first quarter of 1997.
- (5) Aggregate amount does not exceed the lesser of \$50,000 or 10% of the total annual salary and bonus for the named officer.

The following tables set forth information with respect to the named executive officers concerning the grant, repricing and exercise of options during the last fiscal year and unexercised options held as of the end of the fiscal year.

Option Grants for the Year Ended December 31, 1997

Name	Common Stock Underlying Options Granted(1)	% of Total Options Granted to Employees	Exercise Price Per Share	Expiration Date
David H. de Weese.	16,667	27.8%	\$5.00	11/18/07
Joshua D. Schein..	16,667	27.8%	\$5.00	9/15/02
Judson A. Cooper..	16,667	27.8%	\$5.00	9/15/02
Dennis E. Hruby...	10,000	16.6%	\$5.00	4/1/07

- (1) All options were granted pursuant to the Company's 1996 Stock Option Plan.

Aggregated Option Exercises for the Year Ended December 31, 1997 and Option Values as of December 31, 1997:

Name	Shares Acquired Value on Exercise		Number of Securities Underlying Unexercised Options at December 31, 1997		Value of Unexercised In-the-Money Options(1)	
	Realized	Unrealized	Exercisable	Unexercisable	Exercisable	Unexercisable
David H. de Weese(2).....	--	--	33,334	--	\$27,084	--
Joshua D. Schein, Ph.D...	--	--	33,334	--	52,084	--
Judson A. Cooper.....	--	--	33,334	--	52,084	--
Dennis E. Hruby.....	--	--	10,000	--	0	--

- (1) Based upon the closing price on December 31, 1997 as reported on the Nasdaq SmallCap Market and the exercise price per option.
- (2) Excludes warrants, 50% of which were exercisable on December 31, 1997, to purchase 461,016 shares of Common Stock at an exercise price of \$3.00 per share.

As of January 1, 1996, the Company adopted its 1996 Incentive and Non-Qualified Stock Option Plan (the "Plan"), pursuant to which stock options may be granted to key employees, consultants and outside directors.

The Plan is administered by a committee (the "Committee") comprised of disinterested directors. The Committee will determine persons to be granted stock options, the amount of stock options to be granted to each such person, and the terms and conditions of any stock options as permitted under the Plan. The members of the Committee have not yet been appointed.

Both Incentive Options and Nonqualified Options may be granted under the Plan. An Incentive Option is intended to qualify as an incentive stock option within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"). Any Incentive Option granted under the Plan will have an exercise price of not less than 100% of the fair market value of the shares on the date on which such option is granted. With respect to an Incentive Option granted to an employee who owns more than 10% of the total combined voting stock of the Company or of any parent or Subsidiary of the Company, the exercise price for such option must be at least 110% of the fair market value of the shares subject to the option on the date the option is granted. A Nonqualified Option (i.e., an option to purchase Common Stock that does not meet the Code's requirements for Incentive Options) must have an exercise price of at least the fair market value of the stock at the date of grant.

The Plan provides for the granting of options to purchase 333,333 shares of Common Stock, of which 117,061 options were outstanding as of December 31, 1997,

Employment Contracts and Directors Compensation

David H. de Weese, Chairman and Chief Executive Officer of the Company, has an employment agreement with the Company which expires in November 1999 and is cancelable by the Company only for cause, as defined in the agreement. Mr. de Weese currently receives an annual base salary of \$225,000 and 16,667 stock options per year, exercisable at the fair market value on the date of grant, and is eligible to receive additional stock options and bonuses at the discretion of the Board of Directors. In addition, Mr. de Weese will receive a cash payment equal to 1.5% of the total consideration received by the Company in a transaction resulting in a change of ownership of at least 50% of the outstanding Common Stock of the Company. In connection with Mr. de Weese's employment agreement, Mr. de Weese received warrants to purchase 461,016 shares of Common Stock at \$3.00 per share. Warrants to purchase 50% of such shares are currently exercisable and the remaining warrants become exercisable on a pro rata basis on the second and third anniversaries of the agreement.

Dr. Walter Flamenbaum, President and Chief Operating Officer, has an employment agreement with the Company which expires in January 2000 and is cancelable by the Company only for cause, as defined in the agreement. Dr. Flamenbaum receives an annual base salary of \$225,000 and received options to purchase 100,000 shares of Common Stock at an exercise price of 4.25 per share. Options to purchase 20,000 of such shares are currently vested and the remaining options become vest on a pro rata basis on the first, second, third and fourth anniversaries of the agreement. Dr. Flamenbaum is also eligible to receive additional stock options and bonuses at the discretion of the Board of Directors. In addition, Dr. Flamenbaum received a sign-on bonus of \$75,000 payable in equal monthly installments during the first year of the agreement.

Dr. Joshua Schein, an Executive Vice President and Chief Financial Officer (through March 1998) of the Company, has an employment agreement with the Company which expires in December 1998 and is cancelable by the Company only for cause, as defined in the agreement. Dr. Schein receives an annual base salary of \$150,000 and 16,667 stock options per year, exercisable at the fair market value on the date of grant, and is eligible to receive additional stock options and bonuses at the discretion of the Board of Directors. In addition, Dr. Schein will receive a cash payment equal to 1.5% of the total consideration received by the Company in a transaction resulting in a change of ownership of at least 50% of the outstanding Common Stock of the Company.

Judson Cooper, an Executive Vice President of the Company, has an employment agreement with the Company which expires in December 1998 and is cancelable by the Company only for cause, as defined in the agreement. Mr. Cooper currently receives an annual base salary of \$150,000 and 16,667 stock options per year, exercisable at the fair market value on the date of grant, and is eligible to receive additional stock options and bonuses at the discretion of the Board of Directors. In addition, Mr. Cooper will receive a cash payment equal to 1.5% of the total consideration received by the Company in a transaction resulting in a change of ownership of at least 50% of the outstanding Common Stock of the Company.

Thomas Konatich will become Chief Financial Officer of the Company as of April 1, 1998. Mr. Konatich's employment agreement with the Company expires on April 1, 2000 and is cancelable by the Company only for cause, as defined in the agreement. Mr. Konatich receives an annual base salary of \$170,000 and received options to purchase 95,000 shares of Common Stock, exercisable at the fair market value on April 1, 1998. The options vest on a pro rata basis on the first, second, third and fourth anniversaries of the agreement. Mr. Konatich is also eligible to receive additional stock options and bonuses at the discretion of the Board of Directors.

Dr. Dennis Hruby, Vice President of Research of the Company, has an employment agreement with the Company which expires on January 1, 2000 and is cancelable by the Company only for cause, as defined in the agreement. Dr. Hruby received options to purchase 40,000 shares of Common Stock at an exercise price of 4.63 per share. The options become exercisable on a pro rata basis on the first, second, third and fourth anniversaries of the agreement. Dr. Hruby is eligible to receive additional stock options and bonuses at the discretion of the Board of Directors.

Directors' Compensation. In 1997, outside Directors earned \$1,500 for each Board meeting attended.

Item 11. Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information with respect to the beneficial ownership of the Company's Common Stock as of March 27, 1998, by (i) each person who was known by the Company to own beneficially more than 5% of any class of the Company's Common Stock, (ii) each of the Company's Directors, and (iii) all current Directors and executive officers of the Company as a group. Except as otherwise noted, each person listed below has sole voting and dispositive power with respect to the shares listed next to such person's name.

Name and Address of Beneficial Owner(1)	Amount of Beneficial Ownership(2)	Percentage of Total
-----	-----	-----
David H. de Weese(3)	273,842	4.0%
Judson Cooper(4)	494,350	7.5%
Joshua D. Schein, Ph.D.(5)	494,350	7.5%
Steven M. Oliveira(6)	431,016	6.6%
Richard B. Stone 135 East 57th St., 11th FL New York, NY 10022	414,915	6.3%
Terence E. Downer	0	*
International Sounding Board		

Name and Address of Beneficial Owner(1)	Amount of Beneficial Ownership(2)	Percentage of Total
60 Huntley Way Bridgewater, NJ 08807 Donald S. Howard 3 Hook Harbor Road Atlantic Highlands, NJ 07716	0	*
All Officers and Directors as a Group (seven persons)	1,299,601	18.7%

* Less than 1% of the outstanding shares of Common Stock.

(1) Unless otherwise indicated the address of each beneficial owner identified 420 Lexington Avenue, Suite 620, New York, NY 10170.

(2) Unless otherwise indicated, each person has sole investment and voting power with respect to the shares indicated. For purposes of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares as of a given date which such person has the right to acquire within 60 days after such date. For purposes of computing the percentage of outstanding shares held by each person or group of persons named above on a given date, any security which such person or persons has the right to acquire within 60 days after such date is deemed to be outstanding for the purpose of computing the percentage ownership of such person or persons, but is not deemed to be outstanding for the purpose of computing the percentage ownership of any other person.

(3) Includes currently exercisable warrants and options to purchase 263,842 shares of Common Stock.

(4) Includes currently exercisable options to purchase 33,334 shares of Common Stock.

(5) Includes currently exercisable options to purchase 33,334 shares of Common Stock.

(6) Mr. Oliveira is a member of CSO. See Item 12 - "Certain Relationships and Related Transactions."

Item 12. Certain Relationships and Related Transactions

The Company entered into a consulting agreement with CSO Ventures LLC ("CSO") pursuant to which CSO provided certain business services to the Company, including business development, licensing, strategic alliances and administrative support. Pursuant to the terms of the agreement, CSO received \$120,000 in 1997. The agreement expired on January 15, 1998. Mr. Cooper, Dr. Schein and Steven Oliveira are the members of CSO.

Effective January 15, 1998, the Company entered into a consulting agreement with Prism Ventures LLC ("Prism") pursuant to which Prism has agreed to provide provided certain business services to the Company, including business development, operations and other advisory services, licensing, strategic alliances, merger and acquisition activity, financings and other corporate transactions. Pursuant to the terms of the agreement, Prism receives an annual fee of \$150,000 and 16,667 stock options per year. The agreement expires on January 15, 2001, and is cancelable by the Company only for cause as defined in the agreement. Mr. Cooper and Dr. Schein are the members of Prism.

PART IV

Item 13. Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a) Financial Statements and Exhibits

(1) FINANCIAL STATEMENTS

Report of Independent Accountants

Balance Sheet at December 31, 1996 and 1997

Statement of Operations for the years ended December 31, 1996 and 1997, and for the period from inception through December 31, 1997

Statement of Changes in Stockholders' Equity for the period from inception through December 31, 1997

Statement of Cash Flows for the years ended December 31, 1996 and 1997, and for the period from inception through December 31, 1997

Notes to Financial Statements

(2) FINANCIAL STATEMENT SCHEDULES

All financial statement schedules are omitted because they are not applicable or the required information is shown in the financial statements or note thereto.

(3) EXHIBITS; EXECUTIVE COMPENSATION PLANS

Exhibits

- 3 Articles of Incorporation and By-Laws
- 3(a) Articles of Incorporation of the Company (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 3(b) Bylaws of the Company (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 Instruments defining the rights of holders

- 4 (a) Form of Common Stock Certificate (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (b) 1996 Incentive and Non-Qualified Stock Option Plan ++ (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (c) Warrant Agreement dated as of September 15, 1996 between the Company and Vincent A. Fischetti (1) (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (d) Warrant Agreement dated as of November 18, 1996 between the Company and David de Weese (1) (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (e) Form of Bridge Loan Letter Agreement for Bridge Investors (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (f) Form of Promissory Note for Bridge Investors (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (g) Form of Warrant Agreement for Bridge Investors (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (h) Form of Registration Rights Agreement for Bridge Investors (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 4 (i)* Stock Purchase Agreement between the Company and MedImmune, Inc., dated as of February 10, 1998
- 4 (j)* Registration Rights Agreement between the Company and MedImmune, Inc., dated as of February 10, 1998
- 10 Material Contracts
- 10 (a) License and Research Support Agreement between the Company and The Rockefeller University, dated as of January 31, 1996; and Amendment to License and Research Support Agreement between the Company and The Rockefeller University, dated as of October 1, 1996(2) (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10 (b) Research Agreement between the Company and Emory University, dated as of

January 31, 1996(2) (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).

- 10(c) Research Support Agreement between the Company and Oregon State University, dated as of January 31, 1996(2) (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(d) Employment Agreement between the Company and Dr. Joshua D. Schein, dated as of January 1, 1996(1) ++ (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(e) Employment Agreement between the Company and Judson A. Cooper, dated as of January 1, 1996; and Amendment No. 1 to Employment Agreement between the Company and Judson A. Cooper, dated as of November 18, 1996(1) ++ (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(f) Employment Agreement between the Company and Dr. Kevin F. Jones, dated as of January 1, 1996 ++ (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(g) Employment Agreement between the Company and David de Weese, dated as of November 18, 1996(1) ++ (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(h) Consulting Agreement between the Company and CSO Ventures LLC, dated as of January 1, 1996 (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(i) Consulting Agreement between the Company and Dr. Vincent A. Fischetti, dated as of January 1, 1996 (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(j) Consulting Agreement between the Company and Dr. Dennis Hruby, dated as of January 1, 1996 (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(k) Letter Agreement between the Company and Dr. Vincent A. Fischetti, dated as of March 1, 1996 (Incorporated by reference to Form SB-2 Registration Statement of the Company dated March 10, 1997 (No. 333-23037)).
- 10(l) Employment Agreement between the Company and Dr. Dennis Hruby, dated as of April 1, 1997 ++ (Incorporated by reference to Amendment No. 1 to Form SB-2

Registration Statement of the Company dated July 11, 1997 (No. 333-23037)).

- 10(m) Clinical Trials Agreement between the Company and National Institute of Allergy and Infectious Diseases, dated as of July 1, 1997 (Incorporated by reference to Amendment No. 1 to Form SB-2 Registration Statement of the Company dated July 11, 1997 (No. 333-23037)).
- 10(n) Research Agreement between the Company and The Research Foundation of State University of New York, dated as of July 1, 1997(2) (Incorporated by reference to Amendment No. 1 to Form SB-2 Registration Statement of the Company dated July 11, 1997 (No. 333-23037)).
- 10(o) Collaborative Research and License Agreement between the Company and American Home Products Corporation, dated as of July 1, 1997(2) (Incorporated by reference to Amendment No. 3 to Form SB-2 Registration Statement of the Company dated September 2, 1997 (No. 333-23037)).
- 10(p) Collaborative Evaluation Agreement between the Company and Chiron Corporation, dated as of July 1, 1997 (Incorporated by reference to Amendment No. 1 to Form SB-2 Registration Statement of the Company dated July 11, 1997 (No. 333-23037)).
- 10(q) Consulting Agreement between the Company and Dr. Scott Hultgren, dated as of July 9, 1997 (Incorporated by reference to Amendment No. 1 to Form SB-2 Registration Statement of the Company dated July 11, 1997 (No. 333-23037)).
- 10(r) Letter of Intent between the Company and MedImmune, Inc., dated as of July 10, 1997 (Incorporated by reference to Amendment No. 1 to Form SB-2 Registration Statement of the Company dated July 11, 1997 (No. 333-23037)).
- 10(s)* Research Collaboration and License Agreement between the Company and The Washington University, dated as of February 6, 1998 (2)+.
- 10(t)* Technology Transfer Agreement between the Company and MedImmune, Inc., dated as of February 10, 1998.+
- 10(u)* Employment Agreement between the Company and Dr. Dennis Hruby, dated as of January 1, 1998.++
- 10(v)* Employment Agreement between the Company and Dr. Walter Flamenbaum, dated as of February 1, 1998.++
- 10(w)* Employment Agreement between the Company and Thomas Konatich, dated as of April 1, 1998.++

10(x)* Consulting Agreement between the Company and Prism Ventures LLC, dated as of January 15, 1998.

11 Statement re Computation of Per Share Earnings

11(a)* Statement re Computation of Per Share Earnings

- -----

1 These agreements were entered into prior to the reverse split of the Company's Common Stock and, therefore, do not reflect such reverse split.

2 Confidential information is omitted and identified by a * and filed separately with the SEC pursuant to a request for Confidential Treatment.

* Filed herewith

+ Filed without exhibits and schedules (to be provided supplementally upon request of the Commission).

++ This document is a management contract or compensatory plan or arrangement

(b) Reports on Form 8-K

No reports on Form 8-K were filed by the registrant during the fourth quarter of 1997.

SIGNATURES

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

SIGA PHARMACEUTICALS, INC.

Date: March 31, 1998

By: /s/ David de Weese

David de Weese
Chairman of the Board and Chief Executive
Officer (Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement or amendment has been signed below by the following persons in the capacities and on the dates indicated:

Signatures -----	Title -----	Date -----
/s/ Joshua D. Schein ----- Joshua D. Schein	Chief Financial Officer (Principal Accounting and Financial Officer), Executive Vice President, Secretary and Director	March 31, 1998
/s/ Judson A. Cooper ----- Judson Cooper	Executive Vice President and Director	March 31, 1998
/s/ Terence E. Downer ----- Terence E. Downer	Director	March 31, 1998
/s/ Donald S. Howard ----- Donald S. Howard	Director	March 31, 1998

SIGA Pharmaceuticals, Inc.
(A development stage company)
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Report of Independent Accountants

To the Board of Directors and Stockholders
of SIGA Pharmaceuticals, Inc.

In our opinion, the accompanying balance sheet and related statements of operations, of cash flows and of changes in stockholders' equity present fairly, in all material respects, the financial position of SIGA Pharmaceuticals, Inc. (a development stage company) at December 31, 1996 and 1997, and the results of its operations for the years ended December 31, 1996 and 1997, and for the period from inception through December 31, 1997, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audits of these statements in accordance with generally accepted auditing standards which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

Price Waterhouse LLP
New York, New York
March 2, 1998

SIGA Pharmaceuticals, Inc.
(A development stage company)
Balance Sheet

	December 31,	
	1996	1997
	-----	-----
Assets		
Current assets		
Cash and cash equivalents	\$ 42,190	\$ 10,674,104
Accounts receivable	--	150,000
Prepaid sponsored research	370,798	11,684
Prepaid expenses and other current assets	--	43,698
Deferred offering costs	115,688	--
	-----	-----
Total current assets	528,676	10,879,486
Prepaid sponsored research	30,208	--
Equipment, net	21,425	29,814
Other assets	609	142,841
	-----	-----
Total assets	\$ 580,918	\$ 11,052,141
	=====	=====
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 92,241	\$ 224,623
Accrued expenses	22,260	174,548
Patent preparation fees payable	66,437	66,437
	-----	-----
Total liabilities	180,938	465,608
	-----	-----
Commitments and contingencies		
(Notes 6, 7, 8, 9 and 10)	--	--
Stockholders' equity		
Preferred stock (.0001 par value, 10,000,000 shares authorized, none issued and outstanding)	--	--
Common stock (.0001 par value, 25,000,000 shares authorized, 3,367,183 and 6,242,182 shares issued and outstanding at December 31, 1996 and December 31, 1997 respectively)	337	624
Additional paid-in capital	2,668,819	15,049,723
Stock subscriptions outstanding	--	--
Deficit accumulated during the development stage	(2,269,176)	(4,463,814)
	-----	-----
Total stockholders' equity (deficit)	399,980	10,586,533
	-----	-----
Total liabilities and stockholders' equity	\$ 580,918	\$ 11,052,141
	=====	=====

The accompanying notes are an integral part of these financial statements.

SIGA Pharmaceuticals, Inc.
(A development stage company)
Statement of Operations

	Year Ended 1996	December 31, 1997	December 28, 1995 (Inception) to December 31, 1997
	-----	-----	-----
Revenue			
Research and development contracts		\$ 675,000	\$ 675,000
Operating expenses			
General and administrative (including amounts to related parties of \$444,000 and \$429,231 for the years ended December 31, 1996 and 1997, respectively)	\$ 787,817	1,554,686	2,343,503
Research and development (including amounts to related parties of \$75,000 and \$77,831 for the years ended December 31, 1996 and 1997, respectively)	662,205	946,785	1,608,990
Patent preparation fees	452,999	287,207	740,206
Stock option and warrant compensation	367,461	68,582	436,043
	-----	-----	-----
Total operating expenses	2,270,482	2,857,260	5,128,742
	-----	-----	-----
Interest income/(expense)	2,306	(12,378)	(10,072)
	-----	-----	-----
Net loss	\$ (2,268,176)	\$ (2,194,638)	\$ (4,463,814)
	=====	=====	=====
Basic and diluted loss per share	\$ (.75)	\$ (.52)	
	=====	=====	
Weighted average common shares outstanding used for basic and diluted loss per share	3,020,990	4,217,044	
	=====	=====	

The accompanying notes are an integral part of these financial statements.

SIGA Pharmaceuticals, Inc.
(A development stage company)
Statement of Changes in Stockholders' Equity

	Shares	Par Value	Additional Paid-in Capital	Stock Subscriptions Outstanding	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficit)
Issuance of common stock at inception	2,079,170	\$ 208	\$ 1,040	\$ (1,248)		
Net loss	--	--	--	--	\$ (1,000)	\$ (1,000)
Balances at December 31, 1995	2,079,170	208	1,040	(1,248)	(1,000)	(1,000)
Net proceeds from issuance and sale of common stock	1,038,008	104	1,551,333	--	--	1,551,437
Net proceeds from issuance and sale of common stock	250,004	25	748,985	--	--	749,010
Receipt of stock subscriptions outstanding	--	--	--	1,248	--	1,248
Issuance of compensatory options and warrants	--	--	367,461	--	--	367,461
Net loss	--	--	--	--	(2,268,176)	(2,268,176)
Balances at December 31, 1996	3,367,182	337	2,668,819		(2,269,176)	399,980
Net proceeds from issuance and sale of common stock	2,875,000	287	12,179,322			12,179,609
Issuance of warrants with bridge notes			133,000			133,000
Stock option and warrant compensation	--	--	68,582	--	--	68,582
Net loss	--	--	--	--	(2,194,638)	(2,194,638)
Balance at December 31, 1997	6,242,182	\$ 624	\$ 15,049,723	\$ --	\$ (4,463,814)	\$ 10,586,533

The accompanying notes are an integral part of these financial statements.

SIGA Pharmaceuticals, Inc.
(A development stage company)
Statement of Cash Flows

	Year Ended		December 28,
	December 31,	December 31,	1995 (Inception)
	1996	1997	to December 31, 1997
Cash flows from operating activities			
Net loss	\$ (2,268,176)	\$ (2,194,638)	\$ (4,463,814)
Adjustments to reconcile net loss to net cash used in operating activities			
Depreciation	7,249	9,212	16,461
Stock option and warrant compensation	367,461	68,582	436,043
Amortization of debt discount	--	133,000	133,000
Changes in assets and liabilities			
Prepaid sponsored research	(401,006)	389,322	(11,684)
Accounts receivable	--	(150,000)	(150,000)
Other current assets	6,328	(43,698)	(43,698)
Accounts payable and accrued expenses	173,001	284,670	465,608
Other assets	--	(142,232)	(142,841)
Net cash used in operating activities	(2,115,143)	(1,645,782)	(3,760,925)
Cash flows from investing activities			
Capital expenditures	(28,674)	(17,601)	(46,275)
Net cash used in investing activities	(28,674)	(17,601)	(46,275)
Cash flows from financing activities			
Net proceeds from issuance of common stock	2,300,447	12,179,609	14,480,056
Receipt of stock subscriptions outstanding	1,248	--	1,248
Deferred offering costs	(115,688)	115,688	--
Proceeds from bridge notes	--	1,000,000	1,000,000
Repayment of bridge notes	--	(1,000,000)	(1,000,000)
Net cash provided from financing activities	2,186,007	12,295,297	14,481,304
Net increase in cash and cash equivalents	42,190	10,631,914	10,674,104
Cash and cash equivalents, beginning of period	--	42,190	--
Cash and cash equivalents, end of period	\$ 42,190	\$ 10,674,104	\$ 10,674,104

There were no cash payments for interest or income taxes for the periods ended December 31, 1996 and 1997.

The accompanying notes are an integral part of these financial statements.

1. Organization and Basis of Presentation

Organization

SIGA Pharmaceuticals, Inc. (the "Company") was incorporated in the State of Delaware on December 28, 1995. The Company is engaged in the discovery, development and commercialization of vaccines, antibiotics, and novel anti-infectives for the prevention and treatment of infectious diseases. The Company's technologies are licensed from third parties and the Company depends on third parties to conduct research on its behalf pursuant to research and consulting agreements.

Basis of presentation

The Company's activities since inception have consisted primarily of sponsoring research and development, performing business and financial planning, preparing and filing patent applications, and raising capital. Accordingly, the Company is considered to be a development stage company.

2. Summary of Significant Accounting Policies

Cash equivalents

Cash equivalents consist of short term, highly liquid investments, with original maturities of less than three months when purchased and are stated at cost. Interest is accrued as earned.

Equipment

Equipment is stated at cost. Depreciation is provided on the straight-line method over the estimated useful lives of the respective assets, none of which exceeds three years.

Deferred offering costs

In connection with the Company's initial public offering ("IPO"), the Company had incurred certain costs which were deferred at December 31, 1996. In 1997, upon completion of the Company's IPO, these costs were charged to equity.

Revenue recognition

Revenue from research and development collaborative contracts are recognized based upon the provisions of the agreements.

Research and development

Research and development costs are expensed as incurred and include costs of third parties who conduct research and development, pursuant to development and consulting agreements, on behalf of the Company. Costs related to the acquisition of technology rights, for which development work is still in process, and that have no alternative future uses, are expensed as incurred and considered a component of research and development costs.

Income taxes

Income taxes are accounted for under the asset and liability method prescribed by Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes." Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be

in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized.

Net loss per common share

Effective December 31, 1997 the Company adopted Financial Accounting Standards No. 128, "Earnings per Share" ("FAS 128") which requires presentation of basic earnings per share ("Basic EPS") and diluted earnings per share ("Diluted EPS") by all entities that have publicly traded common stock or potential common stock (options, warrants, convertible securities or contingent stock arrangements). Basis EPS is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted EPS gives effect to all dilutive potential common shares outstanding during the period. The computation of Diluted EPS does not assume conversion, exercise or contingent exercise of securities that would have an antidilutive effect on earnings.

As required by Securities and Exchange Commission Staff Accounting Bulletin No. 98, ("SAB 98"), previously reported per share information included in the accompanying financial statements have been restated to give effect to the adoption of FAS 128 and SAB 98, resulting in an increase in the net loss per share for the year ended December 31, 1996 of \$.09.

At December 31, 1997, outstanding options to purchase 117,061 shares of common stock, with exercise prices ranging from \$1.50 to \$5.50 have been excluded from the computation of diluted loss per share as they are antidilutive. Outstanding warrants to purchase 949,016 shares of common stock, with exercise prices ranging from \$1.50 to \$6.00 were also antidilutive and excluded from the computation of diluted loss per share at December 31, 1997.

Accounting 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 expenses during the reporting period. Actual results could differ from those estimates.

Fair value of financial instruments

The carrying value of cash and cash equivalents, and accounts payable and accrued expenses approximates fair value due to the relatively short maturity of these instruments.

Concentration of Credit Risk

The Company has cash in bank accounts that exceed the FDIC insured limits. The Company has not experienced any losses on its cash accounts. No allowance has been provided for potential credit losses because management believes that any such losses would be minimal.

Accounting for stock based compensation

During 1996 the Company adopted Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" (SFAS 123). As provided by SFAS 123, the Company has elected to continue to account for its stock-based compensation programs according to the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to

Employees." Accordingly, compensation expense has been recognized to the extent of employee or director services rendered based on the intrinsic value of compensatory options or shares granted under the plans. The Company has adopted the disclosure provisions required by SFAS 123.

New accounting pronouncements

In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income" ("FAS 130"), which requires the presentation of the components of comprehensive income in the company's financial statement for reporting periods beginning subsequent to December 15, 1997. Comprehensive income is defined as the change in the company's equity during a financial reporting period from transactions and other circumstances from non-owner sources (including cumulative translation adjustments, minimum pension liabilities and unrealized gains/losses on available for sale securities). The adoption of FAS 130 is not expected to have a material impact on the Company's financial statements.

In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 131, "Disclosure about Segments of an Enterprise and Related Information" ("FAS 131"), which requires disclosure of information about operating segments in annual financial statements for reporting periods beginning subsequent to December 15, 1997. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The adoption of FAS 131 is not expected to have a material impact on the Company's financial statements.

3. Equipment

Equipment consisted of the following at December 31, 1996 and 1997

	December 31,	
	1996	1997
	-----	-----
Computer equipment	\$ 28,674	\$ 45,768
Furniture & fixture	--	507
	-----	-----
	28,674	46,275
Less - Accumulated depreciation	(7,249)	(16,461)
	-----	-----
Equipment, net	\$ 21,425	\$ 29,814
	=====	=====

4. Stockholders' Equity

In September and October 1997, The Company completed the IPO of 2,875,000 shares of its common stock at an offering price of \$5.00 per share. The Company realized gross proceeds of \$14,375,000 and net proceeds, after deducting underwriting discounts and commissions, and other offering expenses payable by the Company, of \$12,179,609.

In March 1996, the Company completed a private offering of 1,038,008 shares of its common stock at the price of \$1.50 per share, providing gross proceeds of \$1,557,000, and net proceeds, after deducting expenses, of \$1,551,437. In September 1996, the Company completed a second private offering of 250,004 shares of common stock at a price of \$3.00 per share providing gross proceeds of \$750,000 and net proceeds, after deducting expenses, of \$749,010.

Reverse stock split

Effective December 1996, the Company implemented a one for six reverse stock split (without changing the par value thereof) applicable to all issued and outstanding shares of the Company's common stock. All fractional shares resulting from such stock split were rounded up to the next whole share.

Stock option plan and warrants

In January 1996, the Company implemented its 1996 Incentive and Non-Qualified Stock Option Plan (the "Plan") whereby options to purchase up to 333,333 shares of the Company's common stock may be granted to employees, consultants and outside directors of the Company. The exercise period for options granted under the Plan, except those granted to outside directors, is determined by a committee of the Board of Directors. Stock options granted to outside directors pursuant to the Plan must have an exercise price equal to or in excess of the fair market value of the Company's common stock at the date of grant and become exercisable over a period of three years with a third of the grant being exercisable at the completion of each year of service subsequent to the grant. The fair market value of the Company's common stock before its initial public offering in September 1997, was determined by a committee of the Board of Directors. The committee is comprised entirely of employees who receive stock options under the Plan.

Transactions under the Plan are summarized as follows:

	Number of Shares -----	Weighted Average Exercise Price -----
Outstanding at December 31, 1995	--	--
Granted	50,001	\$2.00
	-----	-----
Outstanding at December 31, 1996	50,001	2.00
Granted	67,060	5.03
	-----	-----
Total outstanding at December 31, 1997	117,061	\$3.74
	=====	=====
Options available for future grant	216,272	
	=====	
Weighted average fair value of options granted during 1996	\$.30	
	=====	
Weighted average fair value of options granted during 1997	\$ 2.18	
	=====	

The following table summarizes information about options outstanding at December 31, 1997:

Exercise Price	Options Outstanding			Options Exercisable	
	Number Outstanding at December 31, 1997	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable at December 31, 1997	Weighted Average Exercise Price
\$ 1.50	33,334	8.00	\$1.50	33,334	\$1.50
3.00	16,667	8.90	3.00	16,667	3.00
5.00-5.50	67,060	9.70	5.03	67,060	5.03
	----- 117,061 =====			----- 117,061 =====	

In November 1996, the Company entered into an employment agreement with its President and Chief Executive Officer. Under the terms of the agreement, the employee received warrants to purchase 461,016 shares of common stock at \$3.00 per share. Warrants to purchase 25% of such shares were exercisable upon issuance and the remaining warrants are exercisable on a pro rata basis on the first, second and third anniversaries of the agreement (see Note 9). These warrants expire on November 18, 2006.

The Company applies Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations in accounting for warrants issued to employees and stock options granted under the Plan. During the years ended December 31, 1996 and 1997, compensation expense of \$57,627 and \$57,627, respectively, has been recognized for warrants issued to employees, and \$8,334 and \$3,452, respectively, for options issued pursuant to its stock-based compensation plan calculated based upon the difference between the exercise price of the warrant or option and the fair market value of the Company's common stock on the date of grant. Had compensation cost for warrants issued and stock options granted been determined based upon the fair value at the grant date for awards consistent with the methodology prescribed under SFAS 123 the Company's net loss and loss per share have been increased by approximately \$146,000, or \$.03 per share for the year ended December 31, 1997, and approximately \$73,000, or \$.02 per share for the year ended December 31, 1996.

In September 1996, a consultant was issued warrants to purchase 150,000 shares of its common stock, at an exercise price of \$1.50 per share. The warrants were exercisable upon issuance and expire on the twentieth anniversary of the date of issuance. The Company has recognized non-cash compensation expense of \$301,500 for the year ended December 31, 1996, based upon the fair value of such warrants on the date of grant (see Note 6).

In connection with the issuance of bridge notes (the "Bridge Notes") in the aggregate principal amount of \$1,000,000 in January and February 1997, the Company issued the holders of the Bridge Notes five-year warrants to purchase an aggregate of 100,000 shares of common stock at an exercise price of \$5.00 per share, pursuant to warrant agreements entered into by the Company

and the investors. The warrants are not exercisable until September 1998. The fair value of the warrants, in the amount of \$133,000, issued by the Company in connection with the bridge financing, was recorded as debt discount and was amortized over the six month term of the Bridge Notes.

In June and September 1997, the Company issued two of its directors warrants to purchase an aggregate of 13,000 shares of its common stock, at an exercise price of \$5.00 per share. The warrants are exercisable on the first and second anniversaries of the agreements, on a pro rata basis. The Company has recognized non-cash compensation expense of \$7,503 for the year ended December 31, 1997, based upon the fair value of such warrants on the date of grant.

In September 1997, in connection with the Company's IPO, the Company issued the underwriters warrants to purchase 225,000 shares of common stock at an exercise price of \$6.00 per share. The warrants have a term of five years and are not exercisable until September 1998.

The fair value of the options and warrants granted to employees and the warrants issued to the consultant during 1996 and 1997 ranged from \$.22 to \$2.63 on the date of the respective grant using the Black-Scholes option-pricing model assuming (a) no dividend yield, (b) a risk-free interest rate ranging from 5.06% to 6.26% based on the date of the respective grant, (c) no forfeitures, (d) an expected life of three years and (e) a volatility factor of 0% prior to the date of initial filing of the Company's IPO and 65% thereafter.

5. Income Taxes

The Company has incurred losses since inception which have generated net operating loss carryforwards of approximately \$2,000,000, at December 31, 1997 for federal and state income tax purposes. These carryforwards are available to offset future taxable income and expire in 2011 and 2012 for federal income tax purposes. These losses are subject to limitation on future years' utilization should certain ownership changes occur.

The net operating loss carryforwards and temporary differences, arising primarily from deferred research and development expenses, and noncash compensation expense, result in a gross deferred tax asset at December 31, 1996 and December 31, 1997 of approximately \$877,000 and \$1,752,000, respectively. In consideration of the Company's accumulated losses and the uncertainty of its ability to utilize this deferred tax asset in the future, the Company has recorded a valuation allowance of an equal amount on such date to fully offset the deferred gross tax asset amount.

For the years ended December 31, 1996 and December 31, 1997, the Company's effective tax rate differs from the federal statutory rate principally due to net operating losses and other temporary differences for which no benefit was recorded, state taxes and other permanent differences.

6. Related Parties

Consulting agreements

The Company has entered into a consulting agreement, expiring January 15, 1998, with CSO Ventures LLC ("CSO") under which CSO provides the Company with business development, operations and other advisory services. Pursuant to the agreement CSO is paid an annual consulting fee of \$120,000. Two Executive Vice Presidents of the Company are principals of CSO. The agreement is only cancelable by the Company for cause, as defined in the agreement. During the years ended December 31, 1996 and 1997, the Company incurred expense of \$120,000 pursuant to the agreement.

In connection with the development of its licensed technologies the Company has entered into a consulting agreement with the scientist who developed such technologies, under which the consultant serves as the Company's Chief Scientific Advisor. The scientist, who is a stockholder, shall be paid an annual consulting fee of \$75,000. The agreement, which commenced in January 1996 and is only cancelable by the Company for cause, as defined in the agreement, has an initial term of two years and provides for automatic renewals of three additional one year periods unless either party notifies the other of its intention not to renew. Research and development expense incurred under the agreement amounted to \$75,000 and \$77,831 for the years ended December 31, 1996 and 1997, respectively. During the year ended December 31, 1996, the scientist was issued warrants to purchase 150,000 shares of the Company's common stock at an exercise price of \$1.50 per share (see Note 4).

Employment agreements

The Company has employment agreements, expiring in December 1998, with its two Executive Vice Presidents ("EVPs"), who are principal shareholders of the Company and CSO, under which the EVPs are each to be paid minimum annual compensation of \$150,000. In addition, the Company granted each of the EVPs options to purchase 16,667 shares of the Company's common stock, at an exercise price of \$1.50 per share, upon execution of the respective agreements. During the term of the agreements the EVPs are each to receive annual stock option grants to purchase 16,667 common shares exercisable at the fair market value at the date of grant. Under the provisions of the agreements the EVPs will each receive a cash payment equal to 1.5% of the total consideration received by the Company in a transaction resulting in a greater than 50% change in ownership of the outstanding common stock of the Company. The Company incurred \$324,000 and \$309,231 of expense for the years ended December 31, 1996 and 1997, respectively, pursuant to these agreements.

7. Collaborative Research and License Agreement

In July 1997, the Company entered into a collaborative research and license agreement with a pharmaceutical company. Under the terms of the agreement, the Company has granted the pharmaceutical company an exclusive worldwide license to develop, make, use and sell products derived from specified technologies. The agreement requires the pharmaceutical company to sponsor further research by the Company for the development of the licensed technologies for a period of two years from the effective date of the agreement, in return for payments totaling \$1,200,000. In consideration of the license grant the Company is entitled to receive royalties equal to specified percentages of net sales of products incorporating the licensed technologies. The royalty percentages increase as certain cumulative and annual net sales amounts are attained. The Company could receive milestone payments, under the terms of the agreement of up to \$13,750,000 for the initial product and \$3,250,000 for the second product developed from a single compound derived from the licensed technologies. Such milestone payments are contingent upon the Company making project milestones set forth in the agreement, and, accordingly, if the Company is unable to make such milestones, the Company will not receive such milestone payments. During 1997, the Company recognized \$675,000 in revenue related to this agreement.

8. License and Research Support Agreements

In October 1997, the Company entered into an agreement with a third party for the sale and assignment of certain patent rights to the Company. In exchange for the patent rights, the Company agreed to pay \$50,000 upon the signing of the agreement and up to \$400,000 upon the achievement of certain milestones specified in the agreement. The Company has also granted the third party a royalty free license to use and sell products derived from the patent rights in certain countries. In addition, the Company has agreed to reimburse the third party, up to \$50,000, for patent expenses incurred prior to the execution of this agreement. For the year ended December 31, 1997, the Company has recorded \$100,000 of patent expense related to this agreement.

In January 1996, the Company entered into a license and research support agreement with third parties. Under the terms of the agreement, the Company has been granted an exclusive world-wide license to make, use and sell products derived from the licensed technologies. In consideration of the license grant the Company is obligated to pay royalties equal to a specified percentage of net sales of products incorporating the licensed technologies. In the event the Company sublicenses any technologies covered by the agreement the third parties would be entitled to a significant percentage of the sublicense revenue received by the Company. In addition, the Company is required to make milestone payments, up to \$225,000 per product, for each product developed from the licensed technologies.

The Company has agreed to sponsor further research by the third parties for the development of the licensed technologies for a period of two years from the date of the agreement, in return for a payment of \$725,000 to such third parties. The period of sponsored research will automatically be renewed for additional one-year periods unless terminated by the Company. Amortization of prepaid sponsored research under this agreement was \$332,292 and \$362,500 for the years ended December 31, 1996 and December 31, 1997, respectively. The Company also agreed to reimburse the third parties for costs associated with the preparation, filing and prosecution of patent rights for

the licensed technologies incurred prior to the execution of the license and research support agreement. The agreement is only cancelable by the Company for cause, as defined in the agreement. The Company has expensed \$310,986 of reimbursable patent preparation costs pursuant to the agreement during the year ended December 31, 1996, of which \$66,437 remains accrued at December 31, 1997.

In January 1996, the Company entered into research agreements with third parties. Under the terms of the agreements, the Company has agreed to fund two years of research in return for annual payments of \$183,320. Research and development expense under these agreements amounted to \$175,024 and \$183,322 for the years ended December 31, 1996 and 1997, respectively.

9. Commitments and Contingencies

Employment agreement

In November 1996, the Company entered into an employment agreement, expiring in November 1999, with its President and Chief Executive Officer. Under the terms of the agreement, the employee is to receive annual base compensation of \$225,000 and options to purchase 16,667 shares of the Company's common stock, exercisable at the fair market value on the date of grant. Upon execution of the agreement, the Company granted the employee options to purchase 16,667 shares of its common stock at an exercise price of \$3.00 per share. In addition, the employee was issued warrants to purchase 461,016 shares of common stock at \$3.00 per share (see Note 4). Under the provisions of the agreement, the President will receive a cash payment equal to 1.5% of the total consideration received by the Company in a transaction resulting in a greater than 50% change in ownership of the outstanding common stock of the Company. During the years ended December 31, 1996 and December 31, 1997, the Company incurred \$28,435 and \$231,923, respectively of expense pursuant to the agreement.

Lease commitments

The Company leases certain facilities and office space under operating leases. Minimum future rental commitments under operating leases having noncancelable lease terms in excess of one year are as follows:

Year ended December 31,	
1998	\$ 226,273
1999	228,990
2000	231,789
2001	234,672
2002 and thereafter	439,491

	\$ 1,361,215
	=====

10. Subsequent Events

In February 1998, the Company entered into an agreement with a third party pursuant to which the Company acquired the third party's rights to certain technology, intellectual property and related rights in the field of gram negative antibiotics in exchange for 335,530 shares of the Company's common stock.

In February 1998, the Company entered into a research collaboration and license agreement with a third party. Under the terms of the agreement, the Company has been granted an exclusive world-wide license to make, use and sell products derived from the licensed technologies. In consideration of the license grant, the Company is obligated to pay royalties equal to a specified percentage of net sales of products incorporating the licensed technologies, beginning in the year of the first sale of any product developed from the licensed technologies. In the event the Company sublicenses any technologies covered by this agreement, the third parties are entitled to a significant percentage of the sublicense revenue received by the Company. The Company is also required to make milestone payments, up to \$675,000 per product, for each product developed from the licensed technologies and pay license maintenance fees per year until the first sale of any product developed from the licensed technologies. In addition, the Company has agreed to sponsor further research by the third party for the development of the licensed technologies in the amounts of approximately \$187,000, \$387,000 and \$403,000, for the years ending December 31, 1998, 1999 and 2000, respectively.

In February 1998, the Company entered into two two-year employment agreements with two officers. Under the terms of the agreements, the officers are to receive aggregate annual base compensation of \$395,000 per year. In addition, the Company has granted the officers options to purchase an aggregate of 195,000 shares of the Company's common stock.

Related party transactions (unaudited)

On March 27, 1998, the Company entered into a consulting agreement with a limited liability company in which two of the Company's executive officers are principals. The agreement is effective as of January 15, 1998 and has an initial term of three years and provides for automatic renewals of additional one year periods, unless either party notifies the other of its intent not to renew the agreement. Pursuant to the agreement, the limited liability company is to receive an annual consulting fee of \$150,000 and annual stock option grants to purchase 16,667 shares of the Company's common stock.

SIGA PHARMACEUTICALS, INC.

STOCK PURCHASE AGREEMENT

THIS STOCK PURCHASE AGREEMENT (this "Agreement") is made as of February 10, 1998, by and between SIGA PHARMACEUTICALS, INC. (the "Company"), a Delaware corporation having its principal offices at 666 Third Avenue, 30th Floor, New York, NY 10017, and MEDIMMUNE, INC., a Delaware corporation having its principal offices at 35 W. Watkins Mill Road, Gaithersburg, MD 20878 ("MedImmune").

BACKGROUND

A. MedImmune is selling, transferring and assigning its right, title and interest to certain patents, inventions, discoveries and other technology and information to the Company (the "Transfer") pursuant to a Technology Transfer Agreement between the Company and MedImmune, dated as of the date hereof (the "Technology Transfer Agreement").

B. In consideration of the Transfer, MedImmune will acquire from the Company 335,530 shares of the Company's Common Stock, par value \$.0001 ("Common Stock") upon the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the premises and for other good and lawful considerations, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, do hereby agree:

AGREEMENT

1. Sale of Stock.

1.1 Authorization. The Company has duly authorized the issuance and sale of 335,530 shares of Common Stock (the "Shares") which are being issued and sold in accordance with the terms of this Agreement.

1.2 Sale. Subject to the terms and conditions of this Agreement, at the Closing (as hereinafter defined) the Company shall sell and issue to MedImmune, and MedImmune shall purchase the Shares in exchange and as full consideration for the Transfer.

1.3 Closing. The acquisition and sale of the shares shall take place at the offices of the Company's counsel, Eilenberg & Zivian, New York, NY as of the date of this Agreement, or at such other time and place as the Company and MedImmune shall mutually agree orally or in writing (which time and place are referred to herein as the "Closing"). At the Closing, the Company will deliver to MedImmune certificate(s) representing the Shares.

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1.4 Legend. The certificate(s) representing the Shares to be issued at Closing will bear the following legend:

"THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SHARES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED, OR HYPOTHECATED IN THE ABSENCE OF SUCH REGISTRATION OR AN EXEMPTION THEREFROM UNDER SUCH ACT WHICH IS CONFIRMED IN A LEGAL OPINION SATISFACTORY TO THE COMPANY."

2. Representations and Warranties of the Company. The Company does hereby represent and warrant to MedImmune that:

2.1 Organization and Good Standing. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. The Company has full power and authority to own or lease and to operate its properties and to conduct its business as presently conducted, and to enter into and perform this Agreement and the "Registration Rights Agreement" (as defined below). The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction in which the failure to so qualify would have a material adverse effect on the operations or financial condition of the Company.

2.2 Authority. The execution, delivery and performance by the Company of this Agreement and the Registration Rights Agreement, and the consummation by the Company of the transactions contemplated hereby and thereby, have been duly authorized by all necessary corporate action. This Agreement and the Registration Rights Agreement have been duly executed and delivered by the Company and constitute valid and binding obligations of the Company, enforceable in accordance with their respective terms, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws affecting the rights and remedies of creditors generally and as may be limited by general equitable principles.

2.3 Non-Contravention. The execution and delivery of, performance under and compliance with this Agreement and the Registration Rights Agreement by the Company will not violate any provision of law or any order of any court or government agency, and will not conflict with or result in any breach of any of the terms, conditions, or provisions of, or constitute, with or without the passage of time or the giving of notice, a default under, or give to any person the right to exercise any remedy under, or to accelerate the maturity of, or to cancel, terminate or modify, or require a consent or waiver under, its

Certificate of Incorporation or By-laws (each as amended and presently in effect) or any material indenture, lease, agreement or other instrument to which the Company is a party or by which it or any of its properties is bound.

2.4 Capitalization. The authorized capital stock of the Company (immediately prior to the Closing) is 25,000,000 shares of Common Stock, par value \$.0001 per share, of which 3,367,182 shares are issued and outstanding, and 10,000,000 shares of undesignated preferred stock, par value \$.0001 per share, of which no shares are issued. All of such outstanding common shares have been validly issued and are fully paid and non-assessable. Except as set forth in the "SB-2" (as defined below), there are no outstanding rights of first refusal, preemptive rights or other rights, options (except for stock options granted under the Company's stock option plans), warrants, conversion rights or other agreements, either directly or indirectly, for the purchase or acquisition from the Company of shares of its capital stock. The Company has not previously entered into any agreement with respect to any of its securities granting any registration rights to any person, other than the Registration Rights Agreement.

2.5 Validity of Shares. The Shares have been duly authorized and reserved for issuance and, upon their issuance and delivery in accordance with the terms hereof, will be (i) validly issued, fully paid and non-assessable, and (ii) free and clear of any liens or encumbrances except as specifically contemplated by the Registration Rights Agreement, and (iii) issued in compliance with all applicable federal and state securities laws. The Shares have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or any state securities laws or regulations, and may not be sold unless they are subsequently so registered or an exemption from such registration is available.

2.6 Compliance with Law. The Company is not in default with respect to any judgment, order, writ, injunction, decree or award, and the Company is not in violation of, and the business of the Company is presently being conducted so as to comply in all material respects with, its Certificate of Incorporation, By-laws and applicable Federal, state and local governmental laws and regulations, all to the extent necessary to avoid any material adverse effect on the business, properties or financial condition of the Company.

2.7 Governmental Consent, etc. The Company is not required to obtain any consent, approval or authorization of, or to make any declaration or filing with, any governmental authority as a condition to or in connection with the valid execution, delivery and performance of this Agreement and the Registration Rights Agreement, the valid offer, sale or delivery of the Shares, or the performance by the Company of its obligations in respect thereof.

2.8 Taxes. The Company has filed or caused to be filed, or will file within the time period prescribed by law, all federal and state income tax returns which are required to be filed and has paid or caused to be paid all taxes to the extent that such taxes have become due and payable, except taxes the validity or amount of which is being contested in good faith by appropriate proceedings and with respect to which adequate reserves have been set aside. The Company has paid or caused to be paid, or has established reserves adequate in all material respects, for all Federal income tax liabilities and state income tax liabilities applicable to the

Company for all fiscal years which have not been examined and reported on by the taxing authorities (or closed by applicable statutes).

2.9 Actions Pending. There are no actions, suits, investigations or proceedings pending or, to the best knowledge of the Company, threatened against or affecting the Company or any properties or rights of the Company before any courts, governmental bodies, arbitration boards or other tribunals, which if decided adversely to the Company could reasonably be expected, individually or in the aggregate, to result in any material adverse change in the business, financial condition or results of operations of the Company and its subsidiaries taken as a whole.

2.10 Possession of Franchises, Licenses, etc. The Company possesses all franchises, certificates, licenses, permits and other authorizations from governmental political subdivisions or regulatory authorities that are necessary in any material respect for the ownership, maintenance and operation of their respective properties and assets, and to conduct the businesses now conducted, and the Company is not in violation of any thereof in any material respect.

2.11 Trademarks, Patents, etc. The Company owns free and clear of liens and encumbrances, or possesses the right to use to the extent necessary in its businesses on terms deemed commercially reasonable in the exercise of the Company's business judgement, all material trade secrets, trademarks, trade names, copyrights, patents, patent rights, computer software, licenses, intellectual property rights and other assets considered to be "intangible assets" in accordance with generally accepted accounting principles (collectively, "Intangible Assets") that are necessary in any material respect to the conduct of its business as now operated. To the knowledge of the Company, all material Intangible Assets of the Company are currently valid and enforceable in accordance with the terms under which such material Intangible Assets are owned or held by the Company.]] No Intangible Asset, to the knowledge of the Company, conflicts with or infringes the valid trade secret, trademark, trade name, copyright, patent, patent right or other Intangible Asset of any other person. To the knowledge of the Company, no third party is infringing any material Intangible Asset of the Company. For purposes of this Agreement, the term "Intangible Asset" excludes any item of intellectual property transferred or otherwise assigned by MedImmune to the Company contemporaneously with this Agreement.

2.12 SEC Reports and Financial Statements. The Company's Registration Statement on Form SB-2 filed on March 10, 1997, as amended (the "SB-2") was in substantial compliance with the requirements of its report form on the date of filing, and the SB-2 does not or did not, on the date of filing or the date as of which information is set forth therein, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statement therein, in the light of the circumstances under which they were made, not misleading. The financial statements included in the SB-2, including in each case the related notes, fairly present the financial position of the Company as

of the respective dates of said balance sheets and the results of the operations of the Company for the respective periods covered by said statements of operations and retained earnings and changes in financial position, and have been prepared in accordance with generally accepted accounting principles consistently applied by the Company throughout the periods involved and the Company has no knowledge of any material liabilities contingent or otherwise, not reflected in said balance sheet as of said date or in the SB-2. As of the date hereof, there has been no material adverse change in the financial position or results of operation of the Company since the date of such financial statements.

2.13 No General Solicitation. The sale of the Shares hereunder is exempt from the registration and prospectus delivery requirements of the Securities Act. In connection with the issuance and sale of the Shares, no form of general solicitation or general advertising was used by the Company or any of its representatives including, but not limited to advertisements, articles, notices or other communications published in any newspaper, magazine or similar medium or broadcast over television or radio, or any seminar or meeting whose attendees had been invited by any general solicitation or general advertising.

2.14 Title to Property and Assets. The Company owns its property and assets (exclusive of Intangible Assets) free and clear of all liens and encumbrances, except such encumbrances and liens which arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets. With respect to the property and assets it leases, the Company is in compliance in all material respects with such leases, the failure with which to comply would materially and adversely affect the financial position and results of operations of the Company, and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances, which liens, claims or encumbrances would materially and adversely affect the financial position and results of operations of the Company.

2.15 No Finder's Fees. The Company has not retained any finder, broker, agent or other party with respect to the sale of Shares to MedImmune pursuant to this Agreement, and the Company has not incurred any liability or otherwise become obligated for any brokerage fees, commissions, finder's fees or investment banking fees in connection with the sale of the Shares to MedImmune pursuant to this Agreement.

2.16 Environmental Laws. The property, assets and operation of the Company are in compliance with all applicable federal, state or local laws, rules, orders, decrees, judgments, injunctions, licenses, permits or regulations relating to environmental matters (collectively, the "Environmental Laws"), except to the extent that failure to comply with such Environmental Laws would not have a material adverse effect on the financial position or results of operations of the Company.

2.17 Employee Benefit Plans. Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended, and the

rules and regulations promulgated thereunder, as in effect from time to time ("ERISA"), maintained by the Company or any ERISA Affiliate (as defined below) of the Company is in compliance in all material respects with those provisions of ERISA and the Internal Revenue Code of 1986, as amended, and the regulations thereunder (the "Code") which are applicable to it. Neither the Company nor any of its ERISA Affiliates maintain (or has ever maintained), contributed to (or has ever contributed to) or has any liability with respect to any Plan or any Multiemployer Plan. For purposes of this Section 2.17: (a) "ERISA Affiliate" means any trade and business (whether or not incorporated) which is under common control with the Company within the meaning of Section 4001 of ERISA or is part of a group which includes the Company and which is treated as a single employer under Section 414 of the Code; (b) "Multiemployer Plan" has the meaning set forth in Section 4001(a)(3) of ERISA; and (c) "Plan" means any employee benefit plan which is subject to the provisions of Title IV of ERISA.

3. Representations of MedImmune. MedImmune represents and warrants to the Company that:

3.1 Investment. MedImmune is acquiring the Shares for its own account for investment and not with a view to, or for sale in connection with, any distribution thereof which would be in violation of the securities laws of the United States, and any sale, transfer or other disposition of any Shares will be made in compliance with all applicable provisions of the Securities Act and the rules and regulations promulgated thereunder.

3.2 Authority. MedImmune has full power and authority to enter into, to perform under and comply with this Agreement and this Agreement constitutes the valid and binding obligation of MedImmune enforceable in accordance with its terms, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws limiting the rights and remedies of creditors generally and as may be limited by general equitable principles.

3.3 Independent Investigation. MedImmune, in entering into this Agreement, has relied upon an independent investigation made by it and its representatives, if any. In making its investment decision to purchase the Shares, MedImmune is not relying on any oral or written representations or assurances from the Company or any of its employees, representatives or agents other than as set forth in this Agreement.

3.4 Accredited Investor. MedImmune is an Accredited Investor as such term is defined in the Securities Act, Rule 501(a).

3.5 Non-Contravention. The execution of, performance under and compliance with this Agreement and the Registration Rights Agreement by MedImmune will not violate any provision of law and will not conflict with or result in any breach of any of the terms, conditions, or provisions of, or constitute, with or without the passage of time or the giving of notice, a default under, or require a consent or waiver under, any indenture, lease, agreement

or other instrument to which MedImmune is a party or by which MedImmune or any of its properties is bound except as would not have a material adverse effect on MedImmune's ability to perform its obligations hereunder or pursuant to the Registration Rights Agreement.

4. Closing Conditions. The obligations of each of the parties hereto shall be subject to the satisfaction or waiver of each of the following conditions:

4.1 Execution of Agreements. The execution and delivery of the Technology Transfer Agreement, the other agreements and instruments referenced therein, and the Registration Rights Agreement of even date with this Agreement between the parties (the "Registration Rights Agreement").

4.2 No Judgments or Actions. There shall not be in effect a judgment, order or decree of a court of competent jurisdiction that prevents or delays the consummation of the transactions contemplated hereby. There shall not be any actions, suits, investigations or proceedings pending or to the best knowledge of the Company threatened against or affecting the Company or its properties which, if adversely determined, would interfere with or adversely affect the issuance of the Shares.

4.3 Representations and Warranties. The representations and warranties of the parties hereto shall have been true when made and shall be true at and as of the Closing as though made at and as of such date.

4.4 Approvals and Consents. The Company shall have received all consents and approvals required in connection with the issuance of the Shares, including, without limitation, those required by law and any contract or agreement to which the Company is a party.

4.5 Officer's Certificate. The Company shall have delivered the certificate of an executive officer of the Company to the effect that the foregoing conditions to closing have been satisfied, unless waived by Purchaser.

4.6 Legal Opinion. A written opinion of Eilenberg & Zivian, counsel to the Company, in the form attached to this Agreement as Exhibit A.

4.7 Satisfactory Proceedings. All proceedings taken in connection with the sale of the Shares and all documents relating thereto shall be satisfactory in form and substance to the Company and MedImmune.

5. Adjustment Upon Changes in Capitalization. In the event of any change in the Company's common stock prior to the Closing by reason of stock dividends, split-ups, recapitalizations, combinations, exchanges of shares or the like, the number of Shares provided for hereunder shall be adjusted proportionately.

6 Additional Covenants

6.1 Press Release. Neither of the parties shall issue any press release relating to the sale and acquisition of the Shares and related matters contemplated hereby without the prior approval of the other party, such approval not to be unreasonably withheld. Notwithstanding the foregoing, the parties acknowledge that certain of the material terms of this Agreement are disclosed in the SB-2 and may be described in MedImmune's and the Company's respective filings with the Securities and Exchange Commission and applicable stock exchanges.

6.2 Confidentiality. Subject to Section 6.1 hereof, each party, on its own behalf and on behalf of its representatives and agents, agrees not to use or disclose to third parties any information (i) relating to the contents of this Agreement, (ii) obtained from the other party in connection with the transactions contemplated by this Agreement, or (iii) any relating to the financial affairs of the other party obtained pursuant to the terms of this Agreement or the Registration Rights Agreement (the "Confidential Information"), and will keep all such information confidential; provided that the restrictions imposed by this Section 6.2 shall not apply to the disclosure of any information which (a) was rightfully known by the receiving party at the time of disclosure, (b) is or becomes generally available to the public other than as a result of any breach of the provisions of this Agreement, (c) is rightfully obtained from a third party who is not under similar restrictions of confidentiality and without breach of this Agreement, (d) is independently developed without reference to the Confidential Information, or (e) is required to be disclosed by law or is disclosed upon a party becoming legally compelled to disclose, if, in any such case, such party has used its best efforts to afford the other party the opportunity to obtain an appropriate protective order or other satisfactory assurance of confidential treatment for the Confidential Information required to be so disclosed.

7. Miscellaneous.

7.1 Amendments. This Agreement may not be modified, amended, altered or supplemented except upon the execution and delivery of a written agreement executed by the parties hereto.

7.2 Termination. This Agreement may be terminated by mutual written consent of the parties hereto or by either party if the other party breaches this Agreement.

7.3 Notices. All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly received if so given) by hand delivery, by cable, telegraph or telex, Federal Express or other recognized overnight courier, by mail (registered or certified mail, postage prepaid, return receipt requested) or by facsimile transmission to the respective parties as follows:

If to MedImmune to:

MedImmune, Inc.
35 W. Watkins Mill Road
Gaithersburg, MD 20878
Attn: David M. Mott
Telephone: (301) 527-[[____]]
Facsimile: (301) 527-4200

With a copy to:

Dewey Ballantine
1301 Avenue of the Americas
New York, NY 10019
Attention: Frederick W. Kanner
Telephone: (212) 259-8000
Facsimile: (212) 259-6333

If to the Company, to:

SIGA Pharmaceuticals, Inc.
666 Third Avenue, 30th Floor
New York, NY 10017
Attn.: David H. de Weese
Telephone: (212) 681-4970
Facsimile: (212) 986-2399

With a copy to:

Eilenberg & Zivian
666 3rd Avenue, 30th Floor
New York, NY 10017
Attn.: Jeffrey D. Abbey, Esquire
Telephone: (212) 986-2468
Facsimile: (212) 986-2399

or to such other address as either party may have furnished to the other in writing in accordance herewith, except that notices of change of address shall only be effective upon receipt.

7.4 Survival of Representations and Warranties. All representations and warranties contained herein or made in writing by the Company or MedImmune in connection herewith shall survive the execution and delivery of this Agreement, the sale and purchase of the Shares and any disposition thereof, regardless of any investigation made by or on behalf of MedImmune or the Company, as the case may be.

7.5 Indemnification.

(a) The Company agrees to indemnify MedImmune and each officer, director, employee and affiliate thereof (each a "MedImmune Indemnified Party") for, and hold each MedImmune Indemnified Party harmless from and against: (i) any and all damages, losses and other liabilities of any kind, including without limitation judgements and costs of settlement, and (ii) any and all reasonable out-of-pocket costs and expenses of any kind, including without limitation reasonable fees and disbursements of one counsel for all MedImmune Indemnified Parties (all of which expenses shall be periodically reimbursed as incurred) ((i) and (ii) above collectively referred to as "MedImmune Losses"), in each case suffered or incurred in connection with (A) any investigative, administrative or judicial proceeding or claim, brought or threatened by a third party, relating to or arising out of the execution, delivery or performance of this Agreement or the transactions contemplated hereby and thereby by the Company, (B) any material inaccuracy or alleged material inaccuracy in any representation or warranty made by the Company in this Agreement, and (C) any breach or alleged breach by the Company of any covenant or agreement made in this Agreement, except in each case for all MedImmune Losses suffered by such persons as a result of the gross negligence or willful misconduct of any MedImmune Indemnified Party.

(b) MedImmune agrees to indemnify the Company and each officer, director, employee and affiliate thereof (each a "Company Indemnified Party") for, and hold each Company Indemnified Party harmless from and against: (i) any and all damages, losses and other liabilities of any kind, including without limitation judgements and costs of settlement, and (ii) any and all reasonable out-of-pocket costs and expenses of any kind, including without limitation reasonable fees and disbursements of one counsel for all Company Indemnified Parties (all of which expenses shall be periodically reimbursed as incurred) ((i) and (ii) above collectively referred to as "Company Losses"), in each case suffered or incurred in connection with (A) any investigative, administrative or judicial proceeding or claim, brought or threatened by a third party, relating to or arising out of the execution, delivery or performance of this Agreement or the transactions contemplated hereby and thereby by MedImmune, (B) any material inaccuracy or alleged material inaccuracy in any representation or warranty made by MedImmune in this Agreement, and (C) any breach or alleged breach by MedImmune of any covenant or agreement made in this Agreement, except in each case for all Company Losses suffered by such persons as a result of the gross negligence or willful misconduct of any Company Indemnified Party.

7.6 Governing Law. This Agreement shall be governed by and construed in accordance with the substantive law of the State of Delaware without giving effect to the principles of conflict of laws thereof.

7.7 Counterparts. This Agreement may be executed in several counterparts, each of which shall be an original, but all of which together shall constitute one and the same agreement.

7.8 Entire Agreement. This Agreement, the Technology Transfer Agreement and the Registration Rights Agreement, and all other agreements executed by the parties as contemplated by the foregoing Agreements, constitute the entire agreement between the parties hereto with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral and written, between the parties hereto with respect to the subject matter hereof and thereof.

*****END OF TEXT*****

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed on the day and year first above written.

SIGA PHARMACEUTICALS, INC.

By: /s/ David H. de Weese

David H. de Weese
President and Chief
Executive Officer

MEDIMMUNE, INC.

By: /s/ David Mott

Name: David Mott
Its: President

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "Agreement") is dated as of February 10, 1998 by and between MEDIMMUNE, INC., a Delaware corporation (the "Purchaser"), and SIGA PHARMACEUTICALS, INC., a Delaware corporation (the "Company").

WHEREAS, concurrently with the execution and delivery of this Agreement, the parties hereto have entered into the Stock Purchase Agreement (the "Purchase Agreement"), pursuant to which the Purchaser has purchased 335,530 shares of Common Stock, par value \$.0001 per share, of the Company (the "Securities");

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Securities Subject to this Agreement

(a) Definitions. The terms "Registrable Securities" and "Restricted Securities" mean and include each of the following, subject to Section 1(b): (i) the Securities, (ii) any securities similar to the Securities distributed with a dividend or split relating to the Securities and (iii) any other securities issued in substitution or exchange for any of the Securities in which substitution or exchange such Securities would cease to be outstanding.

(b) Restricted Securities. For the purposes of this Agreement, Restricted Securities shall cease to be Registrable Securities when (i) such Restricted Securities have been effectively registered under the Securities Act of 1933, as amended (the "Act"), and they have been disposed of pursuant to an effective registration statement covering such Registrable Securities, (ii) they are distributed to the public pursuant to Rule 144 (or any similar provisions then in force) under the Act or (iii) they may be sold or transferred pursuant to Rule 144(k) (or any similar provision then in force) under the Act.

2. Demand Registration

(a) Request for Registration. At any time following the first anniversary of the consummation of the initial public offering of the Company's securities, and for a period of ten (10) years thereafter, the Purchaser may make written requests for registration under the Act pursuant to this Section 2 of all or part of the Registrable

Securities (a "Demand Registration"); provided, that, the Company need effect only one Demand Registration pursuant hereto, unless the Company is eligible, at the time of the first such Demand Registration, to file a registration statement on Form S-3 or a similar "short form" in which case, the Company shall be required to effect up to two Demand Registrations pursuant to such Form S-3 or similar "short form" registration statement. Such request will specify the aggregate number of shares of Registrable Securities proposed to be sold and will also specify the intended method or methods of disposition thereof. Unless the Purchaser shall consent in writing (which consent shall not be unreasonably withheld), none of the Company's security holders (other than the Company) shall have the right to include any of the Company's securities in any registration statement prepared in connection with any such Demand Registration.

(b) Effective Registration and Expenses. A registration will not count as a Demand Registration until it has become effective and the period of distribution of the registration contemplated thereby has been completed; provided, however, that if a registration does not become effective solely because of any act or omission on the part of the Purchaser, such registration shall nevertheless count as a Demand Registration. In any registration initiated as a Demand Registration, the Company will pay all Registration Expenses (as hereinafter defined) in connection therewith, whether or not such registration becomes effective.

(c) Priority on Demand Registrations. If the Purchaser so elects, the offering of Registrable Securities pursuant to a Demand Registration shall be in the form of an underwritten offering. In such event, if the managing underwriter or underwriters of such offering advise the Company and the Purchaser in writing that in their opinion the aggregate amount of securities requested to be included in such offering (including those being offered by the Company) is sufficiently large to materially and adversely affect the success or offering price of such offering, the Company will reduce the amount of securities to be offered by it to the extent recommended by the managing underwriter (or if so recommended, withdraw from the offering entirely) and will include in such registration the aggregate amount of securities which in the opinion of such managing underwriter or underwriters can be sold without any such material adverse effect.

(d) Selection of Underwriters. If any Demand Registration is in the form of an underwritten offering, the Purchaser will select and obtain the investment banker or investment bankers and manager or managers of nationally recognized standing that will administer the offering; provided, however, that such investment bankers and managers must be reasonably satisfactory to the Company.

3. Piggy-Back Registrations

If the Company proposes to file a registration statement under the Act with respect to an offering by the Company for its own account and/or for the account of any holders (other than the Purchaser) of any class of security (other than a registration

statement (i) on Form S-4 or S-8 or successor forms thereto, (ii) filed in connection with an exchange offer or an offering of securities solely to the Company's existing stockholders or (iii) any other form or type of registration which does not permit inclusion of Registrable Securities pursuant to applicable laws or "Commission" (as defined below) rules or regulations), then the Company shall in each case give written notice of such proposed filing to the Purchaser at least twenty (20) days before the anticipated filing date, and such notice shall offer (except as otherwise contemplated by the penultimate sentence of this Section) the Purchaser the opportunity to register such number of shares of Registrable Securities as the Purchaser may request. The Company shall use its best efforts to cause the managing underwriter or underwriters of a proposed underwritten offering to permit the Purchaser to include such securities in such offering on the same terms and conditions as any similar securities of the Company included therein. Notwithstanding the foregoing, if the managing underwriter or underwriters of such offering delivers a written opinion to the Purchaser that the inclusion of such Registrable Securities would materially and adversely affect the success or offering price of, or materially increase the consideration (including commission) to be paid to the underwriter in connection with, such offering, then the amount of securities to be offered for the account of the Purchaser shall be reduced to the extent necessary to reduce the total amount of securities to be included in such offering to the amount recommended by such managing underwriter; provided, that if securities similar to those represented by the Registrable Securities are being offered for the account of other persons as well as the Company, such reduction shall not represent a greater fraction of the number of securities intended to be offered by the Purchaser than the fraction of similar reductions imposed on such other persons other than the Company. In connection with a piggy-back registration, the Company will bear all Registration Expenses; provided, that the Company will not have any obligation pursuant to this sentence to persons other than the Purchaser.

4. Holdback Agreement

(a) Restrictions on Public Sale by the Purchaser. To the extent not inconsistent with applicable law, the Purchaser agrees, upon the request of the managing underwriter or underwriters in an underwritten offering, not to effect any public sale, short sale, or loan, grant any option on the purchase, or otherwise dispose, of any securities of the Company of the same class as the securities included in a registration statement filed by the Company, or any securities convertible into or exchangeable or exercisable for such securities (except as part of such registration), during the period beginning twenty (20) days prior to the anticipated effective date of such registration statement (so long as the Company has delivered the notice required by the first sentence of Section 3 hereof and notifies the Purchaser of such anticipated effective date) and continuing until ninety (90) days (or such shorter period as may be applicable to any other holder of such securities) after, the effective date of such registration statement, if and to the extent requested by the managing underwriter or underwriters.

(b) Further Restrictions. Purchaser agrees that if (i) there is material non-public information regarding the Company which the Board of Directors of the Company determines not to be in the Company's best interest to disclose and which the Company is not otherwise required to disclose, or (ii) there is a material business opportunity available to the Company which the Board determines not to be in the Company's best interest to disclose, or (iii) there is a material business opportunity available to the Company and the Board determines that the Company's ability to pursue such opportunity would be materially and adversely affected by a registered public offering of the Company's Securities, then the Company may postpone filing a registration statement requested pursuant to Section 2 for a period not to exceed sixty (60) days, provided that the Company may not postpone its obligations as permitted under this Section 4(b) more than once in any twelve (12) month period.

5. Registration Procedures

Whenever the Purchaser has requested that any Registrable Securities be registered pursuant to Section 2 or 3 of this Agreement, the Company will:

(a) in connection with a request pursuant to Section 2, prepare and file with the Securities and Exchange Commission (the "Commission"), not later than thirty (30) days after receipt of a request to file a registration statement with respect to Registrable Securities, a registration statement on any form for which the Company then qualifies or which counsel for the Company shall deem appropriate for the sale of Registrable Securities in accordance with the intended method or methods of distribution thereof, and use its best efforts to cause such registration statement to become effective as promptly as practicable thereafter; provided, that before filing a registration statement or prospectus or any amendments or supplements thereto, the Company will furnish to one counsel selected by the Purchaser copies of all such documents proposed to be filed;

(b) in connection with a registration pursuant to Section 2, prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection therewith as may be necessary to keep such registration statement effective for a period of not less than six (6) months or such shorter period which will terminate when all Registrable Securities covered by such registration statement have been sold (but not before the expiration of the applicable period referred to in Section 4(3) of the Act and Rule 174 thereunder, if applicable), and comply with the provisions of the Act with respect to the disposition of all securities covered by such registration statement during such period in accordance with the intended method or methods of disposition by the sellers thereof set forth in such registration statement or prospectus to the extent provided in this Section 5;

(c) as soon as reasonably possible, furnish to the Purchaser copies of the registration statement as filed and each amendment and supplement thereto (in each case including all exhibits thereto), as many copies of the prospectus included in such

registration statement and any amendments or supplements thereto as the Purchaser may reasonably request (including each preliminary prospectus) and such other documents as the Purchaser may reasonably request in order to facilitate the disposition of the Registrable Securities owned by the Purchaser;

(d) use its best efforts to register or qualify such Registrable Securities under such other securities or blue sky laws of such jurisdictions in the United States of America as the Purchaser reasonably requests and do any and all other acts and things which may be reasonably necessary or advisable to enable the Purchaser to consummate the disposition in such jurisdictions of the Registrable Securities; provided, that the Company will not be required to (i) qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this paragraph (d), (ii) subject itself to taxation in any such jurisdiction, or (iii) take any action that would subject it to the service of process in suits other than as to matters and transactions relating to the sale of the Registrable Securities or any violation of state securities laws in any jurisdiction where it is not now so subject;

(e) use its best efforts to cause the Registrable Securities covered by such registration statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to enable the Purchaser or the underwriter or underwriters, if any, to consummate the disposition of such Registrable Securities subject to the proviso contained in paragraph (d) above;

(f) notify the Purchaser, at any time when a prospectus relating thereto is required to be delivered under the Act, of the happening of any event as a result of which the prospectus included in such registration statement contains an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading, and the Company will promptly prepare a supplement or amendment to such prospectus so that, as thereafter delivered to the purchasers of such Registrable Securities, such prospectus will not contain an untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading;

(g) notify the Purchaser of any stop order issued or threatened by the Commission and take all reasonable actions required to prevent the entry of such stop order or to remove it if entered;

(h) enter into customary agreements (including an underwriting agreement in customary form) and take such other actions (including obtaining customary opinions of counsel for the Company) as are reasonably required in order to expedite or facilitate the disposition of such Registrable Securities;

(i) make available at all reasonable times and in a reasonable manner for inspection by the Purchaser, any underwriter participating in any disposition pursuant to

such registration statement, and any attorney, accountant or other agent retained by the Purchaser or underwriter (collectively, the "Inspectors"), all financial and other records, pertinent corporate documents and properties of the Company (collectively, the "Records"), and cause the officers, directors and employees of the Company to supply all information reasonably requested by any such Inspector in connection with such registration statement prior to its effectiveness. Records which the Company determines, in good faith, to be confidential and which the Company notifies the Inspectors are confidential shall not be disclosed by the Inspectors unless the release of such Records is ordered pursuant to a subpoena or other order from a court of competent jurisdiction. The Purchaser agrees that it will, upon learning that disclosure of such Records is sought in a court of competent jurisdiction, give notice to the Company and allow the Company, at the Company's expense, to undertake appropriate action to prevent disclosure of the Records deemed confidential by the Company;

(j) use its best efforts to obtain a comfort letter from the Company's independent public accountants in customary form and covering such matters of the type customarily covered by comfort letters with respect to offerings of such type as the Purchaser reasonably requests;

(k) otherwise comply with all applicable rules and regulations of the Commission, and make generally available to its security holders, as soon as reasonably practicable, an earnings statement covering a period of 12 months, beginning within 3 months after the effective date of the registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Act and Rule 158 thereunder;

(l) cause all such Registrable Securities to be listed on each securities exchange or quotation system on which similar securities issued by the Company are then listed; and

(m) cooperate and assist in any filings required to be made with the National Association of Securities Dealers, Inc. (the "NASD") and in the performance of any due diligence investigation by any Inspector (including any "qualified independent underwriter" that is required to be retained in accordance with the rules and regulations of the NASD).

The Company may require the Purchaser to furnish to the Company such information regarding the distribution of such Securities as the Company may from time to time reasonably request in writing.

The Purchaser agrees that, upon receipt of any notice from the Company of the happening of any event of the kind described in Section 5(f) hereof, it will forthwith discontinue disposition of Registrable Securities pursuant to the registration statement covering such Registrable Securities until the Purchaser's receipt of the copies of the supplemented or amended prospectus contemplated by Section 5(f) hereof, or until it is advised in writing (the "Advice") by the Company that the use of the prospectus may be resumed. If so directed by the Company,

the Purchaser will deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in its possession, of the prospectus covering such Registrable Securities current at the time of receipt of such notice. In the event the Company shall give any such notice, the Company shall extend the period during which such registration statement shall be maintained effective pursuant to this Agreement (including the period referred to in Section 5(b)) by the number of days during the period from and including the date of the giving of such notice pursuant to Section 5(f) hereof to and including the date when the Purchaser shall have received the copies of the supplemented or amended prospectus contemplated by Section 5(f) hereof or shall have received the Advice.

6. Registration Expenses

All expenses incident to the Company's performance of or compliance with this Agreement, including without limitation, all registration and filing fees and expenses (including those for filings made with the NASD), fees and expenses of compliance with securities or blue sky laws (including fees and disbursements of counsel in connection with blue sky qualifications of the Registrable Securities), rating agency fees, printing expenses, messenger and delivery expenses, internal expenses (including, without limitation, all salaries and expenses of the Company's officers and employees performing legal or accounting duties), the fees and expenses incurred in connection with the listing of the securities to be registered on each securities exchange and quotation system on which similar securities issued by the Company are then listed, and fees and disbursements of counsel for the Company and its independent certified public accountants (including the expenses of any special audit and "comfort" letters required by or incidental to such performance), securities acts liability insurance (if the Company elects in its discretion to obtain such insurance), the fees and expenses of any special experts retained by the Company in connection with such registration, fees and expenses of other persons retained by the Company, the reasonable fees and expenses of a single counsel for the holders of Registrable Securities incurred in connection with each registration hereunder and any reasonable out-of-pocket expenses of the Purchaser (all such expenses being herein called "Registration Expenses"), will be borne by the Company. The Purchaser shall bear the expense of any broker's commission or underwriter's discount or commission relating to such registration and sale.

7. Indemnification; Contribution

(a) Indemnification by the Company. The Company agrees to indemnify and hold harmless, to the full extent permitted by law (i) the Purchaser, (ii) each person who controls the Purchaser (within the meaning of the Act), (iii) any investment advisor thereof or financial agent or counsel therefor, and (iv) the officers, directors, partners, employees, representatives and/or agents, as applicable, of each person described in the foregoing clauses (i) through (iii), from and against any and all losses, claims, damages, liabilities and expenses caused by any untrue or alleged untrue statement of material fact contained in any registration statement, prospectus or preliminary prospectus (or any amendments or supplements thereto), including any document incorporated by reference therein, or caused by any omission or alleged omission to state therein a material fact

required to be stated therein or necessary to make the statements therein (in case of a prospectus or preliminary prospectus, in light of the circumstances under which they were made) not misleading, except insofar as the same are caused by, contained in, or, with respect to any material omission, omitted from, any information with respect to such indemnified party furnished in writing to the Company by such indemnified party expressly for use therein or caused by such indemnified party's failure to deliver a copy of the registration statement or prospectus or any amendment or supplement thereto as required by the Securities Act or the rules or regulations thereunder (so long as the Company has complied with its obligations under Section 5(c) hereof), or caused by the use of a prospectus or preliminary prospectus or any amendment or supplement thereto by such indemnified party after receipt of notice from the Company that it should no longer be used (so long as the Company has complied with its obligations under Sections 5(c) and (f) hereof). The Company will also indemnify and hold harmless (A) any underwriters of the Registrable Securities, (B) each person who controls such underwriters (within the meaning of the Act), and (C) the officers, directors, partners, employees, representatives and/or agents of each person described in the foregoing clauses (A) and (B), to the same extent as provided above with respect to the indemnification of the Purchaser.

(b) Indemnification by the Purchaser. In connection with any registration statement in which the Purchaser is participating, the Purchaser will furnish to the Company in writing such information with respect to it as the Company reasonably requests for use in connection with any such registration statement or prospectus and agrees to indemnify and hold harmless, to the full extent permitted by law (i) the Company, (ii) each person who controls the Company (within the meaning of the Act), and (iii) the officers, directors, partners, employees, representatives and/or agents of each person described in the foregoing clauses (i) and (ii), from and against any losses, claims, damages, liabilities and expenses resulting from any untrue or alleged untrue statement of a material fact or any omission or alleged omission of a material fact required to be stated in the registration statement, prospectus or preliminary prospectus or any amendment thereof or supplement thereto or necessary to make the statements therein (in the case of a prospectus or preliminary prospectus, in the light of the circumstances under which they were made) not misleading, to the extent, but only to the extent, that such untrue statement or omission is contained in, or with respect to any material omission, omitted from, any information with respect to the Purchaser so furnished in writing by the Purchaser or any agent of the Purchaser expressly for use therein. The Purchaser will also indemnify and hold harmless (A) any underwriters of the Registrable Securities, (B) each person who controls such underwriters (within the meaning of the Act), (C) each other holder of the Company's securities selling securities pursuant to such registration statement (provided that such holder has agreed in writing to indemnify the Purchaser to the same extent) and (D) the officers, directors, partners, employees, representatives and/or agents of each person described in the foregoing clauses (A) through (C), to the same extent as provided above with respect to the indemnification of the Company. In no event shall the liability of the Purchaser be greater in amount than the dollar amount of

the proceeds received by the Purchaser upon the sales of Registrable Securities giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. Any person entitled to indemnification hereunder agrees to give prompt written notice to the indemnifying party after the receipt by such person of any written notice of the commencement of any action, suit, proceeding or investigation or threat thereof made in writing for which such person will claim indemnification or contribution pursuant to this Agreement (but the failure to give such notice will not affect the right to indemnification or contribution hereunder unless, and only to the extent that, the indemnifying party is materially prejudiced by such failure). The indemnifying party shall not have the right to assume the defense of such action or proceeding on behalf of such indemnified party, it being understood, however, that the indemnifying parties 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 fees and expenses of more than one separate firm of attorneys (in addition to any local counsel) in any one jurisdiction at any time for all such indemnified parties, unless in the reasonable judgment of an indemnified party a conflict of interest may exist between such indemnified party and any other of such indemnified parties with respect to such claim, in which event the indemnifying party shall be obligated to pay the fees and expenses of such additional counsel or counsels. Any indemnified party shall also have the right to employ separate counsel in any such action and participate in the defense thereof at such indemnified party's expense. The indemnifying party will not be subject to any liability for any settlements made without its consent, which consent shall not be unreasonably withheld. No indemnifying party shall, without the consent of such indemnified party, effect any settlement of any pending or threatened proceeding in respect of which such indemnified party is or could have been a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such proceeding.

(d) Contribution. If for any reason the indemnity provided for in this Section 7 is unavailable to, or is insufficient to hold harmless, an indemnified party, then the indemnifying party, in lieu of indemnifying such party, shall contribute to the amount paid or payable by the indemnified party as a result of such losses, claims, damages, liabilities or expenses in such proportion as is appropriate to reflect the relative fault of the indemnifying party, on the one hand, and the indemnified party, on the other hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative fault of the indemnifying party, on the one hand, and the indemnified party, on the other hand, shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact, has been made by, or relates to information supplied by, the indemnifying party or the indemnified party; and the parties'

relative intent, knowledge, access to information and opportunity to correct or prevent such action. The amount paid or payable by an indemnified party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 7(c), any legal or other fees or expenses reasonably incurred by such indemnified party in connection with any investigation or proceeding.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 7(d) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

8. Participation in Underwritten Registrations

No person may participate in any underwritten registration hereunder unless such person (a) agrees to sell such person's securities on the basis provided in any underwriting agreements approved by the persons entitled hereunder to approve such arrangements and (b) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements and other documents reasonably required under the terms of such underwriting arrangements.

9. Rule 144 Reporting

With a view to making available the benefits of certain rules and regulations of the Commission which may at any time permit the sale of the Registrable Securities to the public without registration, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144 under the Act;

(b) use its best efforts to file with the Commission in a timely manner all reports and other documents required of the Company under the Act and the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and

(c) furnish to the Purchaser forthwith upon request a written statement by the Company as to its compliance with the reporting requirements of such Rule 144 and of the Act and the Exchange Act, 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 the Purchaser may reasonably request in availing itself of any rule or regulation of the Commission allowing the Purchaser to sell any Registrable Securities without registration.

10. Miscellaneous

(a) Governing Law. This Agreement shall be governed in all respects by the laws of the State of Delaware, without reference to its conflicts of law principles.

(b) No Inconsistent Agreements. The Company represents and warrants that it has not previously entered into, and covenants that it will not hereafter enter into any agreement with respect to its securities which is inconsistent with the rights granted to the Purchaser in this Agreement.

(c) Successors and Assigns. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto. No party may assign any of such party's rights, interests or obligations hereunder without the prior written consent of the other parties hereto; provided, however, that the Purchaser may assign any or all of its rights, interests and obligations hereunder (i) in connection with the concurrent sale or transfer of Registrable Securities, or (ii) to a successor entity to the Purchaser pursuant to a reorganization of the Purchaser, provided, in case of each assignment pursuant to clause (i) or (ii) above, that (A) the Company receives notice of such assignment and (B) this Agreement may only be assigned if, prior to such assignment, such assignee shall assume all of the applicable assignor's obligations hereunder. Purchaser and the Company agree that, in the case of any assignment by Purchaser referred to above made in accordance with this Section 9(c), all references to "Purchaser" in this Agreement shall be deemed to refer to each holder of Registrable Securities and Restricted Securities (including Purchaser to the extent Purchaser continues to hold any shares of Registrable Securities or Restricted Securities) and in such event any and all rights which Purchaser may be entitled to exercise under this Agreement shall be deemed to be exercisable by holders of more than 50% of all shares of Registrable Securities outstanding at the time of any such exercise.

(d) Entire Agreement. This Agreement, the Purchase Agreement and the Technology Transfer Agreement dated as of the date hereof between the parties hereto constitute the full and complete agreement between the parties hereto with respect to the subject matter hereof and thereof and supersedes all previous oral and written and all contemporaneous oral negotiations, commitments, writings and understandings.

(e) Amendments and Waivers. Except as otherwise provided herein, the provisions of this Agreement may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given unless pursuant to a written agreement between the Company and the holders of more than 50% of the Registrable Securities.

(f) Notices, Etc. All notices, requests, demands, consents and other communications required or permitted to be given or made hereunder shall be in writing and shall be deemed to have been duly given or made if delivered personally, or sent by a

nationally recognized overnight delivery service or by telecopy or similar facsimile transmission, or mailed by prepaid registered or certified mail, return receipt requested, to the other party at the respective address set forth below (or to such other address as a party shall designate for itself by written notice given or made in accordance herewith):

(i) if to the Purchaser, at:

MedImmune, Inc.
35 W. Watkins Mill Road
Gaithersburg, MD 20878
Telecopy: (301) 527-4200
Attention: David M. Mott

(ii) if to the Company, at:

SIGA Pharmaceuticals, Inc.
666 Third Avenue, 30th Floor
New York, NY 10017
Telecopy: (212) 986-2399
Attention: David H. de Weese

Any such notice, request, demand, consent or other communication shall be deemed delivered and given or made on the fifth business day after the date of mailing, if mailed by registered or certified mail, or on the second business day after the date of transmittal, if sent by overnight delivery service or by telecopy or similar facsimile transmission (provided such telecopy or transmission is followed promptly by the mailing of the original of such notice), or on the date of delivery, if delivered personally.

(g) Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to the Purchaser, upon any breach or default of the Company under this Agreement, shall impair any such right, power or remedy of the Purchaser nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring.

(h) Remedies. Each party, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Agreement or other equitable remedies. The parties agree that monetary damages would not be adequate compensation for any loss incurred by reason of breach by it of the provisions of this Agreement and hereby agree to waive (to the extent permitted by law) the defense in any action for specific performance that a remedy of law would be adequate.

(i) Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

(j) Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision, it being intended that all of the rights and privileges of the Purchaser shall be enforceable to the fullest extent permitted by law.

(k) Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(l) Attorneys' Fees. In any action or proceeding brought to enforce any provision of this Agreement, or where any provision hereof is validly asserted as a defense, the successful party shall be entitled to recover reasonable attorneys' fees in addition to any other available remedy. [Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

MEDIMMUNE, INC.

By: /s/ David Mott

Name: David Mott
Title: President

SIGA PHARMACEUTICALS, INC.

By: /s/ David de Weese

Name: David de Weese
Title: Chairman and CEO

RESEARCH COLLABORATION AND LICENSE AGREEMENT

This Agreement, effective this 6th day of February ("Effective Date") by and between The Washington University, a corporation established by special act of the Missouri General Assembly approved February 22, 1853 and acts amendatory thereto, having its principal office at One Brookings Drive, Saint Louis, Missouri 63130, through its School of Medicine, 660 S. Euclid Avenue, Saint Louis, Missouri 63110 ("WUSTL") and SIGA Pharmaceuticals, Inc., a corporation duly organized and existing under the laws of the State of Delaware and having its principal office at 666 Third Avenue, 30th Floor, New York, New York 10017 ("SIGA").

WHEREAS, WUSTL, through its research funded in part by WUSTL, and others, has developed intellectual property comprising patent rights, copyrights, know-how and technical data;

WHEREAS, WUSTL is the owner of such intellectual property rights which can be applied to the Field of Use, defined below, and has the right to grant licenses to such intellectual property rights;

WHEREAS, WUSTL desires to have such intellectual property rights commercialized and used in the public interest so that the expected benefits of the resulting products will be available to the public as soon as commercially reasonable;

WHEREAS, SIGA has represented to WUSTL that it has the necessary product development capabilities and resources to reasonably attempt to introduce commercial products based upon such intellectual property rights;

WHEREAS, based upon these representations by SIGA, WUSTL has decided that it will grant a world-wide, exclusive, royalty-bearing license to SIGA to commercialize the aforesaid intellectual property and SIGA agrees to license this package of intellectual property and pay a sales royalty on the terms set forth herein;

WHEREAS, the research program contemplated by this Agreement is of mutual interest and benefit to WUSTL and SIGA, will further the instructional and research objectives of WUSTL in a manner consistent with its non-profit, tax-exempt status and academic missions, and may produce benefits for both WUSTL and SIGA;

WHEREAS, this Agreement supersedes any Letter of Intent or proposals circulated between SIGA and WUSTL;

NOW THEREFORE, the parties agree to the statements and representations made above and to the following terms and conditions.

ARTICLE 1 - Definitions

For the purpose of this Agreement, the words and phrases set forth in this Article will have the following meaning:

- 1.1 Agreement: This Research Collaboration and License Agreement.
- 1.2 Background Technology: The patents, patent applications, tangible materials and proprietary compounds of WUSTL developed in the laboratory or under the supervision of Scott Hultgren, Ph.D. prior to the Effective Date of this Agreement and listed in Appendix A.
- 1.3 Calendar Half: Each six (6) month period, or any portion thereof, beginning on January 1 and July 1, after the Effective Date.
- 1.4 Combination Product: Any product that is comprised in part of a Licensed Product and in part of one or more other biologically active diagnostic, preventive or therapeutic agents which are not themselves Products (the "Other Agents"). "Other Agents" excludes diluents and vehicles of Products.
- 1.5 Contract Year: The incremental period of time that this Agreement, or any portion thereof, will be in force as measured from the first day of January through the thirty-first day of December of the same calendar year, provided that the first Contract Year will commence upon the Effective Date and conclude December 31, 1998.
- 1.6 Field of Use: Anti-microbial compounds and compositions for all human and veterinary diagnostic and therapeutic uses.
- 1.7 First Commercial Sale: The initial transfer of Licensed Products or Combination Products for compensation by SIGA to an unrelated third party for the purpose of commercial use and not for research, development or testing purposes. Transfer of the Licensed Products for beta and field testing and sampling will not constitute the First Commercial Sale. "First Commercial Sale" does not include distribution of free promotional samples of any Licensed Product or Combination Product by SIGA or any of its affiliates or sublicensees in amounts determined to be commercially reasonable by SIGA in the exercise of its reasonable discretion.
- 1.8 Inventions or Improvements: Any and all discoveries, methods, processes, compositions of matter and uses, whether or not patentable, arising from

research activities supported by SIGA under this Agreement.

1.9 Licensed Products: Any composition of matter, product, article of manufacture, apparatus, kit or component part thereof, or any similar item or process, procedure or method that, when made, used or sold, would (i) be covered by a pending claim contained in a patent application included in the Patent Rights; (ii) infringe or contribute to the infringement of a valid

and unexpired claim of a patent included in the Patent Rights; (iii) contain Tangible Personal Property; and/or (iv) be covered by an unexpired claim of any patent or patent application included in the Background Technology, or otherwise incorporate, use or comprise Background Technology.

1.10 Net Sales:

(A) with respect to Licensed Products, the invoice price charged by SIGA to its retail customers for the sale, lease or barter of Licensed Products, less:

(1) customary trade, quantity and cash discounts actually allowed and taken; and,

(2) credits actually given for rejected or returned Licensed Products; and

(3) freight and insurance costs, if separately itemized on the invoice paid by the customer; and,

(4) value-added, sales, use or turnover taxes, excise taxes, tariffs and customs duties included in the invoiced amount; and .

(B) with respect to Combination Products, the actual invoice price charged by SIGA, less the deductions set forth in subsections (A)(1) - (4) above, multiplied by a fraction having (i) a numerator of the gross sales price of the Licensed Product(s) included in such Combination Product as if sold separately or, if such sales price is not available, the fair market value of such Licensed Product(s), and (ii) a denominator of the gross sales price of such Combination Product, or if such sales price is not available, the sum of the fair market values of the Other Agents and the Licensed Product(s) contained in such Combination Product. The "fair market value" for any Licensed Product or Other Agent shall be determined for a quantity comparable to that included in the Combination Product and of substantially comparable class, purity and potency, and shall be mutually agreed to by SIGA and WUSTL. When no fair market value is available, the fraction set forth above shall be changed to a fraction having (x) a numerator of the cost to SIGA or its affiliates or sublicensees of the License Product(s) included in such Combination Product, and (y) a denominator of the sum of such cost plus the cost to SIGA, or its affiliates or sublicensees of the Other Agents contained in such Combination Product. "Cost" as used above means the actual cost paid by SIGA and/or its affiliates or sublicensees in an arm's length transaction, if purchased, or if not purchased but actually manufactured by any such entity, the sum of the direct manufacturing cost as determined by such entity's internal cost accounting system consistently applied.

1.11 Patent Rights:

(A) the patents, patent applications and invention disclosures listed and more fully described in Appendix B attached hereto and made a part hereof, and the United States and foreign patents

issuing from said pending patent applications and any continuations, continuations-in-part, divisions, reexaminations, reissues, or extensions of any of the foregoing; and

(B) any patents and/or patent applications covering any Invention or Improvement, and the United States and foreign patents issuing from any such patent applications and any continuations, continuations-in-part, divisions, reexaminations, reissues, or extensions of any of the foregoing.

1.12 Project: Work funded by SIGA under annual research grants in accordance with the research plan, for an initial term of three years, extendable as provided below. Such work is further described in the attached Statement of Work (Appendix C).

1.13 Project Participants: Dr. Scott Hultgren, as Principal Investigator, and any WUSTL employees and students working under his direction, and a Visiting Scientist(s), working under the Principal Investigator's direction, in his laboratory, on the Project, during the Term of this Agreement, with funding provided by SIGA, as provided in this Agreement.

1.14 SIGA: SIGA Pharmaceuticals and its Subsidiaries.

1.15 Sublicensing Revenue: All gross revenues received by SIGA from sublicensees for the manufacture, use or sale of Licensed Products anywhere in the world during the Term of this Agreement, same to include by way of example and not limitation: fees, licensing milestones, and cash equivalent value for securities, equipment or other property received by SIGA as sublicensing consideration from any sublicensee.

1.16 Subsidiaries: A corporation or other business entity controlled by SIGA. For this purpose, control of a corporation or other business entity means direct or indirect beneficial ownership of fifty-one percent (51%) or more of the voting interest in, or a fifty-one percent (51%) or greater interest in the equity of, such corporation or other business entity.

1.17 Tangible Personal Property: All physical embodiments of Patent Rights and Technical Information, and all progeny and derivative works thereof.

1.18 Technical Information: All ideas, know-how, trade secrets, inventions, discoveries, technical data, information, methods, materials, protocols, formulations, arts, procedures or processes, whether or not patentable, owned by or subject to the rights of WUSTL which are not in the public domain and which are known by WUSTL and which WUSTL is free to disclose to SIGA, and which are determined by SIGA to be useful in the practice of the Patent Rights.

1.19 Term: The Term of this Agreement will be from the Effective Date until the expiration of the last of the patents included in the Patent Rights to expire, unless terminated prior thereto by one of the parties in accordance with the provisions of this Agreement.

1.20 Visiting Scientist(s): The Visiting Scientist for the first full Contract Half Year will be Hal Jones; the identity of the Visiting Scientist(s) for Contract Years two and three (and any subsequent years) will be determined by the mutual agreement of the parties. The Visiting Scientist shall not be deemed an employee of WUSTL for purposes of this Agreement.

ARTICLE 2 - LICENSE GRANT

2.1 Grant of License. WUSTL hereby grants to SIGA a royalty-bearing, exclusive, nontransferable license to make, have made, use, have used, sell, have sold, distribute, import, export and lease License Products under Background Technology, Patent Rights, Tangible Personal Property and Technical Information in the Field of Use, throughout the world during the Term, unless sooner terminated as hereinafter provided. SIGA will have the right to sublicense under the license granted herein, subject to approval by WUSTL of the sublicensee, and such approval will not be unreasonably withheld or delayed. No other license is hereby granted or implied.

2.2 WUSTL agrees that any Invention(s) or Improvement(s) shall be disclosed promptly to SIGA. Any such Invention(s) or Improvement(s) shall automatically be added to SIGA's existing license grant under Section 2.1 hereof without the payment of any additional consideration or any further action by either of the parties hereto.

2.3 If SIGA (a) chooses by written notice not to practice any Patent Rights licensed to it hereunder, or (b) notifies WUSTL in writing of its intent not to add a particular new Invention or Improvement to the existing license, WUSTL shall be free to license the same to a third party or parties of its choosing. SIGA agrees to give WUSTL written notice of any decision (i) not to practice Patent Rights as promptly as practicable or (ii) not to add a new Invention or Improvement to the existing license within one hundred and fifty (150) days after such Invention or Improvement is disclosed to SIGA .

2.4 WUSTL agrees to provide SIGA with Technical Information developed in the Project from time to time during the term of this Agreement. SIGA shall be entitled to use (and shall be entitled to allow its affiliates and sublicensees to use) such Technical Information internally in support of development, discovery, manufacturing and marketing efforts for sales of Licensed Products and otherwise as contemplated by this Agreement. The provision of such Technical Information by WUSTL to SIGA shall be subject to the confidentiality requirements contained in Article 7.

2.5 Reservation of Rights by WUSTL. Notwithstanding WUSTL's grant of an exclusive license pursuant to Section 2.1, WUSTL reserves the right to use the Patent Rights, Technical Information, Background Technology and Tangible Personal Property for internal, non-commercial research and educational purposes only. All rights not specifically granted to SIGA pursuant to this Agreement shall be retained by WUSTL.

ARTICLE 3 - DILIGENCE

3.1 Reasonable Efforts. SIGA will use commercially reasonable efforts to develop, promote demand for and sell Licensed Products. SIGA will, within one hundred and twenty (120) days of the Effective Date, use reasonable efforts to determine whether SIGA will fund a laboratory to provide chemical synthesis capability to support the development of Licensed Products concurrently with its research funding to WUSTL during the Project.

3.2 Product Development Plan. Within one hundred and twenty (120) days after identification of a target molecule as a Licensed Product, SIGA will submit a Product Development Plan ("Plan") to WUSTL for each such Licensed Product. The Plan will set forth SIGA's good faith estimate of the primary tasks and schedule for the development of specific Licensed Products by SIGA and the estimate of production and sales of each Licensed Product for the next five (5) Contract Years. The Plan and any updates thereto will contain the following minimum data:

- (A) Definition/specification of each Licensed Product planned for development;
- (B) Tasks to be performed by SIGA, its subcontractors, WUSTL and others to develop each Licensed Product including estimated time schedules for prototype development, subsystems development, beta testing, clinical trials, product development, market testing, as relevant;
- (C) Tasks to be performed to achieve regulatory approval or other certification of each Licensed Product including estimated time schedule;
- (D) Good faith estimate of First Commercial Sale of each Licensed Products by country in North America, Europe, and Asia/Pacific Basin;
- (F) Good faith estimate of sales and income by Calendar Half for the following five (5) Contract Years.

3.3 Plan Updates. SIGA will update and report progress against the Plan in writing to WUSTL thirty (30) days after the close of each Calendar Half to be submitted concurrently with Calendar Half reports and Product Development Plan updates. SIGA will notify WUSTL of any changes in the Plan within a reasonable time period after the occurrence of or recognition of the need for such changes. Upon request by WUSTL, SIGA will consult with WUSTL concerning tasks, schedules and progress.

3.4 Diligence Prior to First Commercial Sale. Prior to the First Commercial Sale of each Licensed Product, SIGA will be considered to be diligent with regard to development of such Licensed Product so long as SIGA updates and reports progress against the Plan and so long as SIGA:

(A) Continues to provide the necessary financial and other resources which are required to maintain progress in accomplishing the Plan, as it relates to each Licensed Product, including paying required maintenance fees;

(B) Conducts and/or enables others to conduct the activities required to maintain scheduled progress in accomplishing the Plan, as it relates to each Licensed Product; and,

(C) Provides research funding to WUSTL during the first three Contract Years as provided, inter alia, in Section 4.2, below.

3.5 Lack of Diligence. Should WUSTL reasonably determine in good faith that SIGA is not diligent in development or sales of a Licensed Product based upon the criteria set forth in Sections 3.1, 3.3, or 3.4 as applicable, for any reason other than

(A) the withholding by a regulatory agency of marketing approval despite SIGA's diligent effort to obtain such approval;

(B) unanticipated technical or scientific problems which have been previously and promptly reported to WUSTL; or

(C) other causes beyond the reasonable control of SIGA which have been previously and promptly reported to WUSTL, including without limitation the failure of WUSTL to perform under the Plan; then

WUSTL may give notice to SIGA stating the basis for its conclusions and, upon request of WUSTL, SIGA will show cause why the license granted for such Licensed Product should not be terminated with respect to that Licensed Product. If within ninety (90) days after SIGA's receipt of said notice, the parties have not resolved the matter through good faith negotiations in a mutually acceptable manner, the parties shall submit the matter to arbitration in accordance with Article 12.

3.6 Grant of Option to Applications and Markets. WUSTL may present proposals to SIGA for development of products for applications and/or markets that are not being actively pursued by SIGA at the time of presentation. SIGA will have 90 days after submission of such a proposal to declare interest in writing in the proposal and in developing a competitive plan to address the application and/or market. SIGA will have an additional 120 days from the declaration of interest to provide a competitive plan to WUSTL. If SIGA fails to declare interest, or fails to provide a competitive plan after a declaration of interest, then in either case this option will expire and WUSTL will have the right to license others in that specific field of use.

ARTICLE 4 - PAYMENTS

4.1 License Issue Fee. Upon the Effective Date of this Agreement SIGA will pay to WUSTL

a non-refundable, noncreditable License Issue Fee of \$ *.

4.2 Research Funding. Subject to Section 5.3, for the first two full Contract Years that this Agreement is in effect, SIGA will provide annual research grants in accordance with the attached Research Plan (Appendix D), incorporated by reference herein, said funding to include the full salary and benefits for a Visiting Scientist(s) to work in the laboratory of the Principal Investigator, under his supervision, on the Project, in the Field of Use. No less than ninety (90) days before the end of the second Contract Year both parties will evaluate the scope of work for the third Contract Year and will negotiate a new research budget for that year, said budget will not be less than \$ *.

4.2.1 In addition to the funding that SIGA will provide in accordance with Appendix D, SIGA will purchase up to \$ * of laboratory equipment that will be loaned to WUSTL for the duration of the research period. At the end of the research period, or if the Agreement is terminated prior thereto, SIGA will give the equipment to WUSTL, at no cost to WUSTL. The Principal Investigator will identify equipment to be purchased and provided and SIGA will buy the equipment in a timely manner and also deliver in a timely manner the equipment to WUSTL.

4.3 Annual License Maintenance Payments. SIGA will pay WUSTL \$ * in Contract Year Two, \$ * in Contract Year Three and \$ * per year each year of the Term after research funding has terminated until the First Commercial Sale has taken place, said payment due and payable by January 15 of each Contract Year to which it applies. Such payment shall be pro rated for the year in which the First Commercial Sale takes place and any balance due SIGA shall be applied Earned Royalties (as defined below).

4.4.1 Performance Milestone Payments. Subject to Section 5.3, SIGA will pay the following milestone payments with respect to the first discrete molecule which is a Licensed Product under the terms of this Agreement according to the following schedule:

- (A) Commencement of a formal preclinical development program: \$ *;
- (B) Submission of first investigative new drug (IND) application to the U.S. Food and Drug Administration (the "FDA"): \$ *;
- (C) Completion of first Phase I trials under the IND: \$ *;
- (D) Commencement of first Phase III trials under the IND: \$ *; and
- (E) Obtaining new drug approval (NDA) from the FDA: \$ *.

For any additional discrete molecules which are Licensed Products under the terms of this

* Confidential information is omitted and filed separately with the SEC.

Agreement, SIGA will pay milestone payments according to the above schedule and such milestone payments will be prorated (except for the NDA milestone payment) thus: *% second, *% third, *% fourth, *% fifth, *% sixth, and *% for each subsequent milestone payment. The NDA milestone is \$ * for each occurrence with no proration.

4.4.2 Diligence Milestone Payments. Subject to Section 5.3, and only in the event that no milestone payment has been, or has been required to be, made by SIGA pursuant to Section 4.4.1, SIGA will pay the following milestone payments, according to the following schedule, to avoid termination of the agreement:

- (A) Contract Year Four, or the first year following termination of research funding: Milestone payment of \$ *;
- (B) Contract Year Five or the second year following termination of research funding: Milestone payment of \$ *;
- (C) Contract Year Six or the third year following termination of research funding: Milestone payment of \$ *;
- (D) Contract Year Seven or the fourth year following termination of research funding: Milestone payment of \$ *;
- (E) Contract Year Nine or the sixth year following termination of research funding: Milestone payment of \$ *.

4.4.3 The milestone payments made by SIGA under Sections 4.4.1 or 4.4.2 are *% cumulatively creditable against Earned Royalties (as defined below), with such credit limited to *% of Earned Royalties for any given Contract Year, with credits actually taken deducted from the accumulated balance of creditable milestone payments.

4.5 Milestone payments will be due within thirty (30) calendar days following the Calendar Half commencing immediately after occurrence of the milestone event applicable to each.

4.6 Earned Royalties. In consideration for the license grants of Article 2, SIGA will pay to WUSTL, an earned royalty ("Earned Royalty") of

* % of the Net Sales of each Licensed Product or Combination Product in each country where the Licensed Product or Combination Product, when made, used, or sold is covered by a patent or patent application in Background Technology or Patent Rights. This provision expires on a country by country basis upon the expiration of any such patents in that country; and

* Confidential information is omitted and filed separately with the SEC.

*% of the Sublicensing Revenue.

For the purpose of this Agreement, the date of sale will be the date SIGA takes revenue credit in its sales accounting records or upon actual receipt of the proceeds of said sale, lease or barter, whichever is earlier.

4.6.1 In the event that SIGA enters into a license agreement with any third party to avoid or settle a claim of infringement of any intellectual property right made by such third party due to SIGA's use of Background Technology, Patent Rights, Technical Information or Tangible Personal Property, SIGA may offset *% of any royalty payment made in accordance with any such license agreement against the Earned Royalties owed WUSTL under 4.6 of this Agreement, provided, however, that in no event shall the Earned Royalties otherwise due to WUSTL be reduced by more than *% of the Earned Royalties owed to WUSTL in any given Calendar Half as a result of the application of this Section 4.6.1. If SIGA settles any such claim of infringement by making a cash payment to a third party, provided that SIGA receives the prior approval of WUSTL, which shall not be unreasonably withheld or delayed, then SIGA may reduce Earned Royalties by *% until all of such payment is recovered.

4.7 Minimum Annual Royalties. Minimum annual Earned Royalties ("Annual Minimum Royalties") will be \$ * per Contract Year commencing with the First Commercial Sale. The non-refundable Annual Minimum Royalties payable to WUSTL by SIGA hereunder are fully creditable against Earned Royalties. In the event that Earned Royalties for any Contract Year are less than the Annual Minimum Royalties specified herein, SIGA will pay the difference between the Annual Minimum Royalties required and actual Earned Royalties with its final royalty payment for the respective Contract Year. Annual Minimum Royalties are not cumulative and any credit for Annual Minimum Royalties may not be carried forward to future Contract Years.

4.8 Payment. Annual Minimum Royalties and Earned Royalties will be payable for the full term of the license grant in United States Dollars by electronic transfer to a bank account designated by WUSTL. The rate of exchange will be that in effect at the Chase Manhattan Bank on the last business day of each Calendar Half such payments are due.

4.9 Calendar Half Payments. Earned Royalties will be accumulated and reported on a Calendar Half basis. Payment will be made thirty (30) days following the close of such Calendar Half periods with Annual Minimum Royalties applied and paid with the final Calendar Half Earned Royalty payment for that Contract Year. Unless otherwise specified in this Agreement, SIGA's payment for any other charges due WUSTL hereunder will be made within thirty (30) days following SIGA's receipt of WUSTL's invoice for same.

4.10 Patent Expense. SIGA will reimburse up to \$* of any as-yet unreimbursed WUSTL Background Technology and Patent Rights patent application preparation and prosecution expense and issue and maintenance fee costs incurred prior to the date of this Agreement.

4.11 Late Payments. Interest at prime (as published by Chase Bank) plus 2% will accrue on the outstanding balance of any payment under this Article IV for the period that payment is due until the time payment is actually received. Such interest will be calculated by the actual number of days elapsed based on a 365 day year.

ARTICLE 5 - Research Work

5.1 The work to be performed by the Project Participants will be carried out in accordance with the Statement of Work attached hereto. WUSTL and Project Participants will use reasonable efforts to perform the Project work substantially in accordance with the terms and conditions of this Agreement. Anything in this Agreement to the contrary notwithstanding, WUSTL and SIGA may at any time amend the Statement of Work by mutual written agreement.

5.2 To optimize the mutual benefit and collaboration intended by this Agreement, the parties desire that there be mutually productive and continuing interchange between the Project Participants and SIGA scientists. SIGA has named Dennis E. Hruby, Ph.D. as Research and Development Contact who will be responsible for the conduct of SIGA research and development activities, coordination of reports and information exchange and early identification of intellectual property of commercial interest to SIGA.

5.3 During the term of the Project, Dr. Scott Hultgren, the Principal Investigator, will not collaborate with any other commercial entity in any area related to the Background Technology, Patent Rights or work funded by SIGA. In the event Dr. Hultgren is unavailable or unable to continue the Project at WUSTL, for any reason, SIGA will have the option to terminate the Project. If SIGA exercises its option to terminate the Project pursuant to this Section 5.3, then SIGA shall only be obligated to make payments to WUSTL under Sections 4.3, 4.6 and Article 10 shall not be obligated to make any other payments to WUSTL under this Agreement; provided, however, that if SIGA is developing a Licensed Product, then SIGA shall be obligated to make payments to WUSTL under Section 4.4.1. Termination of the Project will not terminate this Agreement or any rights granted hereunder to SIGA.

5.4 WUSTL and Project Participants will make reasonable efforts to perform the Project, but make no assurances that the effort will be a complete success.

ARTICLE 6 - TECHNICAL REPORTS AND CONFERENCES

6.1 To keep SIGA informed of the progress of the Project, the Principal Investigator agrees to make informal verbal reports once a month, provide quarterly written reports to SIGA within fifteen (15) days of the end of each quarter, detailed written reports annually, within thirty (30) days of the end of each Contract Year, and a final written report within sixty (60) days of the end of the Project. In addition, the Principal Investigator agrees to meet with SIGA Research and Development Contact upon reasonable request at WUSTL's facilities to discuss the progress of the Project work. SIGA will be responsible for all expenses of SIGA personnel relating to these

conferences. The Principal Investigator may travel to SIGA facilities or facilities of a third party academic research lab retained and supported by SIGA to provide chemical synthesis expertise, on timely and reasonable request of SIGA, at SIGA's expense, in a manner not inconsistent with WU faculty policies including those on tenure, academic freedom, responsibility, and consulting privileges.

6.2 SIGA's Research and Development Contact will keep the Principal Investigator informed of all collaborative activities conducted by SIGA in support of the Project, in particular, SIGA's test results of all Tangible Personal Property provided to SIGA by WUSTL, the Principal Investigator, or the other Project Participants during quarterly research meetings and in writing following the end of each Calendar Half.

ARTICLE 7 - CONFIDENTIALITY

7.1 General. All proprietary information owned by SIGA and provided to WUSTL, and all proprietary information owned by WUSTL and provided to SIGA, under this Agreement and marked "Confidential" will be deemed "Confidential Information". Each party agrees to mark only such proprietary information as "Confidential" which such party believes in good faith to be confidential.

(A) Both parties agree to protect and keep secret Confidential Information until the termination of this Agreement or ten years from the Effective Date of this Agreement, whichever is later. SIGA may disclose Confidential Information only to third parties in confidence as necessary for making, having made, using, having used, selling, having sold, distributing, importing, exporting and leasing Licensed Products. Both parties agree not to use any Confidential Information for any purpose other than for the purpose of this Agreement.

(B) WUSTL will instruct its faculty and each non-faculty status individual engaged in performance under this Agreement that prior to receipt of any SIGA Confidential Information they may be required to execute a personal confidentiality agreement with SIGA, obligating such individual to maintain SIGA Confidential Information in confidence and not use such SIGA Confidential Information for any purpose other than in accordance with the terms and conditions of this Agreement. WUSTL will not be party to any such confidentiality agreement, nor will WUSTL have any obligation for the enforcement of any such agreement on behalf of SIGA.

7.2.1 Exceptions. Notwithstanding the foregoing, the confidentiality obligations herein will not apply to any Confidential Information which:

(A) Is or becomes generally available to the public through no fault of SIGA or its employees or agents (including, but not limited to, publication in trade or academic journals, or presentation at a trade or academic seminar, meeting, or similar events open to the general academic or trade community);

(B) Is published or disclosed by WUSTL, its faculty, employees, or agents to the general public, in accordance with Article 14 if applicable (including, but not limited to, publication in trade or academic journals, or presentation at a trade or academic seminar, meeting, or similar events open to the general academic or trade community);

(C) Is disclosed to SIGA by a third party having the lawful right to disclose same, without obligation of confidentiality to WUSTL, or its consultants or agents;

(D) Is disclosed by SIGA to a government agency to comply with statutory requirements for market approval, clinical trials, certification, manufacture and/or distribution of the Licensed Products, for which SIGA is unable to lawfully secure confidentiality;

(E) Is approved for release by the party owning such Confidential Information, and then only to the extent such written approval is granted by such party; or

(F) Is disclosed pursuant to an order of a court of competent jurisdiction.

7.2.2 Material Transfer Agreement. It will not be a breach of this Agreement for either party to transfer any Confidential Information to a third party for such third party's internal research use only pursuant to the terms of the jointly approved material transfer agreement attached hereto as Appendix E. There will be no deviation from the terms of this material transfer agreement without written agreement by both parties in each instance in which a deviation is sought. Each party will inform the other party of all material transfer agreements it enters into with third parties by providing the other party of a copy of the fully executed material transfer agreement within thirty (30) days of final execution thereof.

7.3 Confidentiality of Agreement. Each party further agrees that the terms and conditions of this Agreement will be treated as Confidential Information except as required by or for applicable disclosure laws, financing sources, enforcement of the Agreement, mergers and acquisitions, or as otherwise mutually agreed by the parties, such agreement will not be unreasonably delayed or withheld.

ARTICLE 8 - Representations and Warranties

8.1 General. WUSTL warrants to its best knowledge and belief on the Effective Date that:

(A) It is the owner of intellectual property licensed and the Tangible Personal Property; and

(B) As of the Effective Date of this Agreement, the Background Technology and the Patent Rights are free of any liens, encumbrances, restrictions and other legal or equitable claims against WUSTL, except as noted in Section 8.3, below.

8.2 Authority. Each party represents and warrants that it has the right and authority to enter

into this Agreement.

8.3 Conflicts. Each party represents and warrants that the making of this Agreement does not violate any separate agreement it has with any other person or entity. The parties acknowledge that the U.S. Government may have rights to inventions of Background Technology and Patent Rights by operation of law.

8.4 Exceptions. Notwithstanding any provisions of this Agreement, the Parties do not:

(A) Warrant or represent that anything made, used, sold or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of any patents or other proprietary rights of third parties, nor warrants the validity of the scope of the patents included in the Patent Rights;

(B) Grant rights to WUSTL to use the name of SIGA or any of its employees or subcontractors in advertising, publicity or otherwise without the prior written approval of SIGA, which will not be unreasonably withheld; or

(C) Grant rights to SIGA to use the name of WUSTL or its employees in advertising, publicity or otherwise without the prior written approval of WUSTL, which will not be unreasonably withheld. It will not be unreasonable for WUSTL to withhold such consent if, in WUSTL's opinion, such use can be construed as any form of commercial endorsement.

8.5 Disclaimer. WUSTL MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS OF LICENSED PRODUCTS FOR A PARTICULAR PURPOSE.

8.6 No Recourse. Neither party will have any recourse against the other for any loss, liability, damage, or costs which may be suffered or incurred by utilizing any of the rights or licenses granted by this Agreement. Neither party will have any liability or recourse against the other arising from any lawsuit brought against one of the parties by reason of its exercise of rights under this Agreement.

ARTICLE 9 - FINANCIAL RECORDS AND REPORTS

9.1 Records. SIGA will keep full, complete and accurate books of account containing all particulars which may be reasonably necessary for determining the royalties payable to WUSTL. Said books of account will be kept at SIGA's principal place of business or the principal place of business of a division of SIGA which is marketing Licensed Products.

9.2 Audit. Said books and particulars of Section 9.1 will be available during normal business hours, upon reasonable notice, for two (2) years following the end of the calendar year to which

they pertain, for inspection by an independent certified public accountant retained by WUSTL at WUSTL expense, for the purpose of verifying SIGA royalty statements. SIGA will require its Subsidiaries to comply in like manner with the requirements of Section 9.1. In the event that SIGA's royalties calculated for any period are in error to the detriment of WUSTL by greater than five percent (5%), the reasonable cost of the audit and review will be borne by SIGA.

9.3 Reports. Concurrently with the payments required by Section 4.6 and the Product Development Plan Updates of Section 3.2, SIGA will deliver materially true and accurate royalty and revenue reports to WUSTL within thirty (30) days after the end of each Calendar Half, giving such particulars of the business conducted by SIGA during the preceding quarter as are pertinent to a royalty accounting under this Agreement.

(A) The quantity and types of Licensed Products made, used or sold, on a country by country basis;

(B) Total Net Selling Price for Licensed Products sold and total fair market value for Licensed Products bartered;

(C) Allowances and adjustments used to calculate Net Sales;

(D) Total royalties due for each Licensed Product;

(E) Name(s) and addresses of all Subsidiaries and Sublicensees.

9.4 Third Party Reports. SIGA will provide WUSTL one copy of all research, marketing, product development, product tests, or other evaluations for use by WUSTL in connection with the Project.

ARTICLE 10 - PATENT PROSECUTION AND ENFORCEMENT

10.1 Applications. WUSTL will select qualified independent patent counsel reasonable satisfactory to SIGA to file, prosecute and maintain Background Technology and Patent Rights patents and patent applications. SIGA will take all actions necessary to cooperate with and assist WUSTL in the prosecution and maintenance of Background Technology and Patent Rights patent applications and patents. Prosecution and maintenance fees and expenses will be borne by SIGA. WUSTL will keep SIGA informed as to the status of patents and patent applications included in the Background Technology and Patent Rights by providing SIGA with copies of all written communications with the patent offices and associated outside counsel and consulting SIGA on responses to the patent offices in advance of submission. Should WUSTL decide not to finance the preparation, filing, prosecution, or maintenance of any patent application or patent licensed hereunder, WUSTL will give notice to SIGA of such decision in writing in adequate time to allow SIGA at its own cost, to effectuate such preparation, filing, prosecution, or maintenance if it desires to do so. Nothing herein is intended or shall be construed as obligating

SIGA to maintain its license with respect to any patent or application licensed hereunder and to finance the preparation, filing, prosecution or maintenance of any patent application in any country or jurisdiction in which it believes it is not in the best business interest of SIGA to do so.

10.2 Enforcement. WUSTL and SIGA will each give immediate written notice to the other of any suspected infringement of patents included in the Background Technology or Patent Rights or unauthorized use of Background Technology or Tangible Personal Property by third parties. SIGA, at SIGA expense, will attempt to abate infringement or unauthorized use by third parties, and SIGA has the right to institute and conduct such legal action against third party infringers of patents included in the Background Technology or Patent Rights and/or unauthorized users of Background Technology and Tangible Personal Property, or enter into such settlement agreements, as deemed appropriate by SIGA; provided, however, that WUSTL will not be bound by any such settlement agreements without its prior approval, which will not be unreasonably withheld or delayed.

ARTICLE 11 - INDEMNIFICATION AND INSURANCE

11.1 Indemnification. SIGA will indemnify, defend and hold harmless WUSTL, its trustees, officers, faculty, staff and students, against any claims, liability, damage, loss or expense incurred by or imposed upon WUSTL in connection with any claims, suits, actions, demands or judgments arising out of (i) the design, production, manufacture, sale, use in commerce, lease, barter, or promotion by SIGA, its Sublicensees or agents of any Licensed Product, process or service relating to or developed pursuant to this Agreement by SIGA; or (ii) any other activities to be carried out pursuant to this Agreement by SIGA.

11.2 SIGA will at all times comply, through insurance or self-insurance, with all statutory workers' compensation and employers' liability requirements covering any and all employees with respect to activities performed under this Agreement. This insurance requirement may be fully met by insurance or self-insurance coverage provided to SIGA by a Sublicensee of SIGA.

11.3 SIGA shall, as commercially reasonable and at appropriate times, purchase liability insurance, which is appropriate as determined by industry standards, from a reputable insurance company in the following amounts with respect to the following activities:

(A) Licensed Products relating to laboratory research products and laboratory screening: \$ * million per occurrence and \$ * million in the aggregate.

(B) Licensed Products relating to in vitro human diagnostic test products and services and human clinical trials: \$ * million per occurrence and \$ * million in the aggregate.

(C) Licensed Products relating to human therapeutic products and/or human prophylactic products: \$ * million per occurrence and \$ * million in the aggregate.

* Confidential information is omitted and filed separately with the SEC.

As to insurance for Licensed Products relating to human therapeutic and/or human prophylactic products, their manufacture, marketing, distribution, sale or use, such insurance shall be carried by SIGA for a period of ten (10) years after (i) the date of the last commercial sale of the Licensed Products (on a Licensed Product-by-Licensed Product basis), or, (ii) the termination or expiration of this Agreement, whichever occurs later.

11.4 SIGA will provide WUSTL with a certificate of such insurance on an annual basis, and will provide a complete copy of such insurance policy to WUSTL as soon as one becomes available. No policies of insurance may be canceled or materially revised without thirty (30) days prior written to WUSTL. Each policy will be endorsed to incorporate this requirement relating to notice.

11.5 Prior to First Commercial Sale of any Licensed Product, process, or service relating to, or developed pursuant to this Agreement, SIGA will at its sole cost and expense procure and maintain policies of comprehensive general liability insurance in amounts not less than \$* per incident and \$* annual aggregate. WUSTL will be named as co-insured on the face of the insurance policy. Such comprehensive general liability insurance will provide broad form contractual liability coverage for SIGA's indemnification under this Agreement. The minimum amounts of insurance coverage required under this Article 11 will not be construed to create a limit of SIGA's liability with respect to its indemnification hereunder.

ARTICLE 12 - ARBITRATION

12.1 Arbitration. Any dispute or claim arising out of this Agreement, that cannot be settled by and between the Parties to their mutual satisfaction within a reasonable period of time, will be submitted to binding arbitration in St. Louis, Missouri under the Commercial Arbitration Rules of the American Arbitration Association by one arbitrator appointed in accordance with said Rules. The arbitrator will apply Missouri law to the merits of any dispute or claim, without reference to rules of conflicts of law. Such arbitrator shall be an attorney who is admitted to the Missouri State Bar and is experienced in commercial litigation. The arbitrator so selected shall schedule a hearing on the disputed issues within forty-five (45) days after his/her appointment and the arbitrator shall render a decision after the hearing, in writing, as expeditiously as is possible, which shall be delivered to the parties. The arbitrator shall render a decision based on written materials supplied by the parties to the arbitration in support of their respective oral presentations at the hearing. The parties shall supply a copy of any written materials to be submitted to the arbitrator at least fifteen (15) days prior to the scheduled hearing. A default judgment may be entered against a party who fails to appear at the arbitration hearing. Such decision and determination shall be final and unappealable and shall be filed as a judgment of record and be enforceable in any jurisdiction designated by the successful party. The parties to this Agreement agree that this Section has been included to rapidly and inexpensively resolve any disputes between them with respect to the matters described above, and that this Section shall be grounds for dismissal of any court action commenced by any party with respect to a

* Confidential information is omitted and filed separately with the SEC.

dispute arising out of such matters.

ARTICLE 13 - Termination

13.1 Bankruptcy. In the event that SIGA is the subject of a voluntary or involuntary petition for relief under the United States Bankruptcy Code, or if the business of SIGA will be placed in the hands of a receiver, trustee or assignee for the benefits of creditors, where by the voluntary act of SIGA or otherwise and such proceeding, if involuntary, is not vacated or terminated within sixty (60) days after its commencement, this Agreement and the licenses and all other rights granted to SIGA herein immediately will be deemed terminated.

13.2 Payment Default. Should SIGA default in its timely payment of royalties or any other payments or charges, WUSTL will have the right to serve notice upon SIGA of its intention to terminate this Agreement within ninety (90) days after receipt of said notice of termination unless SIGA will cure such default within the ninety (90) day period. If SIGA has not paid all such royalties or other charges due and payable within said ninety (90) day period and or cured its default, the rights, privileges licenses and options granted hereunder will terminate immediately upon receipt of written notice thereof from WUSTL. If the amount of royalties or other payments due to WUSTL is contested by SIGA, the rights, privileges and license granted hereunder will terminate ninety (90) days after the resolution of such dispute, upon written notice by WUSTL, if the amount due remains unpaid at the end of such ninety (90) day period.

13.3 Material Breach. Upon any material breach by SIGA of any material provision of this Agreement, except as contemplated by Sections 13.1 and 13.2, WUSTL will have the right to terminate this Agreement and the rights, licenses and options granted hereunder upon receipt of ninety (90) day's prior written notice of termination to SIGA by WUSTL. Such termination will become effective at the end of such ninety (90) day period unless SIGA has cured such breach prior to the expiration of the ninety (90) day period, or, SIGA has diligently commenced reasonable efforts to effect such cure prior to the expiration of the ninety (90) day period and diligently continues such efforts thereafter.

13.4 Termination by SIGA. SIGA may terminate this Agreement upon ninety (90) day's notice by certified mail to WUSTL. The rights, privileges licenses and options granted hereunder will terminate upon expiration of the ninety (90) day period.

13.5 Obligations on Termination. Upon termination of this Agreement for any reason SIGA will cease using Background Technology, Patent Rights and Tangible Personal Property, provided that SIGA may complete the manufacture of Licensed Product then in process and sell its remaining inventory of Licensed Products, subject to the payment of royalties as set forth in Article 4 and reporting requirements as set forth in Articles 6 and 9. However, nothing herein will be construed to release either party of any obligation which matured prior to the effective date of such termination. If termination of the Agreement occurs for any reason before research funding has been terminated, then SIGA is obligated to reimburse WUSTL for any non-

cancellable expenses associated with the Project for the remainder of the Contract Year in accordance with the research plan.

13.6 Return of Tangible Personal Property. Upon termination of this Agreement SIGA will return to WUSTL all Tangible Personal Property.

13.7 Survival. Articles 7, 11 and 12 and Section 13.5 will survive any termination or expiration of this Agreement.

ARTICLE 14 - PUBLICATION

14.1 SIGA recognizes that under WUSTL policy, the results of WUSTL research must be publishable and agrees that the Principal Investigator and Project Participants will be permitted to present at symposia, national, or regional professional meetings and to publish in journals, theses or dissertations, or otherwise of their own choosing, methods and results of the Project. WUSTL research personnel will at all times have the first opportunity to publish the research results of the Project.

14.2 SIGA will be furnished copies of any proposed publication or presentation in advance of the submission of such proposed publication or presentation to a journal, editor, or other third party. SIGA will have thirty (30) days after receipt of said copies to review said publication for patentable subject matter which needs protection and/or is Confidential information of SIGA which requires removal or revision. The parties will have an additional thirty (30) days (a total of 60 days) to agree upon revisions to the publication in order to protect SIGA Confidential Information. Further, publication may be withheld for an additional thirty (30) days (a total of 90 days) in order for SIGA to file patent application(s) with the United States Patent and Trademark office directed to patentable subject matter contained in the proposed publication or presentation. Upon the filing of a patent application, the material will be released for publication.

ARTICLE 15 - Miscellaneous Provisions

15.1 Government Rights. The Federal Government may have certain rights to Background Technology patents and Patent Rights by operation of law.

15.2 Personal Agreement. The license grants herein have been granted contingent upon the personal relationship between the parties. This Agreement is personal to the parties and may not be assigned by either party without the prior written consent of the other party, except as to an assignment by SIGA in connection with a sale of all or substantially all of its assets related to Licensed Products.

15.3 Neither party will be deemed to be an agent of the other party as a result of any transaction under or related to this Agreement, and will not in any way pledge the other party's

credit or incur any obligation on behalf of the other party.

15.4 Notice. Any notice or other communication pursuant to this Agreement will be sufficiently made or given on the date of mailing if sent to such party by certified First Class mail, postage prepaid, addressed to it at its address as first set forth in this Agreement, or as it will designate by subsequent written notice given to the other party. Notices will be sent to:

If to WUSTL: Center of Technology Management
 Campus Box 8013
 660 S. Euclid Ave.
 St. Louis, MO 63110

If to SIGA: 666 Third Avenue, 30th Floor
 New York, NY 10017

15.5 Publicity. SIGA will not use the name of WUSTL, nor any faculty member or employee of WUSTL, in any form of publicity, advertising, or news release without the prior written approval of WUSTL, which will not be unreasonably withheld or delayed.

15.6 Governing Law. This Agreement will be construed, governed, interpreted and applied in accordance with the laws of the State of Missouri, USA, except that questions affecting the construction and effect of any patent will be determined by the law of the country in which the patent was granted.

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

15.8 Integration. The Parties acknowledge that this instrument sets forth the entire agreement and understanding of the parties hereto as to the subject matter hereof, and will not be subject to any change or modification except by the execution of a written instrument subscribed to by the parties hereto.

15.9 Force Majeure. WUSTL and SIGA will not be liable for any failure to perform as required by this Agreement, to the extent such failure to perform is caused by any reason beyond the control of WUSTL or SIGA, or by reason of a force majeure event.

15.10 Export. SIGA will be responsible for obtaining appropriate licenses from the Federal Government prior to the export of Tangible Personal Property or any Licensed Products.

15.11 Amendment. This Agreement will only be amended by consent of both parties expressed

in writing and signed by both parties.

15.12 Headings. The headings are included for reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

15.13 Sublicense. The parties agree that in the event of the termination of this Agreement any sublicense granted hereunder shall be continued as a license between WUSTL and the sublicensee on the terms and conditions of such sublicense in effect at the time of any such termination.

IN WITNESS WHEREOF, the Parties have hereunder set their hands and seals and duly executed this Agreement in duplicate by its duly authorized officers the day and year first above written.

THE WASHINGTON UNIVERSITY

SIGA PHARMACEUTICALS, INC.

By: /s/ Theodore J. Cicero

By: /s/ David de Weese

Name: Theodore J. Cicero
Title: Vice Chancellor Research

Name: David de Weese
Title: Chairman and CEO

TECHNOLOGY TRANSFER AGREEMENT

TECHNOLOGY TRANSFER AGREEMENT ("Agreement") is entered into as of the 10th day of February, 1998, between SIGA Pharmaceuticals, Inc., a Delaware corporation ("Siga"), and MEDIMMUNE, Inc., a Delaware corporation ("MedImmune").

Preliminary Statement

The parties acknowledge that MedImmune wishes to grant a license to Siga, and Siga desires to receive a license to, the "Antibiotic Technology Package" (as defined below) in order to permit Siga to commence development of products in the "Antibiotic Field" (as defined below) based in part on the Antibiotic Technology Package, and Siga and MedImmune therefore agree as follows.

Agreement

Section 1. Definitions. For purposes of this Agreement, each defined term used in this Agreement and not otherwise defined shall have the meaning set forth below:

"Antibiotic Developments" means all discoveries, inventions, or other proprietary knowledge or matter having applications to the performance of research, development, production or sale of or otherwise concerning any product or service within the Antibiotic Field now owned by, controlled or subject to the rights of MedImmune.

"Antibiotic Field" means the detection, diagnosis and treatment of diseases in humans and non-human animals caused by gram-negative bacteria. For the avoidance of doubt, the "Antibiotic Field" does not include treatment or prevention of such diseases by use of a vaccine or immunotherapeutic.

"Antibiotic Group" means all employees of and consultants to MedImmune having knowledge of the Antibiotic Technology Package or any part thereof.

"Antibiotic Technology Package" means any and all discoveries and inventions, trade secrets, ideas, processes, data, techniques, formulas, compositions of matter, research results and know-how, in each case of any kind or nature and whether or not patentable or copyrightable and whether or not reduced to writing or any other tangible, intangible or electronic medium of expression, owned by MedImmune and which are related to, or which may have any applications with respect to, the Antibiotic Field.

"Hultgren Agreement" means that certain Agreement between MedImmune and Dr. Scott Hultgren dated March 2, 1995, as amended to date, attached to this Agreement as Exhibit A.

"Support Services" means the services which may be performed by MedImmune from time to time as requested by Siga pursuant to this Agreement as set forth on Schedule A to this Agreement.

"Swedish University Agreement" means that certain Contract Research Agreement between MedImmune and the Swedish University of Agriculture Sciences dated May 9, 1995, as amended to date, attached to this Agreement as Exhibit B.

"Symbicom Technology Rights" means all rights of Symbicom AB in and to the patents and patent applications listed on Exhibit C to this Agreement.

"Transfer" means the transfer of the Antibiotic Technology Package described in Section 3 below.

"Washington University Agreement" means that certain Research and License Agreement between MedImmune and Washington University dated as of March 1, 1995, as amended to date, attached to this Agreement as Exhibit D.

Section 2. License of Antibiotic Technology Package.

2.1 Subject to the terms and conditions of this Agreement, MedImmune hereby agrees to grant and hereby grants to Siga a sole and exclusive, fully paid, worldwide, royalty free, non-cancelable license (including the right to sublicense) under, in and to the Antibiotic Technology Package to research, develop, make, use, sell, offer for sale, import, export and lease products, services and processes of every kind and nature in the Antibiotic Field, and to have third persons do each of the foregoing for their own account or on behalf of Siga.

2.2 Upon the termination of this Agreement for any reason, each sublicense granted by Siga shall continue and shall be in full force and effect in accordance with this Agreement, and MedImmune agrees that it shall succeed to the rights of Siga under each such sublicense, provided that nothing shall be deemed to extend any sublicense beyond its original term after the date of termination of this Agreement unless specifically agreed to in writing by MedImmune. Siga agrees that it will not use or grant rights to or permit a third party to use the Antibiotic Technology Package for research, development, making, having made, using, selling, offering for sale, importing or exporting of products and processes outside of the Antibiotic Field.

2.3 (a) During the term of this Agreement MedImmune shall be responsible at its sole cost and expense for prosecuting and maintaining any patent

applications and patents included in the Antibiotic Technology Package. At Siga's request, MedImmune shall provide Siga with copies of all official actions and other communications received by MedImmune or its counsel with respect to the Antibiotic Technology Package. Siga agrees to cooperate with MedImmune in the preparation, filing, prosecution and maintenance of and such patents and patent applications by disclosing such information as may be necessary and by promptly executing such documents as MedImmune may request to effect such efforts. Siga shall bear its own costs in connection with such cooperation. If Siga wishes to file a patent application with respect to any invention or discovery included in or based in whole or in part on the Antibiotic Technology Package which is not the subject of a patent application or issued patent as of the date of this Agreement, Siga shall be free to do so in its own name and at its own cost and expense, and MedImmune shall have no rights in or to any such patent application or any

resulting patent (the "Siga Patents"). MedImmune agrees to cooperate with Siga in the preparation, filing, prosecution and maintenance of the Siga Patents by disclosing such information as may be necessary and by promptly executing such documents as Siga may request to effect such efforts. MedImmune shall bear its own costs in connection with such cooperation. Siga agrees that it will not assert the Siga Patents against MedImmune or its Affiliates or Sublicensees or their customers with respect to any product developed or commercialized by MedImmune, its Affiliates or Sublicensees which is a vaccine or immunotherapeutic for the treatment or prevention of diseases in humans or animals.

(b) MedImmune acknowledges that Siga reserves the right to commercialize any and all inventions or discoveries included in the Siga Patents as Siga may determine in its discretion. However, if Siga determines to grant any rights in or to any of the Siga Patents to third parties, Siga agrees that it shall first promptly inform MedImmune in writing of the nature of the invention or discovery described in the subject Siga Patent, with reasonable specificity. From and after the receipt of such notice, MedImmune shall have a right, by written notice delivered to Siga, to enter into exclusive, good faith negotiations for the grant of a license to such Siga Patent outside of the Antibiotic Field on commercially reasonable, mutually agreeable terms and conditions. If MedImmune and Siga have not successfully concluded such negotiations within sixty (60) days of the date of notice received by MedImmune from Siga of the existence of a Siga Patent delivered pursuant to the first sentence of this subsection (b), Siga shall be free to negotiate and execute such licenses or other grants of rights in and to such Siga Patent, if any, as it may determine in its sole and complete discretion, within or without the Antibiotic Field.

(c) MedImmune agrees that it shall not publish or otherwise publicly disseminate all or any portion of the Antibiotic Technology Package which may be utilized in the Antibiotic Field. If MedImmune desires to publish or otherwise publicly disseminate all or any portion of the Antibiotic Technology Package which may be utilized both within and outside the Antibiotic Field, it will give prior written notice to Siga and shall not so publish or disseminate if Siga can reasonably demonstrate within a reasonable period of time that such publication or dissemination will adversely affect development or commercialization of a Siga product in the Antibiotic Field; provided that if MedImmune can reasonably demonstrate to Siga that a failure to publish or disseminate will also adversely affect development or commercialization of a MedImmune Product, then following the notification procedure set forth above MedImmune shall be free to publish and otherwise publicly disseminate the subject portion of the Antibiotic Technology Package. Siga agrees that if it desires to publish or publicly disseminate all or any portion of the Antibiotic Technology Package, it may do so with appropriate references to MedImmune recognizing the contribution of MedImmune to the Antibiotic Technology Package.

(d) If either party becomes aware of the infringement of any patent or patent application included in the Antibiotic Technology Package, it shall immediately inform the other in writing of all details available. If a third party infringes any such patent or patent application within the Antibiotic Field, Siga may enforce such patents and patent applications by appropriate legal proceedings or otherwise at its own cost and expense, and shall retain all

recoveries. MedImmune may be represented by MedImmune's counsel in any such legal proceedings, at MedImmune's own expense, in an advisory but not controlling capacity.

Section 3. Transfer of Technology Package.

3.1 MedImmune acknowledges and agrees that it will use its commercially reasonable efforts, consistent with this Section 3, to provide Siga with prompt and full cooperation so as to insure that the Antibiotic Technology Package is transferred promptly and completely to Siga.

3.2 In order to facilitate the transfer of the Antibiotic Technology Package, MedImmune hereby designates Dr. Scott Koenig, and Siga hereby appoints Dr. Dennis Hruby (each a "Coordinator"), as their respective project coordinators for oversight and coordination of the effective transfer of the Antibiotic Technology Package. The Coordinators shall be responsible for the coordination of the Transfer, identification of members of the Antibiotic Group, informing Siga of any Antibiotic Developments, the performance of the Support Services, receiving and transmitting information regarding the Antibiotic Technology Package and the transfer process, and attempting to resolve disputes between the parties.

3.3 Immediately following the execution of this Agreement, and for so long as the parties mutually deem reasonably necessary or desirable to effect the purposes of this Agreement (including without limitation the Transfer), Siga and MedImmune agree that Siga shall be entitled from time to time with reasonable notice and at reasonable times to send to MedImmune and each of its facilities for purposes of meeting and working with members of the Antibiotic Group and learning the details of the Antibiotic Technology Package such personnel as Siga may reasonably request, provided that in no event shall the cooperation and assistance described in this Section extend beyond twenty four (24) months following the date of this Agreement except upon the mutual agreement of the parties. During such period the members of the Antibiotic Group shall:

(i) review the Antibiotic Technology Package and all related materials with such Siga personnel in such reasonable detail as the Siga personnel may request;

(ii) provide such Siga personnel with all written and tangible background materials, data, information and know-how included in or related to the Antibiotic Technology Package in the possession of any member of the Antibiotic Group or MedImmune and with respect to which the party has a transferable interest, including without limitation any such materials, data, information and know-how which may be necessary or desirable for the practice or use of the Antibiotic Technology Package; and

(iii) explain and demonstrate for such Siga personnel all knowledge, inventions, processes and techniques included within the Antibiotic Technology Package in order to provide Siga personnel with sufficient expertise to use and practice all such knowledge, inventions, processes and techniques, and, if reasonably deemed necessary or appropriate by Siga, provide any available information in the Antibiotic Field necessary to allow Siga to pursue, apply for and perfect any related intellectual property rights and governmental approvals.

3.4 Siga acknowledges that MedImmune and its officers, directors, employee and consultants are and shall have other obligations that may conflict or interfere with the performance of the obligations of MedImmune set forth in this Section 3. If any such conflict or interference shall arise, MedImmune shall so inform Siga, such other obligations shall take precedence over those owing to Siga under this Section 3, and the performance of such obligations owing to Siga hereunder shall be deferred, but not indefinitely, to a later mutually agreeable time at which such obligations can be performed.

Section 4. Subsequent Services; Other Rights and Agreements.

4.1 Following completion of the Transfer in accordance with Section 3 above, MedImmune may in its sole and absolute discretion perform the Support Services during the relevant time periods set forth on Schedule A to this Agreement and otherwise subject to the terms set forth on Schedule A. Nothing in this Agreement shall require Siga to request the Support Services from MedImmune, and Siga may obtain the same or similar services from any person or entity it may desire in its sole discretion.

4.2 As further consideration for the covenants of the parties set forth in this Agreement, from and after the date of this Agreement, (i) Siga agrees that it shall not attempt, nor shall it directly or indirectly cooperate with any third party to attempt, to develop any vaccine technology or product based in whole or in part on the Antibiotic Technology Package, and shall promptly inform MedImmune of any expressions of interest received from third parties regarding their interest in obtaining rights to use any portion of the Antibiotic Technology Package for such purpose, and (ii) MedImmune agrees that it shall not attempt, nor shall it directly or indirectly cooperate with any third party to attempt, to develop any technology or product in the Antibiotic Field by use of the Antibiotic Technology Package, and shall promptly inform Siga of any expressions of interest received from third parties regarding the interest of MedImmune in the Antibiotic Technology Package in the Antibiotic Field.

Section 5. Consideration. In consideration of the license of the Antibiotic Technology Package and the obligations of MedImmune set forth in this Agreement:

(i) Siga agrees to execute and perform the terms of those certain Stock Purchase and Registration Rights Agreements between Siga and MedImmune of even date with this Agreement; and

(ii) To the extent necessary, MedImmune and Siga shall execute and deliver, together with each of the appropriate parties referenced below, each of the following agreements and instruments, in form and substance reasonably satisfactory to each of MedImmune and Siga; (a) an assignment by MedImmune to Siga of all rights of MedImmune under the Washington University Agreement; and (b) an assignment by MedImmune to Siga of all rights of MedImmune under the Swedish University Agreement.

Section 6. Representations and Warranties.

6.1 MedImmune hereby represents and warrants to Siga that:

(i) MedImmune has the full right, power and authority to execute, deliver and perform its obligations under this Agreement, and that such execution, delivery and performance does not and will not violate the terms of any agreement, document, instrument, understanding, law, rule, regulation or court order to which MedImmune is a party or by which MedImmune is bound;

(ii) this Agreement constitutes the binding agreement of MedImmune and is enforceable against MedImmune in accordance with its terms;

(iii) MedImmune owns the Antibiotic Technology Package, without restrictions or encumbrances on its title or interest.

(iv) MedImmune has not granted to any third party any license, option, right or other interest of any nature in or to the Antibiotic Technology Package in the Antibiotic Field;

(v) MedImmune has no present knowledge of the existence of any claims or threatened claims by any third person or entity of any rights to or interest in the Antibiotic Technology Package in the Antibiotic Field;

(vi) to the present knowledge of MedImmune, neither any item of the Antibiotic Technology Package, nor the practice or use of any item of the Antibiotic Technology Package, whether by Siga or any designee or affiliate of Siga, is a misappropriation of, or infringes on or otherwise violates, any patents, copyrights or other intellectual property rights of any third person or entity;

(vii) MedImmune currently does not own or control any intellectual property rights, other than those agreed to be sold, transferred and assigned to Siga pursuant to this Agreement, which would be infringed by Siga's exploitation of the Antibiotic Technology Package; and

(viii) each of the agreements, assignments and instruments described in Section 5(ii) which are anticipated to be executed and delivered by MedImmune are the valid and binding obligations of MedImmune, and are enforceable in accordance with their respective terms.

(ix) MedImmune has terminated, and has no further rights under or with respect to, that certain agreement between MedImmune and Dr. Scott Hultgren dated March 2, 1995, in the form of Exhibit E to this Agreement.

For purposes of this Section 6.1, the word "knowledge" refers to the actual, conscious awareness of a referenced individual, or an officer, director or employee of a referenced entity, of the facts, circumstances or events, or lack thereof, referred to in connection with the use of the word "knowledge" in this Section 6.1.

6.2 EXCEPT AS OTHERWISE SPECIFICALLY SET FORTH IN SECTION 6.1 ABOVE, MEDIMMUNE MAKES NO OTHER REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR VALIDITY OF INTELLECTUAL PROPERTY RIGHTS.

6.3 Siga hereby represents and warrants to MedImmune that:

(i) Siga has the full right, power and authority to execute, deliver and perform its obligations under this Agreement, and that such execution, delivery and performance does not and will not violate the terms of any agreement, document, instrument or understanding to which Siga is a party or by which Siga is bound; and

(ii) this Agreement constitutes the binding agreement of Siga and is enforceable against Siga in accordance with its terms;

Section 7. Confidentiality.

7.1 For purposes of this Agreement:

(a) "Medimmune Confidential Information" means and includes all of the technology, information and rights included within the Antibiotic Technology Package, including without limitation: (i) any and all written, oral or documentary information, reports, abridgements, analyses, extracts or summaries prepared by MedImmune and any member of the Antibiotic Group, regardless of the medium of expression in which such information is contained; and (ii) any and all physical models, blueprints, schematics, drawings, designs, specifications, codes (including object code and source code), programs and formulas related to or describing any Antibiotic Technology, and (iii) any and all information regarding the business, properties or affairs of MedImmune;

(b) "Siga Confidential Information" means and includes all means all proprietary or confidential information related to the business, properties or affairs of Siga, exclusive of the MedImmune Confidential Information, including without limitation: (i) any and all written, oral or documentary information, reports, abridgements, analyses, extracts or summaries prepared by or on behalf of Siga, regardless of the medium of expression in which such information is contained; and (ii) any and all physical models, blueprints, schematics, drawings, designs, specifications, codes (including object code and source code), programs and formulas related to or describing any technology owned or controlled by Siga;

(c) "Confidential Information" means the MedImmune Confidential Information and the Siga Confidential Information, collectively.

The parties agree that all Confidential Information shall be presumed as such if stamped as "Confidential" or "Proprietary", or, if communicated orally, is identified as confidential or

proprietary by written notice delivered by the disclosing party within thirty (30) days of the date of disclosure.

7.2 "Confidential Information" of the disclosing party shall not include information which:

(a) is or becomes publicly known through no wrongful act of the receiving party or any of its Representatives, or is explicitly approved for public release by the written authorization of an authorized officer of the disclosing party;

(b) was in the possession of the receiving party prior to the execution of this Agreement;

(c) is lawfully received by the receiving party from a third party which has no obligation of confidentiality to the disclosing party;

(d) is required to be disclosed by a court or governmental authority of appropriate jurisdiction, provided that the party required to disclose such Confidential Information shall give the other party prompt written notice of such compelled disclosure in sufficient time to allow the other party to prevent such disclosure or receive confidential treatment of such information.

The parties acknowledge that Siga may find it necessary or advisable to include certain of the MedImmune Confidential Information in filings for approvals of products and services to be developed by Siga, and MedImmune acknowledges that such filings shall be beneficial to Siga and its stockholders. Siga agrees to provide MedImmune with advanced notice of any filing that contains such MedImmune Confidential Information, and MedImmune agrees that it shall not unreasonably withhold or delay its consent to such disclosure by Siga. Siga further agrees that it will take commercially reasonable measures to protect and maintain the confidentiality of MedImmune Confidential Information included in any such filings.

7.3 Unless expressly authorized by the disclosing party, each party agrees that it (i) shall not at any time disclose or permit any of its directors, officer, employees, agents, consultants or financing sources (the "Representatives") to disclose the other party's Confidential Information to any third person or entity, (ii) will hold, and will use commercially reasonable efforts to cause each of its Representatives to hold, the other party's Confidential Information in strict confidence, and (iii) will not use, nor permit any of its Representatives to use, any of the other party's Confidential Information for any purpose other than such purposes as are expressly contemplated by this Agreement or which may otherwise be allowed pursuant to any written agreements between the parties. Each party hereby represents to the other party that (A) such party's Representatives are and shall in the future be bound by obligations of confidentiality which are no less restrictive than the obligations of confidentiality set forth in this Agreement, and (B) such agreements are binding and enforceable under relevant law against such party's Representatives.

Section 8. Indemnification. None of MedImmune or its officers, directors, employees or agents (each an "Indemnified Person") shall have any liability or responsibility whatsoever to Siga or any affiliate of Siga or any other person or entity for or on account of any injury, loss, or damage, of any kind or nature, sustained by, or any damage assessed or asserted against, or any other liability incurred by or imposed upon them, whether direct, indirect, special, punitive, incidental, consequential or otherwise arising under any legal theory, arising out of or in connection with or resulting from (i) the development, manufacture, use of sale of the Antibiotic Technology Package or products or services in the Antibiotic by Siga or any of its affiliates, (ii) any advertising or other promotional activities with respect to any such product or service, or (iii) the production or sale of any product identified, characterized or otherwise developed by Siga or any affiliate of Siga with the aid of the Antibiotic Technology. Siga shall indemnify, defend and hold each Indemnified Person harmless against all claims, demands, losses, damages or penalties (including but not limited to attorney's fees and expenses) made against any Indemnified Person with respect to items (i), (ii) and (iii) above, whether or not such claims are groundless or without merit or basis.

Section 9. Miscellaneous.

9.1 Siga and MedImmune agree that the execution and performance of this Agreement by the parties and a general description of the subject matter, the participants and the benefits to the respective parties may be publicly announced by appropriate publicity in the ordinary course of business, provided that such publicity shall not disclose any Confidential Information nor, unless mutually agreed to by the parties, disclose the form or amount of consideration to be paid by Siga to MedImmune hereunder. Siga and MedImmune further agree that any subsequent press releases or other forms of publicity regarding their relationship shall be made only as mutually agreed (such agreement not to be unreasonably withheld by either party).

9.2 No remedy conferred by any of the specific provisions of this Agreement is intended to be exclusive of any other remedy, and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise.

9.3 This Agreement shall be governed by and construed and interpreted in accordance with the laws of the State of New York applicable to contracts between residents of New York made and carried out entirely within such state without regard to choice of law principles.

9.4 This Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of each of the parties, and may not be assigned to any person or entity without the express written consent of the other party hereto, provided, that either party may assign its rights (but not its obligations) under this Agreement to any affiliate of such party and to any acquiror of all or substantially all of its assets and business generally or related specifically to the Antibiotic Field, whether by way of merger, consolidation, sale or other similar transaction or related series of transactions.

9.5 Any notice or other communication required or permitted to be given by any party hereto shall be in writing and shall be deemed to have been duly given if hand delivered or five (5) days after deposit for delivery by regular first class mail, postage prepaid, addressed to each respective party at the address given below:

If to Siga: SIGA Pharmaceuticals, Inc.
666 Third Avenue, 30th Floor
New York, NY 10017
Attention: President

with a copy to: Jeffrey D. Abbey
Eilenberg & Zivian
666 Third Avenue, 30th Floor
New York, NY 10017

If to MedImmune: MedImmune, Inc.
35 W. Watkins Mill Road
Gaithersburg, MD 20878
Attention: David Mott

or to such other address as any party hereto shall indicate by proper notice to the other in the same manner as provided in this paragraph.

9.6 This Agreement, including the schedules and exhibits, constitutes the entire understanding and agreement of the parties hereto with respect to the subject matter hereof and supersedes all prior agreements or understandings, written or oral, between the parties with respect to the subject matter hereof.

9.7 Headings and captions are intended for convenience only and shall not be considered to define, limit or affect the interpretation or construction of this Agreement. This Agreement may be executed in two or more counterparts, each of which when taken together shall constitute one and the same agreement.

9.8 This Agreement may not be amended except by a written instrument signed by the parties hereto.

9.9 Any dispute between MedImmune and Siga over the subject matter of this Agreement that is not resolved by the Coordinators shall be submitted to arbitration in accordance with this Section 9.9, provided that neither party shall be obligated to submit any claim involving patent infringement or a specific claim for injunctive relief to arbitration in the first instance.

The party alleging that a dispute exists shall send a notice of that dispute to the other stating the dispute in reasonable detail, and such party's position with respect to that dispute. If that dispute is not resolved by the parties within thirty (30) days after the delivery of the notice, the party alleging the dispute may apply to the New York, New York ("NYC") office

of the American Arbitration Association for the appointment of a technologically competent and commercially experienced arbitrator residing in or about NYC.

The arbitrator will schedule a hearing in NYC on the disputed issues within forty-five (45) days of his appointment, and will render his decision in writing as expeditiously as possible after the hearing. The arbitrator will render his decision based solely on written materials supplied by the parties and their oral presentations at the hearing (which shall be limited in duration to no more than two (2) days), and no party will be entitled to conduct any discovery. Each party will supply the other with a copy of any written materials to be submitted to the arbitrator at least ten (10) days prior to the scheduled hearing. A default judgment may be entered against a party failing to appear at the arbitration hearing. The decisions of the arbitrator shall be final, binding on the parties and unappealable, and may be filed as a judgment of record in any jurisdiction designated by the successful party.

Siga and MedImmune agree that this Section 9.9 has been included to rapidly and inexpensively resolve disputes between them with respect to the matters described in this Agreement, and except for specific claims related to patent infringement or injunctive relief, this Section 9.9 shall be grounds for dismissal of any court action commenced by either of them prior to the conclusion of the arbitration of any dispute arising out of such matters.

9.10 The parties each acknowledge and agree that either may suffer irreparable harm if the other breaches certain of its obligations contained in this Agreement, and that a party may not have an adequate remedy at law in the event of the other party's actual or threatened breach of such party's obligations. Accordingly, each party agrees that in the event of any actual or threatened breach by it of any of its obligations under this Agreement, the other party shall be entitled to seek injunctive and other equitable relief to enforce such obligations, without the need to post any bond which might otherwise be required and without the necessity of showing actual monetary damages. The exercise of such rights by a party shall be cumulative and nonexclusive and shall be in addition to any other remedy to which such party may be entitled.

*****END OF TEXT*****

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first written above.

SIGA Pharmaceuticals, Inc., a Delaware corporation

By: /s/ David de Weese

Title: President & CEO

Name: David de Weese

(Printed)

MedImmune, Inc., a Delaware corporation

By: /s/ David Mott

Title: President

Name: David Mott

(Printed)

Schedule A
to Technology Transfer Agreement

For purposes of this Agreement, the term "Support Services" means and includes each of the following:

1. At the sole discretion of MedImmune, provide active, ongoing oversight and scientific guidance and support in the development by Siga of compounds, products and services based in whole or in part on the Antibiotic Technology Package, for a period not to exceed twenty four (24) months following the execution of this Agreement;

2. At the sole discretion of MedImmune, provide active assistance in the development of strategy to protect and seek patent protection for any of the Antibiotic Technology Package, for a period not to exceed twelve (12) months following the execution of this Agreement;

3. At the sole discretion of MedImmune, conduct animal testing on compounds and products developed by or for Siga in connection with the Antibiotic Technology Package using in-house animal models developed by MedImmune prior to or following the date of this Agreement; and

4. At the sole discretion of MedImmune, provide usual and customary clinical, clinical trial and regulatory compliance and development services of the type necessary for the development, regulatory approval and sale of a commercial product within the Antibiotic Field by Siga.

EMPLOYMENT AGREEMENT

This Employment Agreement (this "Agreement"), effective as of January 1, 1998, between SIGA PHARMACEUTICALS, INC., a Delaware corporation (with its successors and assigns, referred to as the "Corporation"), and Dr. Dennis Hruby (referred to as "Hruby").

Preliminary Statement

Hruby is currently employed by the Corporation pursuant to an employment agreement, dated April 1, 1997 (the "Prior Agreement"). The Corporation and Hruby wish to enter into a new agreement, as of January 1, 1998, regarding Hruby's employment by the Corporation on a full-time basis and containing the other agreements set forth in this Agreement, all of which are related to Hruby's employment under this Agreement.

Agreement

Hruby and the Corporation therefore agree as follows:

1. Termination of Prior Agreement. The Prior Agreement shall terminate as of January 1, 1998 and shall be replaced by this Agreement.
2. Employment for Term. The Corporation hereby employs Hruby and Hruby hereby accepts employment with the Corporation for the period beginning on the date of this Agreement and ending on January 1, 2000 (the "Initial Term"), or upon the earlier termination of the Term pursuant to Section 6. This Agreement shall be automatically renewed for additional one-year periods (the "Renewal Terms;" together with the Initial Term, the "Term") unless either party notifies the other in writing of its intention not to so renew this Agreement no less than 60 days prior to the expiration of the Initial Term or a Renewal Term. The termination of Hruby's employment under this Agreement shall end the Term but shall not terminate Hruby's or the Corporation's other agreements in this Agreement, except as otherwise provided in this Agreement.
3. Position and Duties. During the Term, Hruby shall serve as the Vice President of Research of the Corporation. During the Term, Hruby shall also hold such additional positions and titles as the Board of Directors of the Corporation (the "Board") may determine from time to time. The Corporation agrees that prior to hiring a Vice President of Development, the Corporation will discuss such additional position with Hruby. During the Term, Hruby shall devote his full time and efforts to his duties as an employee of the Corporation (aside from his commitment to Oregon State University to oversee research funded by, or of interest to, the Corporation).
4. Compensation.
 - (a) Base Salary. The Corporation shall pay Hruby a base salary, beginning on the first day of the Term and ending on the last day of the Term, of not less than \$170,000 per annum, payable at least monthly on the Corporation's regular pay cycle for professional employees.
 - (b) Additional Payment. Following the execution of this Agreement, Hruby shall receive a one-time payment of \$14,145 in consideration for his work done on behalf of the Corporation from September through December 1997.
 - (c) Stock Options. Pursuant to the Corporation's stock option plan, the Corporation shall grant to Hruby options to purchase 40,000 shares of the Corporation's Common Stock at an exercise price equal to closing bid price of the Common Stock of the Corporation on the date hereof. The options shall vest on a pro rata basis (10,000 shares each) on April 1, 1999, April 1, 2000, April 1, 2001 and April 1, 2002. The options shall expire on January 1, 2008.
 - (d) Other and Additional Compensation. The preceding sections establish the minimum compensation during the Term and shall not preclude the Board from awarding Hruby a higher salary or any bonuses or stock options in the discretion of the Board during the Term at any time. The Company intends to adopt a performance based bonus plan for 1998 and subsequent years and Hruby will be eligible to participate in such plan.
5. Employee Benefits. During the Term, Hruby shall be entitled to the employee benefits, including vacation, 401(k) plan, health plan and other insurance benefits made available by the Corporation to any other employee of the Corporation.
6. Expenses. The Corporation shall reimburse Hruby for actual out-of-pocket expenses incurred by him in the performance of his services for the Corporation upon the receipt of appropriate documentation of such expenses.
7. Termination.
 - (a) General. The Term shall end immediately upon Hruby's death. The Term may also end for Cause or Disability, as defined in Section 8.

(b) Notice of Termination. Promptly after it ends the Term, the Corporation shall give Hruby notice of the termination, including a statement of whether the termination was for Cause or Disability (as defined in Section 8(a) and 8(b) below). The Corporation's failure to give notice under this Section 7(b) shall not, however, affect the validity of the Corporation's termination of the Term.

(c) Effective Termination by Corporation. If the Corporation materially reduces Hruby's duties during the term, including replacing Hruby as Vice President of Research, then, at his option, Hruby may treat such reduction in duties as a termination of the Term without Cause by the Corporation.

8. Severance Benefits.

(a) "Cause" Defined. "Cause" means (i) willful malfeasance or willful misconduct by Hruby in connection with his employment; (ii) Hruby's gross negligence in performing any of his duties under this Agreement; (iii) Hruby's conviction of, or entry of a plea of guilty to, or entry of a plea of nolo contendere with respect to, any crime other than a traffic violation or infraction which is a misdemeanor; (iv) Hruby's material breach of any written policy applicable to all employees adopted by the Corporation which is not cured to the reasonable satisfaction of the Corporation within fifteen (15) business days after notice thereof; or (v) material breach by Hruby of any of his agreements in this Agreement which is not cured to the reasonable satisfaction of the Corporation within fifteen business days after notice thereof.

(b) Disability Defined. "Disability" shall mean Hruby's incapacity due to physical or mental illness that results in his being unable to substantially perform his duties hereunder for six consecutive months (or for six months out of any nine month period). During a period of Disability, Hruby shall continue to receive his base salary hereunder, provided that if the Corporation provides Hruby with disability insurance coverage, payments of Hruby's base salary shall be reduced by the amount of any disability insurance payments received by Hruby due to such coverage. The Corporation shall give Hruby written notice of termination which shall take effect sixty (60) days after the date it is sent to Hruby unless Hruby shall have returned to the performance of his duties hereunder during such sixty (60) day period (whereupon such notice shall become void).

(c) Termination. If the Corporation ends the Term for Cause or Disability, or if Hruby resigns as an employee of the Corporation for reasons other than a material breach by the Corporation of its obligations under this Agreement or a material reduction of Hruby's duties as provided in Section 7(c), or if Hruby dies, then the Corporation shall have no obligation to pay Hruby any amount, whether for salary, benefits, bonuses, or other compensation or expense reimbursements of any kind, accruing after the end of the Term, and such rights shall, except as otherwise required by law, be forfeited immediately upon the end of the Term. If the Corporation ends the Term without Cause, then the Corporation will be obligated to pay Hruby's salary for the remainder of the Term. In addition, in the event of a change in the ownership of greater than fifty percent (50%) of the Corporation's outstanding voting stock or any transaction described in Section 10(b), Hruby may elect to terminate this Agreement as if it were a termination by the Corporation without Cause, except that the Corporation shall not be obligated to pay Hruby's salary for the remainder of the Term.

9. Confidentiality, Ownership, and Covenants.

(a) "Corporation Information" and "Inventions" Defined. "Corporation Information" means all information, knowledge or data of or pertaining to (i) the Corporation, its employees and all work undertaken on behalf of the Corporation, and (ii) any other person, firm, corporation or business organization with which the Corporation may do business during the Term, that is not in the public domain (and whether relating to methods, processes, techniques, discoveries, pricing, marketing or any other matters). "Inventions" collectively refers to any and all inventions, trade secrets, ideas, processes, formulas, source and object codes, data, programs, other works of authorship, know-how, improvements, research, discoveries, developments, designs, and techniques regarding any of the foregoing.

(b) Confidentiality. (i) Hraby hereby recognizes that the value of all trade secrets and other proprietary data and all other information of the Corporation not in the public domain disclosed by the Corporation in the course of his employment with the Corporation may be attributable substantially to the fact that such confidential information is maintained by the Corporation in strict confidentiality and secrecy and would be unavailable to others without the expenditure of substantial time, effort or money. Hraby therefore, except as provided in the next two sentences, covenants and agrees that all Corporation Information shall be kept secret and confidential at all times during the Term and for the five (5) year period after the end of the Term and shall not be used or divulged by him outside the scope of his employment as contemplated by this Agreement, except as the Corporation may otherwise expressly authorize by action of the Board. In the event that Hraby is requested in a judicial, administrative or governmental proceeding to disclose any of the Corporation Information, Hraby will promptly so notify the Corporation so that the Corporation may seek a protective order or other appropriate remedy and/or waive compliance with this Agreement. If disclosure of any of the Corporation Information is required, Hraby may furnish the material so required to be furnished, but Hraby will furnish only that portion of the Corporation Information that legally is required.

(ii) Hraby also hereby agrees to keep the terms of this Agreement confidential.

(c) Ownership of Inventions, Patents and Technology.

(i) In General. Subject to Section 9(c)(ii) below, Hraby hereby assigns to the Corporation all of Hraby's right (including patent rights, copyrights, trade secret rights, and all other rights throughout the world), title and interest in and to Inventions, whether or not patentable or registrable under copyright or similar statutes, made or conceived or reduced to practice or learned by Hraby, either alone or jointly with others, during the course of the performance of services for the Corporation. Hraby shall also assign to, or as directed by, the Corporation, all of Hraby's right, title and interest in and to any and all Inventions, the full title to which is required to be in the United States government by a contract between the Corporation and the United States

government or any of its agencies. The Corporation shall have all right, title and interest in all research and work product produced by Hruby as an employee of the Corporation, including, but not limited to, all research materials and lab books.

(ii) Oregon State University. Specifically, Hruby shall promptly and fully disclose to the Corporation any and all inventions, methods, improvements, discoveries, original works of authorship, trade secrets, or other intellectual property conceived, developed or reduced to practice by Hruby or any of his employees, consultants or research assistants, during the performance of the Term hereunder or derived from Confidential Information, including without limitation, as relates to the Core Technology, as defined in a research agreement (the "Research Agreement"), dated as of January 31, 1996, by and between the Corporation and The State Board of Higher Education on behalf of Oregon State University ("Oregon") (collectively, "Work Product"). Hruby shall treat all Work Product as the Confidential Information of the Corporation. Hruby agrees and does hereby assign to the Corporation and its successors and assigns, without further consideration, his entire right, title and interest in and to all Work Product developed during the performance of the Term hereunder or derived from any Confidential Information, whether or not patentable or copyrightable, subject only to the provisions of the Research Agreement and Oregon's rights thereunder and any other existing written agreement Hruby may have with Oregon. Hruby further agrees to execute all applications for patents and/or copyrights, domestic or foreign, assignments and other papers necessary to secure and enforce rights relating to the Work Product. The parties acknowledge that all original works of authorship that are made by Hruby within the scope of the Term and that may be protected by copyrighted are "works made for hire," as that time is defined in the United States Copyright Act (17 USC Section 101).

(d) Non-Competition Period Defined. "Non-Competition Period" means the period beginning at the end of the Term and ending one (1) year after the end of the Term.

(e) Covenants Regarding the Term and Non-Competition Period. Hruby acknowledges and agrees that his services pursuant to this Agreement are unique and extraordinary; that the Corporation will be dependent upon Hruby for the research of antibiotics, vaccines and anti-infectives; and that he will have access to and control of confidential information of the Corporation. Hruby further acknowledges that the business of the Corporation is international in scope and cannot be confined to any particular geographic area. For the foregoing reasons and to induce the Corporation to enter this Agreement, Hruby covenants and agrees that, subject to Section 9(h), during the Term and the Non-Competition Period Hruby shall not unless with written consent of the Corporation:

(i) engage in the business of research of the Core Technology, as defined in the Research Agreement, or any other products or processes in which the Corporation is engaged in during the Term or in any other business conducted

by the Corporation during the Term (collectively the "Prohibited Activity") in the World for his own account;

(ii) become interested in any individual, corporation, partnership or other business entity (a "Person") engaged in any Prohibited Activity in the World, directly or indirectly, as an individual, partner, shareholder, officer, director, principal, agent, employee, trustee, consultant or in any other relationship or capacity; provided, however, that Hruby may own directly or indirectly, solely as an investment, securities of any Person which are traded on any national securities exchange if Hruby (x) is not a controlling person of, or a member of a group which controls, such person or (y) does not, directly or indirectly, own 5% or more of any class of securities of such person;

(iii) directly or indirectly hire, engage or retain any person which at any time during the Term or Non-Competition Period was a supplier, client or customer of the Corporation, or directly or indirectly solicit, entice or induce any such person to become, a supplier, client or customer of any other person engaged in any Prohibited Activity; or

(iv) directly or indirectly hire, employ or retain any person who at any time was an employee of the Corporation or directly or indirectly solicit, entice, induce or encourage any such person to become employed by any other person.

(f) Remedies. Hruby hereby acknowledges that the covenants and agreements contained in Section 9 are reasonable and valid in all respects and that the Corporation is entering into this Agreement, inter alia, on such acknowledgment. If Hruby breaches, or threatens to commit a breach, of any of the Restrictive Covenants, the Corporation shall have the following rights and remedies, each of which rights and remedies shall be independent of the other and severally enforceable, and all of which rights and remedies shall be in addition to, and not in lieu of, any other rights and remedies available to the Corporation under law or in equity: (i) the right and remedy to have the Restrictive Covenants specifically enforced by any court having equity jurisdiction, it being acknowledged and agreed that any such breach or threatened breach will cause irreparable injury to the Corporation and that money damages will not provide an adequate remedy to the Corporation; (ii) the right and remedy to require Hruby to account for and pay over to the Corporation such damages as are recoverable at law as the result of any transactions constituting a breach of any of the Restrictive Covenants; (iii) if any court determines that any of the Restrictive Covenants, or any part thereof, is invalid or unenforceable, the remainder of the Restrictive Covenants shall not thereby be affected and shall be given full effect, without regard to the invalid portions; and (iv) if any court construes any of the Restrictive Covenants, or any part thereof, to be unenforceable because of the duration of such provision or the area covered thereby, such court shall have the power to reduce the duration or area of such provision and, in its reduced form, such provision shall then be enforceable and shall be enforced.

(g) Jurisdiction. The parties intend to and hereby confer jurisdiction to enforce the Restrictive Covenants upon the courts of any jurisdiction within the geographical scope of such Covenants. If the courts of any one or more such jurisdictions hold the Restrictive Covenants wholly unenforceable by reason of the breadth of such scope or otherwise, it is the intention of the parties that such determination not bar or in any way affect the Corporation's right to the relief provided above in the courts of any other jurisdiction, within the geographical scope of such Covenants, as to breaches of such Covenants in such other respective jurisdictions such Covenants as they relate to each jurisdiction being, for this purpose, severable into diverse and independent covenants.

(h) Hruby's agreements and covenants under Section 9(e) shall automatically terminate if the Corporation ends the Term without Cause or Hruby resigns due to a material breach by the Corporation of its obligations under this Agreement or a material reduction of Hruby's duties as provided in Section 7(c).

10. Successors and Assigns.

(a) Hruby. This Agreement is a personal contract, and the rights and interests that the Agreement accords to Hruby may not be sold, transferred, assigned, pledged, encumbered, or hypothecated by him. All rights and benefits of Hruby shall be for the sole personal benefit of Hruby, and no other person shall acquire any right, title or interest under this Agreement by reason of any sale, assignment, transfer, claim or judgment or bankruptcy proceedings against Hruby. Except as so provided, this Agreement shall inure to the benefit of and be binding upon Hruby and his personal representatives, distributees and legatees.

(b) The Corporation. This Agreement shall be binding upon the Corporation and inure to the benefit of the Corporation and of its successors and assigns, including (but not limited to) any corporation that may acquire all or substantially all of the Corporation's assets or business or into or with which the Corporation may be consolidated or merged. In the event that the Corporation sells all or substantially all of its assets, merges or consolidates, otherwise combines or affiliates with another business, dissolves and liquidates, or otherwise sells or disposes of substantially all of its assets and Hruby does not elect to treat any such transaction as a termination by the Corporation without Cause pursuant to Section 8(c), then this Agreement shall continue in full force and effect. The Corporation's obligations under this Agreement shall cease, however, if the successor to, the purchaser or acquiror either of the Corporation or of all or substantially all of its assets, or the entity with which the Corporation has affiliated, shall assume in writing the Corporation's obligations under this Agreement (and deliver an executed copy of such assumption to Hruby), in which case such successor or purchaser, but not the Corporation, shall thereafter be the only party obligated to perform the obligations that remain to be performed on the part of the Corporation under this Agreement.

11. Entire Agreement. This Agreement represents the entire agreement between the parties concerning Hruby's employment with the Corporation and supersedes all prior

negotiations, discussions, understandings and agreements, whether written or oral, between Hruby and the Corporation relating to the subject matter of this Agreement.

12. Amendment or Modification, Waiver. No provision of this Agreement may be amended or waived unless such amendment or waiver is agreed to in writing signed by Hruby and by a duly authorized officer of the Corporation. No waiver by any party to this Agreement of any breach by another party of any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of a similar or dissimilar condition or provision at the same time, any prior time or any subsequent time.

13. Notices. Any notice to be given under this Agreement shall be in writing and delivered personally or sent by overnight courier or registered or certified mail, postage prepaid, return receipt requested, addressed to the party concerned at the address indicated below, or to such other address of which such party subsequently may give notice in writing:

If to Hruby: Dr. Dennis Hruby
4017 NW Christine
Corvallis, OR 97330-3263
Fax: 541-737-2440

If to the Corporation: SIGA PHARMACEUTICALS, INC.
666 Third Avenue
30th Floor
New York, NY 10017
Fax: 212-681-2953
Attention: David H. de Weese

with a copy to: Ehrenreich Eilenberg Krause & Zivian LLP
11 East 44th Street, 17th Floor
New York, NY 10017
Fax: 212-986-2399
Attention: Jeffrey D. Abbey, Esq.

Any notice delivered personally or by overnight courier shall be deemed given on the date delivered and any notice sent by registered or certified mail, postage prepaid, return receipt requested, shall be deemed given on the date mailed.

14. Severability. If any provision of this Agreement or the application of any such provision to any party or circumstances shall be determined by any court of competent jurisdiction to be invalid and unenforceable to any extent, the remainder of this Agreement or the application of such provision to such person or circumstances other than those to which it is so determined to be invalid and unenforceable shall not be affected, and each provision of this Agreement shall be validated and shall be enforced to the fullest extent permitted by law. If for any reason any provision of this Agreement containing restrictions is held to cover an

area or to be for a length of time that is unreasonable or in any other way is construed to be too broad or to any extent invalid, such provision shall not be determined to be entirely null, void and of no effect; instead, it is the intention and desire of both the Corporation and Hruby that, to the extent that the provision is or would be valid or enforceable under applicable law, any court of competent jurisdiction shall construe and interpret or reform this Agreement to provide for a restriction having the maximum enforceable area, time period and such other constraints or conditions (although not greater than those contained currently contained in this Agreement) as shall be valid and enforceable under the applicable law.

15. Survivorship. The respective rights and obligations of the parties hereunder shall survive any termination of this Agreement to the extent necessary to the intended preservation of such rights and obligations.

16. Headings. All descriptive headings of sections and paragraphs in this Agreement are intended solely for convenience of reference, and no provision of this Agreement is to be construed by reference to the heading of any section or paragraph.

17. Withholding Taxes. All salary, benefits, reimbursements and any other payments to Hruby under this Agreement shall be subject to all applicable payroll and withholding taxes and deductions required by any law, rule or regulation of and federal, state or local authority.

18. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together constitute one and same instrument.

19. Applicable Law: Jurisdiction. The laws of the State of New York shall govern the interpretation, validity and performance of the terms of this Agreement, without reference to rules relating to conflicts of law. Any suit, action or proceeding against Hruby with respect to this Agreement, or any judgment entered by any court in respect thereof, may be brought in any court of competent jurisdiction in the State of New York, as the Corporation may elect in its sole discretion, and Hruby hereby submits to the nonexclusive jurisdiction of such courts for the purpose of any such suit, action, proceeding or judgment.

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

SIGA PHARMACEUTICALS, INC.

By: /s/ David de Weese

David H. de Weese, President

/s/ Dr. Dennis E. Hruby

Dr. Dennis E. Hruby

EMPLOYMENT AGREEMENT

This Employment Agreement (this "Agreement"), effective as of February 1, 1998, between SIGA PHARMACEUTICALS, INC., a Delaware corporation (with its successors and assigns, referred to as the "Corporation"), and Dr. Walter Flamenbaum (referred to as "Flamenbaum").

Preliminary Statement

The Corporation desires to employ Flamenbaum, and Flamenbaum wishes to be employed by the Corporation, upon the terms and subject to the conditions set forth in this Agreement. The Corporation and Flamenbaum also wish to enter into the other agreements set forth in this Agreement, all of which are related to Flamenbaum's employment under this Agreement.

Agreement

Flamenbaum and the Corporation therefore agree as follows:

1. Employment for Term. The Corporation hereby employs Flamenbaum and Flamenbaum hereby accepts employment with the Corporation for the period beginning on the date of this Agreement and ending on January 31, 2000 (the "Initial Term"), or upon the earlier termination of the Term pursuant to Section 6. This Agreement shall be automatically renewed for additional one-year periods (the "Renewal Terms;" together with the Initial Term, the "Term") unless either party notifies the other in writing of its intention not to so renew this Agreement no less than 180 days prior to the expiration of the Initial Term or a Renewal Term. The termination of Flamenbaum's employment under this Agreement shall end the Term but shall not terminate Flamenbaum's or the Corporation's other agreements in this Agreement, except as otherwise provided herein.

2. Position and Duties. During the Term, Flamenbaum shall serve as the President and Chief Operating Officer of the Corporation. During the Term, Flamenbaum shall also hold such additional positions and titles as the Board of Directors of the Corporation (the "Board") may determine from time to time. During the Term, Flamenbaum shall devote his full business time and efforts to his duties as an employee of the Corporation.

3. Compensation.

(a) Base Salary. The Corporation shall pay Flamenbaum a base salary, beginning on the first day of the Term and ending on the last day of the Term, of not less than \$225,000 per annum, payable at least monthly on the Corporation's regular pay cycle for professional employees.

(b) Additional Payment. Flamenbaum shall receive a payment of \$75,000 in consideration for canceling his contract with Therics, Inc. Such payment will be made in twelve (12) equal monthly installments of \$6,250 commencing on the date hereof, so long as Flamenbaum's employment hereunder is not terminated (i) for Cause (as defined below) by the Corporation or (ii) due to Flamenbaum's resignation for reasons other than a material breach by the Corporation of its obligations under this Agreement or a material reduction of Flamenbaum's duties as provided in Section 6(c).

(c) Stock Options. Pursuant to the Corporation's stock option plan, the Corporation shall grant to Flamenbaum options to purchase 100,000 shares of the Corporation's Common Stock at an exercise price equal to closing bid price of the Common Stock of the Corporation on the date hereof. The options shall vest on a pro rata basis (20,000 shares each) on February 1, 1998, the first, second, third and fourth anniversaries of this Agreement. However, once any such options become vested, only fifty percent (50%) of such vested options will be immediately exercisable and the remaining fifty percent (50%) of such vested options will only be exercisable if the closing bid price of the Corporation's Common Stock, at any time after the date hereof, exceeds 200% of the exercise price of such options for twenty (20) consecutive business days. The options shall expire on the tenth anniversary of this Agreement.

(d) Other and Additional Compensation. The preceding sections establish the minimum compensation during the Term and shall not preclude the Board from awarding Flamenbaum a higher salary or any bonuses or stock options in the discretion of the Board during the Term at any time. The Company intends to adopt a performance based bonus plan for 1998 and subsequent years and Flamenbaum will be eligible to participate in such plan.

4. Employee Benefits. During the Term, Flamenbaum shall be entitled to the employee benefits, including vacation, 401(k) plan, health plan and other insurance benefits made available by the Corporation to any other employee of the Corporation.

5. Expenses. The Corporation shall reimburse Flamenbaum for actual out-of-pocket expenses incurred by him in the performance of his services for the Corporation upon the receipt of appropriate documentation of such expenses.

6. Termination.

(a) General. The Term shall end immediately upon Flamenbaum's death. The Term may also end for Cause or Disability, as defined in Section 7.

(b) Notice of Termination. Promptly after it ends the Term, the Corporation shall give Flamenbaum notice of the termination, including a statement of whether the termination was for Cause or Disability (as defined in Section 7(a) and 7(b) below). The

Corporation's failure to give notice under this Section 6(b) shall not, however, affect the validity of the Corporation's termination of the Term.

(c) Effective Termination by Corporation. If the Corporation materially reduces Flamenbaum's duties during the term, including replacing Flamenbaum as President and Chief Operating Officer, then, at his option, Flamenbaum may treat such reduction in duties as a termination of the Term without Cause by the Corporation.

7. Severance Benefits.

(a) "Cause" Defined. "Cause" means (i) willful malfeasance or willful misconduct by Flamenbaum in connection with his employment; (ii) Flamenbaum's gross negligence in performing any of his duties under this Agreement; (iii) Flamenbaum's conviction of, or entry of a plea of guilty to, or entry of a plea of nolo contendere with respect to, any crime other than a traffic violation or infraction which is a misdemeanor; (iv) Flamenbaum's material breach of any written policy applicable to all employees adopted by the Corporation which is not cured to the reasonable satisfaction of the Corporation within fifteen (15) business days after notice thereof; or (v) material breach by Flamenbaum of any of his agreements in this Agreement which is not cured to the reasonable satisfaction of the Corporation within fifteen (15) business days after notice thereof.

(b) Disability Defined. "Disability" shall mean Flamenbaum's incapacity due to physical or mental illness that results in his being unable to substantially perform his duties hereunder for six consecutive months (or for six months out of any nine month period). During a period of Disability, Flamenbaum shall continue to receive his base salary hereunder, provided that if the Corporation provides Flamenbaum with disability insurance coverage, payments of Flamenbaum's base salary shall be reduced by the amount of any disability insurance payments received by Flamenbaum due to such coverage. The Corporation shall give Flamenbaum written notice of termination which shall take effect sixty (60) days after the date it is sent to Flamenbaum unless Flamenbaum shall have returned to the performance of his duties hereunder during such sixty (60) day period (whereupon such notice shall become void).

(c) Termination. If the Corporation ends the Term for Cause or Disability, or if Flamenbaum resigns as an employee of the Corporation for reasons other than a material breach by the Corporation of its obligations under this Agreement or a material reduction of Flamenbaum's duties as provided in Section 6(c), or if Flamenbaum dies, then the Corporation shall have no obligation to pay Flamenbaum any amount, whether for salary, benefits, bonuses, or other compensation or expense reimbursements of any kind, accruing after the end of the Term, and such rights shall, except as otherwise required by law, be forfeited immediately upon the end of the Term, except that payments under Section 3(b) shall continue unless the Corporation ends the term for Cause or if Flamenbaum resigns for reasons other than a material breach by the Corporation of its obligations under this Agreement or a material reduction of his duties as provided in Section 6(c). If the Corporation ends the Term without Cause, then the Corporation will be obligated to continue to pay Flamenbaum's salary and all

other amounts due hereunder for the remainder of the Term. In addition, in the event of a change in the ownership of greater than fifty percent (50%) of the Corporation's outstanding voting stock or any transaction described in Section 9(b), Flamenbaum may elect to terminate this Agreement as if it were a termination by the Corporation without Cause, except that the Corporation shall not be obligated to pay Flamenbaum's salary for the remainder of the Term.

8. Confidentiality, Ownership, and Covenants.

(a) "Corporation Information" and "Inventions" Defined. "Corporation Information" means all information, knowledge or data of or pertaining to (i) the Corporation, its employees and all work undertaken on behalf of the Corporation, and (ii) any other person, firm, corporation or business organization with which the Corporation may do business during the Term, that is not in the public domain (and whether relating to methods, processes, techniques, discoveries, pricing, marketing or any other matters). "Inventions" collectively refers to any and all inventions, trade secrets, ideas, processes, formulas, source and object codes, data, programs, other works of authorship, know-how, improvements, research, discoveries, developments, designs, and techniques regarding any of the foregoing.

(b) Confidentiality. (i) Flamenbaum hereby recognizes that the value of all trade secrets and other proprietary data and all other information of the Corporation not in the public domain disclosed by the Corporation in the course of his employment with the Corporation may be attributable substantially to the fact that such confidential information is maintained by the Corporation in strict confidentiality and secrecy and would be unavailable to others without the expenditure of substantial time, effort or money. Flamenbaum, therefore, except as provided in the next two sentences, covenants and agrees that all Corporation Information shall be kept secret and confidential at all times during the Term and for the five (5) year period after the end of the Term and shall not be used or divulged by him outside the scope of his employment as contemplated by this Agreement, except as the Corporation may otherwise expressly authorize by action of the Board. In the event that Flamenbaum is requested in a judicial, administrative or governmental proceeding to disclose any of the Corporation Information, Flamenbaum will promptly so notify the Corporation so that the Corporation may seek a protective order or other appropriate remedy and/or waive compliance with this Agreement. If disclosure of any of the Corporation Information is required, Flamenbaum may furnish the material so required to be furnished, but Flamenbaum will furnish only that portion of the Corporation Information that legally is required.

(ii) Flamenbaum also hereby agrees to keep the terms of this Agreement confidential to the same extent that the Corporation maintains such confidentiality (except with regard to any disclosure by the Corporation required under applicable securities laws).

(c) Ownership of Inventions, Patents and Technology. Flamenbaum hereby assigns to the Corporation all of Flamenbaum's right (including patent rights, copyrights, trade secret rights, and all other rights throughout the world), title and interest in and to Inventions, whether or not patentable or registrable under copyright or similar statutes, made or conceived

or reduced to practice or learned by Flamenbaum, either alone or jointly with others, during the course of the performance of services for the Corporation. Flamenbaum shall also assign to, or as directed by, the Corporation, all of Flamenbaum's right, title and interest in and to any and all Inventions, the full title to which is required to be in the United States government by a contract between the Corporation and the United States government or any of its agencies. The Corporation shall have all right, title and interest in all research and work product produced by Flamenbaum as an employee of the Corporation, including, but not limited to, all research materials and lab books.

(d) Non-Competition Period Defined. "Non-Competition Period" means the period beginning at the end of the Term and ending one (1) year after the end of the Term.

(e) Covenants Regarding the Term and Non-Competition Period. Flamenbaum acknowledges and agrees that his services pursuant to this Agreement are unique and extraordinary; that the Corporation will be dependent upon Flamenbaum for the development of its products; and that he will have access to and control of confidential information of the Corporation. Flamenbaum further acknowledges that the business of the Corporation is international in scope and cannot be confined to any particular geographic area. For the foregoing reasons and to induce the Corporation to enter this Agreement, Flamenbaum covenants and agrees that, subject to Section 8(h), during the Term and the Non-Competition Period Flamenbaum shall not unless with written consent of the Corporation:

(i) engage in any business related to the research and development of the products or processes in which the Corporation is engaged in during the Term or in any other business conducted by the Corporation during the Term (collectively the "Prohibited Activity") in the World for his own account;

(ii) become interested in any individual, corporation, partnership or other business entity (a "Person") engaged in any Prohibited Activity in the World, directly or indirectly, as an individual, partner, shareholder, officer, director, principal, agent, employee, trustee, consultant or in any other relationship or capacity; provided, however, that Flamenbaum may own directly or indirectly, solely as an investment, securities of any Person which are traded on any national securities exchange if Flamenbaum (x) is not a controlling person of, or a member of a group which controls, such person or (y) does not, directly or indirectly, own 5% or more of any class of securities of such person; or

(iii) directly or indirectly hire, employ or retain any person who at any time during the Term was an employee of the Corporation or directly or indirectly solicit, entice, induce or encourage any such person to become employed by any other person.

(f) Remedies. Flamenbaum hereby acknowledges that the covenants and agreements contained in Section 8 are reasonable and valid in all respects and that the

Corporation is entering into this Agreement, inter alia, on such acknowledgment. If Flamenbaum breaches, or threatens to commit a breach, of any of the Restrictive Covenants, the Corporation shall have the following rights and remedies, each of which rights and remedies shall be independent of the other and severally enforceable, and all of which rights and remedies shall be in addition to, and not in lieu of, any other rights and remedies available to the Corporation under law or in equity: (i) the right and remedy to have the Restrictive Covenants specifically enforced by any court having equity jurisdiction, it being acknowledged and agreed that any such breach or threatened breach will cause irreparable injury to the Corporation and that money damages will not provide an adequate remedy to the Corporation; (ii) the right and remedy to require Flamenbaum to account for and pay over to the Corporation such damages as are recoverable at law as the result of any transactions constituting a breach of any of the Restrictive Covenants; (iii) if any court determines that any of the Restrictive Covenants, or any part thereof, is invalid or unenforceable, the remainder of the Restrictive Covenants shall not thereby be affected and shall be given full effect, without regard to the invalid portions; and (iv) if any court construes any of the Restrictive Covenants, or any part thereof, to be unenforceable because of the duration of such provision or the area covered thereby, such court shall have the power to reduce the duration or area of such provision and, in its reduced form, such provision shall then be enforceable and shall be enforced.

(g) Jurisdiction. The parties intend to and hereby confer jurisdiction to enforce the Restrictive Covenants upon the courts of any jurisdiction within the geographical scope of such Covenants. If the courts of any one or more such jurisdictions hold the Restrictive Covenants wholly unenforceable by reason of the breadth of such scope or otherwise, it is the intention of the parties that such determination not bar or in any way affect the Corporation's right to the relief provided above in the courts of any other jurisdiction, within the geographical scope of such Covenants, as to breaches of such Covenants in such other respective jurisdictions such Covenants as they relate to each jurisdiction being, for this purpose, severable into diverse and independent covenants.

(h) Flamenbaum's agreements and covenants under Section 8(e) shall automatically terminate if the Corporation ends the Term without Cause or Flamenbaum resigns due to a material breach by the Corporation of its obligations under this Agreement or a material reduction of Flamenbaum's duties as provided in Section 6(c).

9. Successors and Assigns.

(a) Flamenbaum. This Agreement is a personal contract, and the rights and interests that the Agreement accords to Flamenbaum may not be sold, transferred, assigned, pledged, encumbered, or hypothecated by him. All rights and benefits of Flamenbaum shall be for the sole personal benefit of Flamenbaum, and no other person shall acquire any right, title or interest under this Agreement by reason of any sale, assignment, transfer, claim or judgment or bankruptcy proceedings against Flamenbaum. Except as so provided, this

Agreement shall inure to the benefit of and be binding upon Flamenbaum and his personal representatives, distributees and legatees.

(b) The Corporation. This Agreement shall be binding upon the Corporation and inure to the benefit of the Corporation and of its successors and assigns, including (but not limited to) any corporation that may acquire all or substantially all of the Corporation's assets or business or into or with which the Corporation may be consolidated or merged. In the event that the Corporation sells all or substantially all of its assets, merges or consolidates, otherwise combines or affiliates with another business, dissolves and liquidates, or otherwise sells or disposes of substantially all of its assets and Flamenbaum does not elect to treat any such transaction as a termination by the Corporation without Cause pursuant to Section 7(c), then this Agreement shall continue in full force and effect. The Corporation's obligations under this Agreement shall cease, however, if the successor to, the purchaser or acquiror either of the Corporation or of all or substantially all of its assets, or the entity with which the Corporation has affiliated, shall assume in writing the Corporation's obligations under this Agreement (and deliver an executed copy of such assumption to Flamenbaum), in which case such successor or purchaser, but not the Corporation, shall thereafter be the only party obligated to perform the obligations that remain to be performed on the part of the Corporation under this Agreement.

10. Entire Agreement. This Agreement represents the entire agreement between the parties concerning Flamenbaum's employment with the Corporation and supersedes all prior negotiations, discussions, understandings and agreements, whether written or oral, between Flamenbaum and the Corporation relating to the subject matter of this Agreement.

11. Amendment or Modification, Waiver. No provision of this Agreement may be amended or waived unless such amendment or waiver is agreed to in writing signed by Flamenbaum and by a duly authorized officer of the Corporation. No waiver by any party to this Agreement of any breach by another party of any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of a similar or dissimilar condition or provision at the same time, any prior time or any subsequent time.

12. Notices. Any notice to be given under this Agreement shall be in writing and delivered personally or sent by overnight courier or registered or certified mail, postage prepaid, return receipt requested, addressed to the party concerned at the address indicated below, or to such other address of which such party subsequently may give notice in writing:

If to Flamenbaum: Dr. Walter Flamenbaum
 666 Third Avenue
 30th Floor
 New York, NY 10017
 Fax: 212-681-2953

If to the Corporation: SIGA PHARMACEUTICALS, INC.
666 Third Avenue
30th Floor
New York, NY 10017
Fax: 212-681-2953
Attention: David H. de Weese

with a copy to: Ehrenreich Eilenberg Krause & Zivian LLP
11 East 44th Street, 17th Floor
New York, NY 10017
Fax: 212-986-2399
Attention: Jeffrey D. Abbey, Esq.

Any notice delivered personally or by overnight courier shall be deemed given on the date delivered and any notice sent by registered or certified mail, postage prepaid, return receipt requested, shall be deemed given on the date mailed.

13. Severability. If any provision of this Agreement or the application of any such provision to any party or circumstances shall be determined by any court of competent jurisdiction to be invalid and unenforceable to any extent, the remainder of this Agreement or the application of such provision to such person or circumstances other than those to which it is so determined to be invalid and unenforceable shall not be affected, and each provision of this Agreement shall be validated and shall be enforced to the fullest extent permitted by law. If for any reason any provision of this Agreement containing restrictions is held to cover an area or to be for a length of time that is unreasonable or in any other way is construed to be too broad or to any extent invalid, such provision shall not be determined to be entirely null, void and of no effect; instead, it is the intention and desire of both the Corporation and Flamenbaum that, to the extent that the provision is or would be valid or enforceable under applicable law, any court of competent jurisdiction shall construe and interpret or reform this Agreement to provide for a restriction having the maximum enforceable area, time period and such other constraints or conditions (although not greater than those contained currently contained in this Agreement) as shall be valid and enforceable under the applicable law.

14. Survivorship. The respective rights and obligations of the parties hereunder shall survive any termination of this Agreement to the extent necessary to the intended preservation of such rights and obligations.

15. Headings. All descriptive headings of sections and paragraphs in this Agreement are intended solely for convenience of reference, and no provision of this Agreement is to be construed by reference to the heading of any section or paragraph.

16. Withholding Taxes. All salary, benefits, reimbursements and any other payments to Flamenbaum under this Agreement shall be subject to all applicable payroll and

withholding taxes and deductions required by any law, rule or regulation of and federal, state or local authority.

17. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together constitute one and same instrument.

18. Applicable Law; Arbitration. The validity, interpretation and enforcement of this Agreement and any amendments or modifications hereto shall be governed by the laws of the State of New York, as applied to a contract executed within and to be performed in such State. The parties agree that any disputes shall be definitively resolved by binding arbitration before the American Arbitration Association in New York, New York and consent to the jurisdiction to the federal courts of the Southern District of New York or, if there shall be no jurisdiction, to the state courts located in New York County, New York, to enforce any arbitration award rendered with respect thereto. Each party shall choose one arbitrator and the two arbitrators shall choose a third arbitrator. All costs and fees related to such arbitration (and judicial enforcement proceedings, if any) shall be borne by the unsuccessful party.

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

SIGA PHARMACEUTICALS, INC.

By: /s/ David de Weese

David H. de Weese, President

/s/ Dr. Walter Flamenbaum

Dr. Walter Flamenbaum

EMPLOYMENT AGREEMENT

This Employment Agreement (this "Agreement"), effective as of April 1] 1998, between SIGA PHARMACEUTICALS, INC., a Delaware corporation (with its successors and assigns, referred to as the "Corporation"), and Thomas Konatich (referred to as "Konatich").

Preliminary Statement

The Corporation desires to employ Konatich, and Konatich wishes to be employed by the Corporation, upon the terms and subject to the conditions set forth in this Agreement. The Corporation and Konatich also wish to enter into the other agreements set forth in this Agreement, all of which are related to Konatich's employment under this Agreement.

Agreement

Konatich and the Corporation therefore agree as follows:

1. Employment for Term. The Corporation hereby employs Konatich and Konatich hereby accepts employment with the Corporation for the period beginning on the date of this Agreement and ending on [April 1], 2000 (the "Initial Term), or upon the earlier termination of the Term pursuant to Section 6. This Agreement shall be automatically renewed for additional one-year periods (the "Renewal Terms;" together with the Initial Term, the "Term") unless either party notifies the other in writing of its intention not to so renew this Agreement no less than 60 days prior to the expiration of the Initial Term or a Renewal Term. The termination of Konatich's employment under this Agreement shall end the Term but shall not terminate Konatich's or the Corporation's other agreements in this Agreement, except as otherwise provided herein.

2. Position and Duties. During the Term, Konatich shall serve as the Secretary and Chief Financial Officer of the Corporation. During the Term, Konatich shall also hold such additional positions and titles as the Board of Directors of the Corporation (the "Board") may determine from time to time. During the Term, Konatich shall devote his full time and efforts to his duties as an employee of the Corporation.

3. Compensation.

(a) Base Salary. The Corporation shall pay Konatich a base salary, beginning on the first day of the Term and ending on the last day of the Term, of not less than \$170,000 per annum, payable at least monthly on the Corporation's regular pay cycle for professional employees.

(b) Stock Options. Pursuant to the Corporation's stock option plan, the Corporation shall grant to Konatich options to purchase 95,000 shares of the Corporation's Common Stock at an exercise price equal to closing bid price of the Common Stock of the Corporation on the date hereof. The options shall vest on a pro rata basis (23,750 shares each) on the first, second, third and fourth anniversaries of this Agreement. However, once any such options become vested, only fifty percent (50%) of such vested options will be immediately exercisable and the remaining fifty percent (50%) of such vested options will only be exercisable if the closing bid price of the Corporation's Common Stock, at any time after the date hereof, exceeds 200% of the exercise price of such options for twenty (20) consecutive business days. The options shall expire on the tenth anniversary of this Agreement.

(c) Other and Additional Compensation. The preceding sections establish the minimum compensation during the Term and shall not preclude the Board from awarding Konatich a higher salary or any bonuses or stock options in the discretion of the Board during the Term at any time. The Company intends to adopt a performance based bonus plan for 1998 and subsequent years and Konatich will be eligible to participate in such plan.

4. Employee Benefits. During the Term, Konatich shall be entitled to the employee benefits, including vacation, 401(k) plan, health plan and other insurance benefits made available by the Corporation to any other employee of the Corporation.

5. Expenses. The Corporation shall reimburse Konatich for actual out-of-pocket expenses incurred by him in the performance of his services for the Corporation upon the receipt of appropriate documentation of such expenses.

6. Termination.

(a) General. The Term shall end immediately upon Konatich's death. The Term may also end for Cause or Disability, as defined in Section 7.

(b) Notice of Termination. Promptly after it ends the Term, the Corporation shall give Konatich notice of the termination, including a statement of whether the termination was for Cause or Disability (as defined in Section 7(a) and 7(b) below). The Corporation's failure to give notice under this Section 6(b) shall not, however, affect the validity of the Corporation's termination of the Term.

(c) Effective Termination by Corporation. If the Corporation

materially reduces Konatich's duties during the term, including replacing Konatich as Chief Financial Officer, then, at his option, Konatich may treat such reduction in duties as a termination of the Term without Cause by the Corporation.

7. Severance Benefits.

(a) "Cause" Defined. "Cause" means (i) willful malfeasance or willful misconduct by Konatich in connection with his employment; (ii) Konatich's gross negligence in performing any of his duties under this Agreement; (iii) Konatich's conviction of, or entry of a plea of guilty to, or entry of a plea of nolo contendere with respect to, any crime other than a traffic violation or infraction which is a misdemeanor; (iv) Konatich's material breach of any written policy applicable to all employees adopted by the Corporation which is not cured to the reasonable satisfaction of the Corporation within fifteen (15) business days after notice thereof; or (v) material breach by Konatich of any of his agreements in this Agreement which is not cured to the reasonable satisfaction of the Corporation within fifteen (15) business days after notice thereof.

(b) Disability Defined. "Disability" shall mean Konatich's incapacity due to physical or mental illness that results in his being unable to substantially perform his duties hereunder for six consecutive months (or for six months out of any nine month period). During a period of Disability, Konatich shall continue to receive his base salary hereunder, provided that if the Corporation provides Konatich with disability insurance coverage, payments of Konatich's base salary shall be reduced by the amount of any disability insurance payments received by Konatich due to such coverage. The Corporation shall give Konatich written notice of termination which shall take effect sixty (60) days after the date it is sent to Konatich unless Konatich shall have returned to the performance of his duties hereunder during such sixty (60) day period (whereupon such notice shall become void).

(c) Termination. If the Corporation ends the Term for Cause or Disability, or if Konatich resigns as an employee of the Corporation for reasons other than a material breach by the Corporation of its obligations under this Agreement or a material reduction of Konatich's duties as provided in Section 6(c), or if Konatich dies, then the Corporation shall have no obligation to pay Konatich any amount, whether for salary, benefits, bonuses, or other compensation or expense reimbursements of any kind, accruing after the end of the Term, and such rights shall, except as otherwise required by law, be forfeited immediately upon the end of the Term. If the Corporation ends the Term without Cause, then the Corporation will be obligated to continue to pay Konatich's salary for the remainder of the Term. In addition, in the event of a change in the ownership of greater than fifty percent (50%) of the Corporation's outstanding voting stock or any transaction described in Section 9(b), Konatich may elect to terminate this Agreement as if it were a termination by the Corporation without Cause, except that the Corporation shall not be obligated to pay Konatich's salary for the remainder of the Term.

8. Confidentiality, Ownership, and Covenants.

(a) "Corporation Information" and "Inventions" Defined. "Corporation Information" means all information, knowledge or data of or pertaining to (i) the Corporation, its employees and all work undertaken on behalf of the Corporation, and (ii) any other person, firm, corporation or business organization with which the Corporation may do business during the Term, that is not in the public domain (and whether relating to methods, processes,

techniques, discoveries, pricing, marketing or any other matters). "Inventions" collectively refers to any and all inventions, trade secrets, ideas, processes, formulas, source and object codes, data, programs, other works of authorship, know-how, improvements, research, discoveries, developments, designs, and techniques regarding any of the foregoing.

(b) Confidentiality. (i) Konatich hereby recognizes that the value of all trade secrets and other proprietary data and all other information of the Corporation not in the public domain disclosed by the Corporation in the course of his employment with the Corporation may be attributable substantially to the fact that such confidential information is maintained by the Corporation in strict confidentiality and secrecy and would be unavailable to others without the expenditure of substantial time, effort or money. Konatich, therefore, except as provided in the next two sentences, covenants and agrees that all Corporation Information shall be kept secret and confidential at all times during the Term and for the five (5) year period after the end of the Term and shall not be used or divulged by him outside the scope of his employment as contemplated by this Agreement, except as the Corporation may otherwise expressly authorize by action of the Board. In the event that Konatich is requested in a judicial, administrative or governmental proceeding to disclose any of the Corporation Information, Konatich will promptly so notify the Corporation so that the Corporation may seek a protective order or other appropriate remedy and/or waive compliance with this Agreement. If disclosure of any of the Corporation Information is required, Konatich may furnish the material so required to be furnished, but Konatich will furnish only that portion of the Corporation Information that legally is required.

(ii) Konatich also hereby agrees to keep the terms of this Agreement confidential to the same extent that the Corporation maintains such confidentiality (except with regard to any disclosure by the Corporation required under applicable securities laws).

(c) Ownership of Inventions, Patents and Technology. Konatich hereby assigns to the Corporation all of Konatich's right (including patent rights, copyrights, trade secret rights, and all other rights throughout the world), title and interest in and to Inventions, whether or not patentable or registrable under copyright or similar statutes, made or conceived or reduced to practice or learned by Konatich, either alone or jointly with others, during the course of the performance of services for the Corporation. Konatich shall also assign to, or as directed by, the Corporation, all of Konatich's right, title and interest in and to any and all Inventions, the full title to which is required to be in the United States government by a contract between the Corporation and the United States government or any of its agencies. The Corporation shall have all right, title and interest in all research and work product produced by Konatich as an employee of the Corporation, including, but not limited to, all research materials and lab books.

(d) Non-Competition Period Defined. "Non-Competition Period" means the period beginning at the end of the Term and ending one (1) year after the end of the Term.

(e) Covenants Regarding the Term and Non-Competition Period. Konatich acknowledges and agrees that his services pursuant to this Agreement are unique and extraordinary; that the Corporation will be dependent upon Konatich for the development of its products; and that he will have access to and control of confidential information of the Corporation. Konatich further acknowledges that the business of the Corporation is international in scope and cannot be confined to any particular geographic area. For the foregoing reasons and to induce the Corporation to enter this Agreement, Konatich covenants and agrees that, subject to Section 8(h), during the Term and the Non-Competition Period Konatich shall not unless with written consent of the Corporation:

(i) engage in any business related to the research and development of the products or processes in which the Corporation is engaged in during the Term or in any other business conducted by the Corporation during the Term (collectively the "Prohibited Activity") in the World for his own account;

(ii) become interested in any individual, corporation, partnership or other business entity (a "Person") engaged in any Prohibited Activity in the World, directly or indirectly, as an individual, partner, shareholder, officer, director, principal, agent, employee, trustee, consultant or in any other relationship or capacity; provided, however, that Konatich may own directly or indirectly, solely as an investment, securities of any Person which are traded on any national securities exchange if Konatich (x) is not a controlling person of, or a member of a group which controls, such person or (y) does not, directly or indirectly, own 5% or more of any class of securities of such person;

(iii) directly or indirectly hire, engage or retain any person which at any time during the Term or Non-Competition Period was a supplier, client or customer of the Corporation, or directly or indirectly solicit, entice or induce any such person to become, a supplier, client or customer of any other person engaged in any Prohibited Activity; or

(iv) directly or indirectly hire, employ or retain any person who at any time during the Term was an employee of the Corporation or directly or indirectly solicit, entice, induce or encourage any such person to become employed by any other person.

(f) Remedies. Konatich hereby acknowledges that the covenants and agreements contained in Section 8 are reasonable and valid in all respects and that the Corporation is entering into this Agreement, inter alia, on such acknowledgment. If Konatich breaches, or threatens to commit a breach, of any of the Restrictive Covenants, the Corporation shall have the following rights and remedies, each of which rights and remedies shall be independent of the other and severally enforceable, and all of which rights and remedies shall be in addition to, and not in lieu of, any other rights and remedies available to the Corporation under law or in equity: (i) the right and remedy to have the Restrictive

Covenants specifically enforced by any court having equity jurisdiction, it being acknowledged and agreed that any such breach or threatened breach will cause irreparable injury to the Corporation and that money damages will not provide an adequate remedy to the Corporation; (ii) the right and remedy to require Konatich to account for and pay over to the Corporation such damages as are recoverable at law as the result of any transactions constituting a breach of any of the Restrictive Covenants; (iii) if any court determines that any of the Restrictive Covenants, or any part thereof, is invalid or unenforceable, the remainder of the Restrictive Covenants shall not thereby be affected and shall be given full effect, without regard to the invalid portions; and (iv) if any court construes any of the Restrictive Covenants, or any part thereof, to be unenforceable because of the duration of such provision or the area covered thereby, such court shall have the power to reduce the duration or area of such provision and, in its reduced form, such provision shall then be enforceable and shall be enforced.

(g) Jurisdiction. The parties intend to and hereby confer jurisdiction to enforce the Restrictive Covenants upon the courts of any jurisdiction within the geographical scope of such Covenants. If the courts of any one or more such jurisdictions hold the Restrictive Covenants wholly unenforceable by reason of the breadth of such scope or otherwise, it is the intention of the parties that such determination not bar or in any way affect the Corporation's right to the relief provided above in the courts of any other jurisdiction, within the geographical scope of such Covenants, as to breaches of such Covenants in such other respective jurisdictions such Covenants as they relate to each jurisdiction being, for this purpose, severable into diverse and independent covenants.

(h) Konatich's agreements and covenants under Section 8(e) shall automatically terminate if the Corporation ends the Term without Cause or Konatich resigns due to a material breach by the Corporation of its obligations under this Agreement or a material reduction of Konatich's duties as provided in Section 6(c).

9. Successors and Assigns.

(a) Konatich. This Agreement is a personal contract, and the rights and interests that the Agreement accords to Konatich may not be sold, transferred, assigned, pledged, encumbered, or hypothecated by him. All rights and benefits of Konatich shall be for the sole personal benefit of Konatich, and no other person shall acquire any right, title or interest under this Agreement by reason of any sale, assignment, transfer, claim or judgment or bankruptcy proceedings against Konatich. Except as so provided, this Agreement shall inure to the benefit of and be binding upon Konatich and his personal representatives, distributees and legatees.

(b) The Corporation. This Agreement shall be binding upon the Corporation and inure to the benefit of the Corporation and of its successors and assigns, including (but not limited to) any corporation that may acquire all or substantially all of the Corporation's assets or business or into or with which the Corporation may be consolidated or merged. In the event that the Corporation sells all or substantially all of its assets, merges or

consolidates, otherwise combines or affiliates with another business, dissolves and liquidates, or otherwise sells or disposes of substantially all of its assets and Konatich does not elect to treat any such transaction as a termination by the Corporation without Cause pursuant to Section 7(c), then this Agreement shall continue in full force and effect. The Corporation's obligations under this Agreement shall cease, however, if the successor to, the purchaser or acquiror either of the Corporation or of all or substantially all of its assets, or the entity with which the Corporation has affiliated, shall assume in writing the Corporation's obligations under this Agreement (and deliver an executed copy of such assumption to Konatich), in which case such successor or purchaser, but not the Corporation, shall thereafter be the only party obligated to perform the obligations that remain to be performed on the part of the Corporation under this Agreement.

10. Entire Agreement. This Agreement represents the entire agreement between the parties concerning Konatich's employment with the Corporation and supersedes all prior negotiations, discussions, understandings and agreements, whether written or oral, between Konatich and the Corporation relating to the subject matter of this Agreement.

11. Amendment or Modification, Waiver. No provision of this Agreement may be amended or waived unless such amendment or waiver is agreed to in writing signed by Konatich and by a duly authorized officer of the Corporation. No waiver by any party to this Agreement of any breach by another party of any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of a similar or dissimilar condition or provision at the same time, any prior time or any subsequent time.

12. Notices. Any notice to be given under this Agreement shall be in writing and delivered personally or sent by overnight courier or registered or certified mail, postage prepaid, return receipt requested, addressed to the party concerned at the address indicated below, or to such other address of which such party subsequently may give notice in writing:

If to Konatich: Thomas Konatich
18 Plymouth Road
Port Washington, NY 11050

If to the Corporation: SIGA PHARMACEUTICALS, INC.
666 Third Avenue
30th Floor
New York, NY 10017
Fax: 212-681-2953
Attention: David H. de Weese

with a copy to: Ehrenreich Eilenberg Krause & Zivian LLP
11 East 44th Street, 17th Floor
New York, NY 10017
Fax: 212-986-2399
Attention: Jeffrey D. Abbey, Esq.

Any notice delivered personally or by overnight courier shall be deemed given on the date delivered and any notice sent by registered or certified mail, postage prepaid, return receipt requested, shall be deemed given on the date mailed.

13. Severability. If any provision of this Agreement or the application of any such provision to any party or circumstances shall be determined by any court of competent jurisdiction to be invalid and unenforceable to any extent, the remainder of this Agreement or the application of such provision to such person or circumstances other than those to which it is so determined to be invalid and unenforceable shall not be affected, and each provision of this Agreement shall be validated and shall be enforced to the fullest extent permitted by law. If for any reason any provision of this Agreement containing restrictions is held to cover an area or to be for a length of time that is unreasonable or in any other way is construed to be too broad or to any extent invalid, such provision shall not be determined to be entirely null, void and of no effect; instead, it is the intention and desire of both the Corporation and Konatich that, to the extent that the provision is or would be valid or enforceable under applicable law, any court of competent jurisdiction shall construe and interpret or reform this Agreement to provide for a restriction having the maximum enforceable area, time period and such other constraints or conditions (although not greater than those contained currently contained in this Agreement) as shall be valid and enforceable under the applicable law.

14. Survivorship. The respective rights and obligations of the parties hereunder shall survive any termination of this Agreement to the extent necessary to the intended preservation of such rights and obligations.

15. Headings. All descriptive headings of sections and paragraphs in this Agreement are intended solely for convenience of reference, and no provision of this Agreement is to be construed by reference to the heading of any section or paragraph.

16. Withholding Taxes. All salary, benefits, reimbursements and any other payments to Konatich under this Agreement shall be subject to all applicable payroll and withholding taxes and deductions required by any law, rule or regulation of and federal, state or local authority.

17. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together constitute one and same instrument.

18. Applicable Law; Arbitration. The validity, interpretation and enforcement of this Agreement and any amendments or modifications hereto shall be governed by the laws of the State of New York, as applied to a contract executed within and to be performed in such State. The parties agree that any disputes shall be definitively resolved by binding arbitration before the American Arbitration Association in New York, New York and consent to the jurisdiction to the federal courts of the Southern District of New York or, if there shall be no jurisdiction, to the state courts located in New York County, New York, to enforce any arbitration award rendered with respect thereto. Each party shall choose one arbitrator and the two arbitrators shall choose a third arbitrator. All costs and fees related to such arbitration (and judicial enforcement proceedings, if any) shall be borne by the unsuccessful party.

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

SIGA PHARMACEUTICALS, INC.

By: /s/ David de Weese

David H. de Weese, President

/s/ Thomas N. Konatich

Thomas N. Konatich

CONSULTING AGREEMENT

CONSULTING AGREEMENT ("Agreement"), dated as of January 15, 1998, between SIGA Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and Prism Ventures LLC (the "Consultant").

WHEREAS, the Company desires to retain Consultant, and Consultant desires to be retained 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. Duties. The Company hereby retains the Consultant to provide business development, operations and other advisory services, including services related to in-licensing, out-licensing, merger and acquisition activity, financings, strategic alliances and other corporate transactions, and the Consultant hereby accepts such retention and shall perform for the Company the duties described herein as may be reasonably determined by the Board of Directors of the Company, faithfully and to the best of its ability.

2. Term. The Consultant's retention hereunder shall be for a term of three years (the "Initial Term") commencing January 15, 1998, and shall be automatically renewed for additional one-year periods (each period a "Renewal Term") unless either party notifies the other in writing of its intention not to so renew this Agreement no less than 90 days prior to the expiration of the Initial Term or any Renewal Term.

3. Compensation and Expenses.

(a) In consideration for Consultant's performing the Consulting Services for the Company, the Company shall pay to Consultant a consulting fee of \$150,000 per year, payable quarterly in advance, subject to deduction for any then outstanding amounts owed by Consultant to the Company, and 16,667 stock option per year, payable quarterly in advance, and exercisable at the fair market value on the date of the grant.

(b) In addition to the consulting fee, Consultant may also be paid bonuses, success fees and other compensation, including stock options, as may be determined by the Board of Directors of the Company for work performed by Consultant in connection with merger and acquisition activity, financings, strategic alliances and other corporate transactions.

(c) The Company will reimburse Consultant for actual out-of-pocket expenses incurred in connection with the performance of the Consulting Services, provided that Consultant

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submits receipts or other expense records to the Company in accordance with the Company's general reimbursement policy then in effect.

4. Successors and Assigns. This Agreement is binding upon and inures to the benefit of the Company and its affiliates, successors and assigns and is binding upon and inures to the benefit of Consultant and its successors and assigns; provided that in no event shall Consultant's obligations to perform the Consulting Services be delegated or transferred by Consultant without the prior written consent of the Company.

5. Termination.

(a) This Agreement may only be terminated by the Company for Cause.

(b) The Company shall have "Cause" to terminate this Agreement upon any material breach by Consultant of any provision of this Agreement.

(c) In the event of a termination of this Agreement for Cause, Consultant shall receive consulting fees only to the Date of Termination. If the Company shall terminate Consultant other than for Cause, the Company shall be obligated to pay Consultant the full amount of compensation due Consultant hereunder through the completion of the term.

6. Confidentiality.

Consultant hereby recognizes that the value of all trade secrets and other proprietary data and all other information of the Company not in the public domain ("Confidential Information") disclosed by the Company in the course of performing Consulting Services with the Company is attributable substantially to the fact that such Confidential Information is maintained by the Company in the strict confidentiality and secrecy and would be unavailable to others without the expenditure of substantial time, effort or money. Consultant, therefore, covenants and agrees to keep strictly secret and confidential the Confidential Information of the Company in accordance with the following provisions of this Section 6. Consultant covenants and agrees to safeguard the Confidential Information of the Company disclosed to or otherwise acquired by Consultant in the course of performing Consulting Services and to prevent the disclosure or other dissemination thereof to any third party, or the use thereof by any competitor. In implementation of the foregoing, Consultant shall not disclose any of the Confidential Information of the Company to any employee or consultant except those for whom disclosure is necessary for the effective performance of their responsibilities as employees or consultants and, in each case, only to the extent required for such effective performance of responsibilities by

employees or consultants to whom such disclosure is made pursuant to this Section 6. The obligations undertaken by Consultant pursuant to this Section 6 shall not apply to any Confidential Information which hereafter shall become published or otherwise generally available to the public, except in consequence of a willful or negligent act or admission by Consultant, or its employees or consultants, in contravention of the obligations hereinabove set forth in this Section 6, and such obligations shall, as so limited, survive expiration or termination of this Agreement.

7. Representations and Warranties. Consultant represents and warrants that it is not under any obligation, contractual or otherwise to any person or entity which would prevent it from entering into this Agreement or prevent, impede or hinder it from fully faithfully performing any of its duties and services hereunder.

8. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

9. Severability. If in any jurisdiction, any provision of this Agreement or its application to any party or circumstance is restricted, prohibited or unenforceable, such provision shall, as to such jurisdiction, be ineffective only to the extent of such restriction, prohibition or unenforceability, without invalidating the remaining provisions hereof and without affecting the validity or enforceability of such provision in any other jurisdiction or its application to other parties or circumstances. In addition, if any one or more of the provisions contained in this Agreement shall for any reason in any jurisdiction be held to be excessively broad as to time, duration, geographical scope, activity or subject, it shall be construed, by limiting and reduction it, so as to be enforceable to the extent compatible with the applicable law of such jurisdiction as it shall then appear.

IN WITNESS WHEREOF, this Consulting Agreement has been executed by the Company and Consultant as of the date first written above.

SIGA PHARMACEUTICALS, INC.

By: /s/ David de Weese

Authorized Officer

PRISM VENTURES LLC

By: /s/ Joshua Schein

Authorized Officer

STATEMENT RE: COMPUTATION OF PER SHARE EARNINGS

SIGA Pharmaceuticals, Inc.
Computation of Per Share Earnings

1996 - - - - -	Shares -----	Days Outstanding -----	Weighted Average Shares Outstanding -----
Opening balance - January 1, 1996	2,079,170	365	2,079,170
Shares issued in March 1996 private placement	1,038,008	308	875,908
Shares issued in September 1996 private placement	250,004	96	65,912 -----
Weighted average shares outstanding used for basic and diluted loss per share			3,020,990
Net loss for the period			\$ (2,268,176) -----
Basic and diluted loss per share			\$ (0.75) =====
1997			
Opening balance - January 1, 1997	3,367,182	365	3,367,182
Shares issued in September 1997 initial public offering	2,500,000	112	771,350
Shares issued in October 1997 initial public offering over-allotment	375,000	76	78,512 -----
Weighted average shares outstanding used for basic and diluted loss per share			4,217,044
Net loss for the period			\$ (2,194,638) -----
Basic and diluted loss per share			\$ (0.52) =====

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	JAN-01-1997		
	DEC-31-1997		
		10,674,104	
		0	
		150,000	
		0	
		0	
	10,879,486		
		46,275	
	(16,461)		
	11,052,141		
	465,608		
		0	
	0		
		0	
		624	
		10,586,533	
11,052,141			
		0	
	675,000		
		0	
		0	
	2,857,260		
	0		
	12,378		
	(2,194,638)		
		0	
(2,194,638)			
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	(2,194,638)		
	(0.52)		
	(0.52)		