

Protalix BioTherapeutics, Inc.

Form 424B5

October 05, 2007

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-144801

The information in this preliminary prospectus is not complete and may be changed. Neither we nor any securityholder may sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY
PROSPECTUS
SUPPLEMENT

Subject to October
completion 3, 2007

(To
Prospectus
dated
September 26, 2007)

4,968,944 Shares

Common Stock

We are offering 3,726,708 shares of common stock and the selling securityholders identified in this prospectus supplement are offering 1,242,236 shares of common stock. We will not receive any proceeds from the sale of shares of common stock by the selling securityholders.

Our common stock is traded on the American Stock Exchange, or the AMEX, under the symbol "PLX." On October 2, 2007, the last reported sales price for our common stock on the AMEX was \$35.90 per share.

Investing in our common stock involves a high degree of risk. You should read and consider carefully the risk factors beginning on page S-5 of this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to us	\$	\$
Proceeds, before expenses, to the selling securityholders	\$	\$

The underwriters may also purchase up to an additional 745,342 shares of common stock from the selling securityholders at the public offering price, less the underwriting discounts and commissions payable by the selling securityholders to cover over-allotments, if any, within 30 days from the date of this prospectus supplement. If the

underwriters exercise their over-allotment option in full, the total underwriting discounts and commissions will be \$ _____, the total proceeds to the selling securityholders will be \$ _____.

The underwriters are offering the shares of common stock as set forth under “Underwriting.” Delivery of the shares of common stock will be made on or about _____, 2007.

Sole Book-Running Manager

UBS Investment Bank

CIBC World Markets

The date of this Prospectus Supplement is _____, 2007.

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and any free writing prospectus prepared by or on our behalf. We have not, and the underwriters have not, authorized anyone to provide you with information different from that contained in this prospectus supplement and the accompanying prospectus. We are not, and the underwriters are not, making an offer to sell or seeking offers to buy these securities in any jurisdiction where the offer or sale of these securities is not permitted. The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of the date of this prospectus supplement, regardless of the time of delivery of this prospectus supplement or any sale of our common stock.

We obtained most of the statistical data, market data and other industry data and forecasts used throughout this prospectus supplement from publicly available information. We have not sought the consent of the sources to refer to their reports in this prospectus supplement.

TABLE OF CONTENTS

Prospectus Supplement

Forward-looking statements	S-ii
Prospectus summary	S-1
Risk factors	S-5
Use of proceeds	S-24
Selected financial data	S-25
Management’s discussion and analysis of financial condition and results of operations	S-27
Business	S-38
Management	S-62
Our principal and selling securityholders	S-66
Capitalization	S-70
Dilution	S-71
Description of capital stock	S-72
Certain United States federal tax considerations to non-United States holders	S-73

Underwriting	S-76
Legal matters	S-82
Experts	S-82
Incorporation by reference	S-82
Where you can find more information	S-83
Disclosure of Commission position on indemnification for Securities Act liabilities	S-83

Prospectus Dated September 26, 2007

Forward-looking statements	ii
About this prospectus	1
Summary of business	2
Risk factors	3
Use of proceeds	4
Selling securityholders	5
Plan of distribution	8
Legal matters	10
Experts	10
Incorporation by reference	10
Where you can find more information	11
Disclosure of Commission position on indemnification for Securities Act liabilities	11

This prospectus supplement and the accompanying prospectus contain our trademarks and trademarks of our affiliates, and may contain trademarks, trade names and service marks of other parties. Unless we indicate otherwise, references in this prospectus supplement and the accompanying prospectus to “our company,” “we,” “our,” and “us” refer to Protalix BioTherapeutics, Inc. and our wholly owned subsidiary, Protalix Ltd., an Israeli corporation.

S-i

Forward-looking statements

The statements set forth and incorporated by reference in this prospectus supplement and the accompanying prospectus, which are not historical, constitute “forward looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding our expectations, beliefs, intentions or strategies for the future. When used in this prospectus supplement and the accompanying prospectus, the terms “anticipate,” “believe,” “estimate,” “expect” and “intend” and words of similar import, as they relate to us, our subsidiary or our management, are intended to identify forward-looking statements. We intend that all forward-looking statements be subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are only predictions and reflect our views as of the date they are made with respect to future events and financial performance and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events, except as may be required under applicable law. Forward-looking statements are subject to many risks and uncertainties that could cause our actual results to differ materially from any future results expressed or implied by the forward-looking statements.

Examples of the risks and uncertainties include, but are not limited to, the following:

the inherent risks and uncertainties in developing drug platforms and products of the type we are developing;

delays in our preparation and filing of applications for regulatory approval;

delays in the approval or potential rejection of any applications we file with the United States Food and Drug Administration, or other regulatory authorities;

any lack of progress of our research and development (including the results of clinical trials we are conducting);

obtaining on a timely basis sufficient patient enrollment in our clinical trials;

the impact of development of competing therapies and/or technologies by other companies;

our ability to obtain additional financing required to fund our research programs;

the risk that we will not be able to develop a successful sales and marketing organization in a timely manner, if at all;

our ability to establish and maintain strategic license, collaboration and distribution arrangements and to manage our relationships with collaborators, distributors and partners;

potential product liability risks and risks of securing adequate levels of product liability and clinical trial insurance coverage;

the availability of reimbursement to patients from health care payors for procedures in which our products are used;

the possibility of infringing a third party's patents or other intellectual property rights;

the uncertainty of obtaining patents covering our products and processes and successfully enforcing them against third parties; and

the possible disruption of our operations due to terrorist activities and armed conflict, including as a result of the disruption of the operations of regulatory authorities, our subsidiary, our manufacturing facilities and our customers, suppliers, distributors, collaborative partners, licensees and clinical trial sites.

S-ii

Forward-looking statements

In addition, companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials, even after obtaining promising earlier trial results. These and other risks and uncertainties are detailed under the heading "Risk Factors" herein and in our filings with the Securities and Exchange Commission incorporated by reference in this prospectus supplement and the accompanying prospectus. We undertake no obligation to update, and we do not have a policy of updating or revising, these forward-looking statements.

S-iii

Prospectus summary

This summary highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus and the documents incorporated therein by reference. Because this is a summary, it does not contain all of the information that you should consider before buying our common stock in this offering. You should read the entire prospectus supplement and the accompanying prospectus carefully, including the information under the heading "Risk factors" beginning on page S-5 and the information incorporated by reference in this prospectus supplement and the accompanying prospectus. Except as otherwise stated, all information in this prospectus supplement assumes that the underwriters in this offering do not exercise their over-allotment option.

Our Business

We are a biopharmaceutical company focused on the development and commercialization of recombinant therapeutic proteins based on our proprietary ProCellEx™ protein expression system. Using our ProCellEx system we are developing a pipeline of proprietary recombinant therapeutic proteins based on our plant cell-based expression technology that target large, established pharmaceutical markets and that rely upon known biological mechanisms of action. Our initial commercial focus has been on complex therapeutic proteins, including proteins for the treatment of genetic disorders, such as Gaucher disease and Fabry disease, and female infertility disorders. We believe our ProCellEx protein expression system will enable us to develop proprietary recombinant proteins that are therapeutically equivalent or superior to existing recombinant proteins currently marketed for the same indications. Because we are targeting biologically equivalent versions of highly active, well-tolerated and commercially successful

therapeutic proteins, we believe our development process is associated with relatively less risk compared to other biopharmaceutical development processes for novel therapeutic proteins.

Our Lead Product Candidate, prGCD

Our lead product development candidate is prGCD for the treatment of Gaucher disease, which we are developing using our ProCellEx protein expression system. In July 2007, we reached an agreement with the United States Food and Drug Administration, or the FDA, on the final design of our pivotal phase III clinical trial of prGCD, through the FDA's special protocol assessment (SPA) process. In the third quarter of 2007, we initiated enrollment and treatment of patients in our phase III clinical trial of prGCD. prGCD is our proprietary recombinant form of Glucocerebrosidase (GCD), an enzyme naturally found in human cells that is mutated or deficient in patients with Gaucher disease. The current standard of care for Gaucher disease is enzyme replacement therapy, a medical treatment in which GCD is replaced for patients in whom the enzyme is lacking or dysfunctional. Although Gaucher disease is a relatively rare disease, it represents a large commercial market due to the severity of the symptoms and the chronic nature of the disease. The annual worldwide sales of Cerezyme®, an enzyme replacement therapy produced by Genzyme Corporation and currently the only approved enzyme replacement therapy for Gaucher disease, were approximately \$1 billion in 2006, and \$546.8 million for the six months ended June 30, 2007, according to public reports by Genzyme. prGCD is a plant cell expressed version of the GCD enzyme, developed through our ProCellEx protein expression system. prGCD has an amino acid, glycan and three-dimensional structure that is very similar to its naturally-produced counterpart as well as to Cerezyme, the mammalian cell expressed version of the same protein. We believe prGCD may prove more cost-effective than the currently marketed alternative due to the cost benefits of expression through our ProCellEx protein expression system. In addition, based on our laboratory testing, preclinical and clinical results, we believe that prGCD may have the potential for increased potency and efficacy compared to the existing enzyme replacement therapy for Gaucher disease which may translate into lower dosages and/or less frequent treatments.

Other Drug Candidates in Our Pipeline

In addition to prGCD, we are developing an innovative product pipeline using our ProCellEx protein expression system, including therapeutic protein candidates for the treatment of Fabry disease, a rare, genetic lysosomal disorder in humans and female infertility disorders. We plan to file an investigational new drug application (IND) with the FDA with respect to at least one additional product during 2008. Because these

S-1

product candidates are based on well-understood proteins with known biological mechanisms of action, we believe we may be able to reduce the development risks and time to market for our product candidates. We hold the worldwide commercialization rights to our proprietary development candidates and we intend to establish an internal, commercial infrastructure and targeted sales force to market prGCD and our other products, if approved, in North America, the European Union and in other significant markets, including Israel.

ProCellEx: Our Proprietary Protein Expression System

Our ProCellEx protein expression system consists of a comprehensive set of technologies and capabilities for the development of recombinant proteins, including advanced genetic engineering technology and plant cell-based protein expression methods. Through our ProCellEx protein expression system, we can develop highly complex recombinant therapeutic proteins all the way to the scale-up of a purified product produced in compliance with current good manufacturing practices, or cGMP. We believe that our plant cell-based expression technology will enable us, in certain cases, to develop and commercialize recombinant proteins without infringing upon the method-based patents or other intellectual property rights of third parties. Moreover, we expect to enjoy method-based patent protection for

the proteins we develop using our proprietary ProCellEx protein expression technology, although there can be no assurance that any such patents will be granted. In some cases, we may be able to obtain patent protection for the compositions of the proteins themselves. We have filed for United States and international composition of matter patents for prGCD.

Our ProCellEx protein expression system is built on flexible custom-designed bioreactors made of polyethylene and optimized for the development of complex proteins in plant cell cultures. These bioreactors entail low initial capital investment, are rapidly scalable at a low cost and require less hands-on maintenance between cycles, compared to the highly complex, expensive, stainless steel bioreactors typically used in mammalian cell-based production systems. As a result, through our ProCellEx protein expression system, we believe that we can develop recombinant therapeutic proteins yielding substantial cost advantages, accelerated development and other competitive benefits as compared to mammalian cell-based protein expression systems.

We have successfully demonstrated the feasibility of our ProCellEx system by expressing, on an exploratory, research scale, many complex therapeutic proteins belonging to different drug classes, such as enzymes, hormones, monoclonal antibodies, cytokines and vaccines. The therapeutic proteins we have expressed to date in research models have produced the intended composition and similar biological activity compared to their respective human-equivalent proteins. Moreover, several of such proteins demonstrated advantageous biological activity when compared to the biotherapeutics currently available in the market to treat the applicable disease or disorder. We believe that clinical success of prGCD would be a strong proof-of-concept for our ProCellEx protein expression system and plant cell-based protein expression technology. We also believe that the significant benefits of our ProCellEx protein expression system, if further substantiated in clinical trials and commercialization of our product candidates, have the potential to transform the industry standard for the development of complex therapeutic proteins.

Competitive Advantages of Our ProCellEx Protein Expression System

We believe that our ProCellEx protein expression system, including our advanced genetic engineering technology and plant cell-based protein expression methods, affords us a number of significant advantages over mammalian, bacterial, yeast and transgenic cell-based expression technologies, including the following:

Ability to penetrate certain patent-protected markets.

Significantly lower capital and production costs.

More effective and potent end product relative to mammalian based systems.

Elimination of the risk of viral transmission or infection by mammalian components.

Broad range of expression capabilities.

Strategic Collaborations

In addition to the product candidates that we are developing internally, we have entered into agreements for additional compounds with academic institutions, including a licensing agreement with the technology transfer arm of Israel's Weizmann Institute of Science and an agreement with the technology transfer arm of the Hebrew University of Jerusalem. We are also collaborating with other pharmaceutical companies to develop therapeutic proteins that can benefit from the significant cost, intellectual property and other competitive advantages of our ProCellEx protein expression system. We entered into an agreement with Teva Pharmaceutical Industries Ltd. in September 2006 under which we have agreed to collaborate on the research and development of two proteins to be developed using our ProCellEx protein expression system. We also continuously review and consider additional development and commercialization alliances with other pharmaceutical companies and academic institutions.

Our Strategy

Our goal is to become a leading fully integrated biopharmaceutical company focused on the development and commercialization of proprietary recombinant therapeutic proteins. To achieve our goal, we intend to:

Obtain regulatory approval for prGCD for the treatment of Gaucher disease.

Develop a pipeline of innovative recombinant therapeutic proteins.

Build a targeted sales and marketing infrastructure.

Establish development and commercialization alliances with corporate partners.

Acquire or in-license new technologies, products or companies.

Leverage strength and experience of our management team and board of directors.

S-3

The offering

Common stock we are offering

3,726,708 shares

Common stock being offered by our selling securityholders

1,242,236 shares

Total

4,968,944 shares

Common stock outstanding immediately following this offering

69,502,963 shares

AMEX symbol

PLX

Use of proceeds

We estimate that the net proceeds to us from the offering after expenses will be approximately \$121.0 million, assuming a public offering price of \$35.00* per share. The net proceeds from the securities sold by us will be added to our general corporate funds and may be used for research and development expenses, clinical trials, establishing an internal sales force and general corporate and administrative purposes. We expect to use a portion of the proceeds of any offering by us in connection with the construction and furnishing of a new manufacturing facility.

We will not receive any proceeds from the sale of shares of common stock by the selling securityholders.

Risk factors

See “Risk factors” beginning on page S-5 of this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.

The number of shares of our common stock to be outstanding after this offering is based on the number of shares outstanding as of September 15, 2007, and does not include:

5,443,686 shares of common stock available for issuance under our employee stock incentive plan as of September 15, 2007; and

6,341,618 shares of common stock issuable upon the exercise of outstanding options and warrants as of September 15, 2007.

Unless otherwise stated, all information contained in this prospectus supplement assumes that the underwriters do not exercise their over-allotment option, and all currency amounts in this prospectus are stated in US dollars.

*

Throughout the prospectus supplement, we have used the \$35.00 per share assumed public offering price, which is based upon the last reported sales price of \$35.90 for our common stock on the AMEX on October 2, 2007. Given the limited liquidity of our common stock, this trading price may not reflect the actual fair market value of our common stock. The trading of our common stock, including as a result of the marketing of the offering described in this prospectus supplement, may depress the trading price of our stock resulting in a significantly lower actual public offering price. See “The market price of our common stock may fluctuate significantly”, “Future sales of our common stock could reduce our stock price” and “Trading of our common stock is limited” under the section titled “Risk Factors”. The actual public offering price of the common stock we are offering will be negotiated between us and the underwriters.

You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information.

S-4

Risk factors

Investment in our securities involves a high degree of risk. Our business, financial condition or results of operations could be adversely affected by any of these risks. If any of these risks occur, the value our common stock and our other securities may decline. You should carefully consider the risk factors discussed in this section with the other information included in this prospectus supplement and the accompanying prospectus, as well as the discussion set forth under the caption “Risk Factors” in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2006, before making your investment decision, as well as those contained in any filing with the Commission subsequent to the date of the Annual Report. Our business, financial condition or results of operations could be adversely affected by any of these risks. If any of these risks occur, the value of our common stock could decline.

Risks Related to Our Business

We currently have no product revenues and will need to raise additional capital to operate our business, which may not be available on favorable terms, or at all, and which will have a dilutive effect on our shareholders.

To date, we have generated no revenues from product sales and only minimal revenues from research and development services and other fees. Our accumulated deficit as of June 30, 2007 was \$33.1 million. For the years ended December 31, 2006, 2005 and 2004, we had net losses of \$9.4 million, \$5.7 million and \$2.4 million, respectively, primarily as a result of expenses incurred through a combination of research and development activities and expenses supporting those activities. Drug development and commercialization is very capital intensive. Until we receive approval from the FDA and other regulatory authorities for our drug candidates, we cannot sell our drugs and will not have product revenues. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from the net proceeds of any equity or debt offerings, cash on hand, licensing fees and grants. Over the next 12 months, we expect to spend a minimum of approximately \$8 million on preclinical and clinical development for our products under development. Based on our current plans and capital resources, we believe that our cash and cash equivalents will be sufficient to enable us to meet our minimum planned operating needs for at least the next 12 months. However, changes may occur that could consume our existing capital at a faster rate than

projected, including, among others, changes in the progress of our research and development efforts, the cost and timing of regulatory approvals and the costs of protecting our intellectual property rights. We expect to seek additional financing to implement and fund product development, preclinical studies and clinical trials for the drugs in our pipeline, as well as additional drug candidates and other research and development projects. If we are unable to secure additional financing in the future on acceptable terms, or at all, we may be unable to commence or complete planned preclinical and clinical trials or obtain approval of our drug candidates from the FDA and other regulatory authorities. In addition, we may be forced to reduce or discontinue product development or product licensing, reduce or forego sales and marketing efforts and other commercialization activities or forego attractive business opportunities in order to improve our liquidity and to enable us to continue operations which would have a material adverse effect on our business and results of operations. Any additional sources of financing will likely involve the issuance of our equity securities, which will have a dilutive effect on our shareholders.

We are not currently profitable and may never become profitable which would have a material adverse effect on our business and results of operations and could negatively impact the value of our common stock.

We expect to incur substantial losses for the foreseeable future and may never become profitable. We also expect to continue to incur significant operating and capital expenditures, and we anticipate that our expenses will increase substantially in the foreseeable future as we:

continue to undertake preclinical development and clinical trials for our current and new drug candidates;

seek regulatory approvals for our drug candidates;

implement additional internal systems and infrastructure;

seek to license-in additional technologies to develop; and

hire additional personnel.

S-5

Risk factors

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

We have a limited operating history which may limit the ability of investors to make an informed investment decision.

We are a clinical stage biopharmaceutical company. To date, we have not commercialized any of our drug candidates or received any FDA or other approval to market any drug. The successful commercialization of our drug candidates will require us to perform a variety of functions, including:

continuing to undertake preclinical development and clinical trials;

participating in regulatory approval processes;

formulating and manufacturing products; and

conducting sales and marketing activities.

Our operations have been limited to organizing and staffing our company, acquiring, developing and securing our proprietary technology and undertaking, through third parties, preclinical trials and clinical trials of our principal drug candidates. To date, we have commenced a phase III clinical trial in connection with only one drug candidate, prGCD, and we have not commenced the preclinical trial phase of development under Good Laboratory Practice (GLP) standards for any of our other drug candidates. These operations provide a limited basis for investors to assess our ability to commercialize our drug candidates and whether to invest in us.

Our ProCellEx protein expression system is based on our proprietary plant cell-based expression technology which has a limited history and any material problems with the system, which may be unforeseen, may have a material adverse effect on our business and results of operations.

Our ProCellEx protein expression system is based on our proprietary plant cell-based expression technology. Our business is dependent upon the successful development and approval of our product candidates produced through our protein expression system. Our ProCellEx protein expression system is novel and is still in the early stages of development and optimization, and, accordingly, is subject to certain risks. Mammalian cell-based protein expression systems have been used in connection with recombinant therapeutic protein expression for more than 20 years and are the subject of a wealth of data; in contrast, there is not a significant amount of data generated regarding plant cell-based protein expression and, accordingly, plant cell-based protein expression systems may be subject to unknown risks. In addition, the protein glycosylation pattern created by our protein expression system is not identical to the natural human glycosylation pattern and its long term effect on human patients is still unknown. Lastly, as our protein expression system is a new technology, we cannot always rely on existing equipment; rather, there is a need to design custom-made equipment and to generate specific growth media for the plant cells, which may not be available at favorable prices, if at all. Any material problems with the technology underlying our plant cell-based protein expression system may have a material adverse effect on our business and results of operations.

We currently depend heavily on the success of prGCD, our lead product candidate which is in clinical development. Any failure to commercialize prGCD, or the experience of significant delays in doing so, will have a material adverse effect on our business, results of operations and financial condition.

We have invested a significant portion of our efforts and financial resources in the development of prGCD. Our ability to generate product revenue, which we do not expect to occur in the near term, if at all, will depend heavily on the successful development and commercialization of prGCD. The successful commercialization of prGCD will depend on several factors, including the following:

successful completion of our clinical trials for prGCD;

obtaining marketing approvals from the FDA and other foreign regulatory authorities;

S-6

Risk factors

maintaining the cGMP compliance of our manufacturing facility or establishing manufacturing arrangements with third parties;

the successful audit of our facilities by the FDA and other foreign regulatory authorities;

a continued acceptable safety and efficacy profile of our product candidates following approval; and

other risks described in these Risk Factors.

Any failure to commercialize prGCD or the experience of significant delays in doing so will have a material adverse effect on our business, results of operations and financial condition.

All of our product candidates other than prGCD are in research stages. If we are unable to develop and commercialize our other product candidates, our business will be adversely affected.

A key element of our strategy is to develop and commercialize a portfolio of new products in addition to prGCD. We are seeking to do so through our internal research programs and strategic collaborations for the development of new products. Research programs to identify new product candidates require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for many reasons, including the following:

the research methodology used may not be successful in identifying potential product candidates;

competitors may develop alternatives that render our product candidates obsolete;

a product candidate may on further study be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory approval;

a product candidate is not capable of being produced in commercial quantities at an acceptable cost, or at all; or

a product candidate may not be accepted by patients, the medical community or third-party payors.

We may not obtain the necessary U.S. or worldwide regulatory approvals to commercialize our drug candidates in a timely manner, if at all, which would have a material adverse effect on our business and results of operations.

We will need FDA approval to commercialize our drug candidates in the United States and approvals from foreign regulators to commercialize our drug candidates elsewhere. In order to obtain FDA approval of any of our drug candidates, we must submit to the FDA a New Drug Application, an NDA, demonstrating that the drug candidate is safe for humans and effective for its intended use. This demonstration requires significant research and animal tests, which are referred to as preclinical studies, as well as human tests, which are referred to as clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, and depends upon the type, complexity and novelty of the drug candidate and requires substantial resources for research, development and testing. Our research and clinical efforts may not result in drugs that the FDA considers safe for humans and effective for indicated uses which would have a material adverse effect on our business and results of operations. After clinical trials are completed for any drug candidate, if at all, the FDA has substantial discretion in the drug approval process of the drug candidate and may require us to conduct additional clinical testing or to perform post-marketing studies which would cause us to incur additional costs. Incurring such costs could have a material adverse effect on our business and results of operations.

The approval process for any drug candidate may also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during its regulatory review of such drug candidate. Delays in obtaining regulatory approvals with respect to any drug candidate may:

delay commercialization of, and our ability to derive product revenues from, such drug candidate;

require us to perform costly procedures with respect to such drug candidate; or

otherwise diminish any competitive advantages that we may have with respect to such drug candidate.

S-7

Risk factors

Even if we comply with all FDA requests, the FDA may ultimately reject one or more of the NDAs we file in the future, if any, or we might not obtain regulatory clearance in a timely manner. Companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials, even after obtaining promising earlier trial results. Failure to obtain FDA approval of any of our drug candidates in a timely manner, if at all, will severely undermine our business and results of operation by reducing our potential marketable products and our ability to generate corresponding product revenues.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize any drug. Foreign regulatory approval processes generally include all of the risks associated with the FDA approval procedures described above. We might not be able to obtain the approvals necessary to commercialize our drug candidates for sale outside of the United States in a timely manner, if at all, which could adversely affect our business, operating results and financial condition.

Clinical trials are very expensive, time-consuming and difficult to design and implement and may result in unforeseen costs which may have a material adverse effect on our business and results of operations.

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

unforeseen safety issues;

determination of dosing issues;

lack of effectiveness during clinical trials;

slower than expected rates of patient recruitment;

inability to monitor patients adequately during or after treatment;

inability or unwillingness of medical investigators and institutional review boards to follow our clinical protocols;
and

lack of sufficient funding to finance the clinical trials.

Any failure or delay in commencement or completion of any clinical trials may have a material adverse effect on our business and results of operations. In addition, we or the FDA or other regulatory authorities may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable safety or health risks or if the FDA or such other regulatory authorities, as applicable, find deficiencies in our IND submissions or the conduct of these trials. Any suspensions of our clinical trials may have a material adverse effect on our business and results of operations.

If the results of our clinical trials do not support our claims relating to any drug candidate or if serious side effects are identified, the completion of development of such drug candidate may be significantly delayed or we may be forced to abandon development altogether, which will significantly impair our ability to generate product revenues.

The results of our clinical trials with respect to any drug candidate might not support our claims of safety or efficacy, the effects of our drug candidates may not be the desired effects or may include undesirable side effects or the drug candidates may have other unexpected characteristics. Further, success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and the results of later clinical trials may not replicate the results of prior clinical trials and preclinical testing. The clinical trial process may fail to demonstrate that our drug candidates are safe for humans and effective for indicated uses. In addition, our clinical trials may involve a specific and small patient population. Because of the small sample size, the results of these early clinical trials may not be indicative of future results. Adverse or inconclusive results may cause us to

S-8

Risk factors

abandon a drug candidate and may delay development of other drug candidates. Any delay in, or termination of, our clinical trials will delay the filing of our NDAs with the FDA and, ultimately, significantly impair our ability to commercialize our drug candidates and generate product revenues which would have a material adverse effect on our business and results of operations.

We may find it difficult to enroll patients in our clinical trials, which could cause significant delays in the completion of such trials or may cause us to abandon one or more clinical trials.

Each of the diseases or disorders that our product candidates are intended to treat is relatively rare and we expect only a subset of the patients with these diseases to be eligible for our clinical trials. Given that each of our product candidates is in the early stages of preclinical or clinical development, we may not be able to initiate or continue clinical trials for each or all of our product candidates if we are unable to locate a sufficient number of eligible subjects to participate in the clinical trials required by the FDA and/or other foreign regulatory authorities. The requirements of our clinical testing mandate that a patient cannot be involved in another clinical trial for the same indication. We are aware that our competitors have ongoing clinical trials for products that are competitive with our product candidates and subjects who would otherwise be eligible for our clinical trials may be involved in such testing, rendering them unavailable for testing of our product candidates. Our inability to enroll a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether, which would have a material adverse effect on our business.

If physicians, patients, third party payors and others in the medical community do not accept and use our drugs, our ability to generate revenue from sales of our products under development will be materially impaired.

Even if the FDA or other foreign regulatory authorities approve any of our drug candidates for commercialization, physicians and patients, and other healthcare providers, may not accept and use such candidates. Future acceptance and use of our products will depend upon a number of factors including:

perceptions by physicians, patients, third party payors and others in the medical community, about the safety and effectiveness of our drug candidates;

the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;

the prevalence and severity of any side effects, including any limitations or warnings contained in our product's approved labeling;

pharmacological benefit of our products relative to competing products and products under development;

the efficacy and potential advantages relative to competing products and products under development;

relative convenience and ease of administration;

effectiveness of education, marketing and distribution efforts by us and our licensees and distributors, if any;

publicity concerning our products or competing products and treatments;

reimbursement of our products by third party payors; and

the price for our products and competing products.

Because we expect sales of our current drug candidates, if approved, to generate substantially all of our product revenues for the foreseeable future, the failure of any of these drugs to find market acceptance would harm our

business and revenues from sales of our products would be materially impaired.

S-9

Risk factors

Because our clinical trials depend upon third-party researchers, the results of our clinical trials and such research activities are subject to delays and other risks which are, to a certain extent, beyond our control, which could impair our clinical development programs and our competitive position.

We depend upon independent investigators and collaborators, such as universities and medical institutions, to conduct our preclinical and clinical trials. These collaborators are not our employees, and we cannot control the amount or timing of resources that they devote to our clinical development programs. The investigators may not assign as great a priority to our clinical development programs or pursue them as diligently as we would if we were undertaking such programs directly. If outside collaborators fail to devote sufficient time and resources to our clinical development programs, or if their performance is substandard, the approval of our FDA and other applications, if any, and our introduction of new drugs, if any, may be delayed which could impair our clinical development programs and would have a material adverse effect on our business and results of operations. The collaborators may also have relationships with other commercial entities, some of whom may compete with us. If our collaborators also assist our competitors, our competitive position could be harmed.

Our strategy, in many cases, is to enter into collaboration agreements with third parties to leverage our ProCellEx system to develop product candidates. If we fail to enter into these agreements or if we or the third parties do not perform under such agreements or terminate or elect to discontinue the collaboration, it could have a material adverse effect on our revenues.

Our strategy, in many cases, is to enter into collaboration arrangements with pharmaceutical companies to leverage our ProCellEx system to develop additional product candidates. Under these arrangements, we may grant to our collaboration partners rights to license and commercialize pharmaceutical products developed under collaboration agreements. Our collaboration partners may control key decisions relating to the development of the products and we may depend on our collaborators' expertise and dedication of sufficient resources to develop and commercialize the products. The rights of our collaboration partners would limit our flexibility in considering alternatives for the commercialization of the developed products. To date, we have entered into an agreement with Teva Pharmaceutical Industries Ltd., which relates to the development of two proteins, and licensing by Teva of such proteins in consideration for royalties and milestone payments. If we or any of our partners breach or terminate the agreements that make up such collaboration arrangements or such partners otherwise fail to conduct their collaboration-related activities in a timely manner or if there is a dispute about their obligations or if either party terminates the agreement or elects not to continue the collaboration, we may not enjoy the benefits of the collaboration agreements or receive any royalties or milestone payments from them.

The manufacture of our products is an exacting and complex process, and if we or one of our materials suppliers encounter problems manufacturing our products, it will have a material adverse effect on our business and results of operations.

The FDA and foreign regulators require manufacturers to register manufacturing facilities. The FDA and foreign regulators also inspect these facilities to confirm compliance with cGMP or similar requirements that the FDA or foreign regulators establish. We or our materials suppliers may face manufacturing or quality control problems causing product production and shipment delays or a situation where we or the supplier may not be able to maintain compliance with the FDA's cGMP requirements, or those of foreign regulators, necessary to continue manufacturing

our drug candidates. Any failure to comply with cGMP requirements or other FDA or foreign regulatory requirements could adversely affect our clinical research activities and our ability to market and develop our products. Our current facility has not been audited by the FDA or other foreign regulatory authorities and is unlikely to be audited until we submit an NDA for a product candidate. There can be no assurance that we will be able to comply with FDA or foreign regulatory manufacturing requirements for our current facility or any future facility that we may establish, which would have a material adverse effect on our business.

S-10

Risk factors

We rely on third parties for final processing of our prGCD candidate, which exposes us to a number of risks that may delay development, regulatory approval and commercialization of our product candidates or result in higher product costs.

We have no experience in the final filling and freeze drying steps of the drug manufacturing process. We have entered into a contract with Teva pursuant to which Teva has agreed to perform the final filling and freeze drying steps for prGCD in connection with our clinical trials. If any of our product candidates receive FDA or other regulatory authority approval, we will rely on Teva or other third-party contractors to perform the final manufacturing steps for our products on a commercial scale. We may be unable to identify manufacturers and replacement manufacturers on acceptable terms or at all because the number of potential manufacturers is limited and the FDA and other regulatory authorities, as applicable, must approve any replacement manufacturer, including us, and we or any such third party manufacturer might be unable to formulate and manufacture our drug products in the volume and of the quality required to meet our clinical and commercial needs. If we engage any contract manufacturers, such manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical or commercial needs. Each of these risks could delay our clinical trials, the approval, if any, of prGCD and our other potential drug candidates by the FDA or other regulatory authorities, or the commercialization of prGCD and our other drug candidates or could result in higher product costs or otherwise deprive us of potential product revenues.

We have no experience selling, marketing or distributing products and no internal capability to do so.

We currently have no sales, marketing or distribution capabilities and no experience in building a sales force and distribution capabilities. To commercialize our product candidates, we must either develop internal sales, marketing and distribution capabilities, which will be expensive and time consuming, or make arrangements with third parties to perform these services. If we decide to market any of our products directly, we must commit significant financial and managerial resources to develop a marketing and sales force with technical expertise and with supporting distribution capabilities. Building an in-house marketing and sales force with technical expertise and distribution capabilities will require significant expenditures, management resources and time. Factors that may inhibit our efforts to commercialize our products directly and without strategic partners include:

our inability to recruit and retain adequate numbers of effective sales and marketing personnel;

the inability of sales personnel to obtain access to or persuade adequate numbers of physicians to prescribe our products;

the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and

unforeseen costs and expenses associated with creating and sustaining an independent sales and marketing organization.

We may not be successful in recruiting the sales and marketing personnel necessary to sell our products and even if we do build a sales force, they may not be successful in marketing our products, which would have a material adverse effect on our business and results of operations.

If the market opportunities for our current product candidates are smaller than we believe they are, then our revenues may be adversely affected and our business may suffer.

The focus of our current clinical pipeline is on relatively rare disorders with small patient populations, in particular Gaucher disease and Fabry disease. Currently, most reported estimates of the prevalence of these diseases are based on studies of small subsets of the population of specific geographic areas, which are then extrapolated to estimate the prevalence of the diseases in the broader world population. As new studies are performed, the estimated prevalence of these diseases may change. There can be no assurance that the prevalence of Gaucher disease or Fabry disease in the study populations, particularly in these newer studies, accurately reflect the prevalence of these diseases in the broader world population. If the market opportunities for our current product candidates are smaller than we believe they are, our revenues may be adversely affected and our business may suffer.

S-11

Risk factors

We may enter into distribution arrangements and marketing alliances for certain products and any failure to successfully identify and implement these arrangements on favorable terms, if at all, may impair our ability to commercialize our product candidates.

While we intend to build a sales force to market prGCD and other product candidates, we do not anticipate having the resources in the foreseeable future to develop global sales and marketing capabilities for all of the products we develop, if any. We may pursue arrangements regarding the sales and marketing and distribution of one or more of our product candidates and our future revenues may depend, in part, on our ability to enter into and maintain arrangements with other companies having sales, marketing and distribution capabilities and the ability of such companies to successfully market and sell any such products. Any failure to enter into such arrangements and marketing alliances on favorable terms, if at all, could delay or impair our ability to commercialize our product candidates and could increase our costs of commercialization. Our use of distribution arrangements and marketing alliances to commercialize our product candidates will subject us to a number of risks, including the following:

we may be required to relinquish important rights to our products or product candidates;

we may not be able to control the amount and timing of resources that our distributors or collaborators may devote to the commercialization of our product candidates;

our distributors or collaborators may experience financial difficulties;

our distributors or collaborators may not devote sufficient time to the marketing and sales of our products; and

business combinations or significant changes in a collaborator's business strategy may adversely affect a collaborator's willingness or ability to complete its obligations under any arrangement.

We may need to enter into additional co-promotion arrangements with third parties where our own sales force is neither well situated nor large enough to achieve maximum penetration in the market. We may not be successful in entering into any co-promotion arrangements, and the terms of any co-promotion arrangements we enter into may not be favorable to us.

Developments by competitors may render our products or technologies obsolete or non-competitive which would have a material adverse effect on our business and results of operations.

We compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Our drug candidates will have to compete with existing therapies and therapies under development by our competitors. In addition, our commercial opportunities may be reduced or eliminated if our competitors develop and market products that are less expensive, more effective or safer than our drug products. Other companies have drug candidates in various stages of preclinical or clinical development to treat diseases for which we are also seeking to develop drug products. Some of these potential competing drugs are further advanced in development than our drug candidates and may be commercialized earlier. Even if we are successful in developing effective drugs, our products may not compete successfully with products produced by our competitors.

We specifically face competition from companies with approved treatments of Gaucher disease, including Genzyme Corporation and to a certain extent, Actelion Ltd. In addition, we are aware of other early stage, experimental, small molecule, oral drugs which are being developed for the treatment of Gaucher disease by Amicus Therapeutics, Inc. and Genzyme. Shire plc is currently developing a gene-activated enzyme expressed in human cancer cells to treat Gaucher disease. We also face competition from companies with approved treatments of Fabry disease, including Genzyme and Shire, and we are aware of other early stage drugs which are being developed for the treatment of Fabry disease, including a drug being developed by Amicus Therapeutics.

We also face competition from companies that are developing other platforms for the expression of recombinant therapeutic pharmaceuticals. We are aware of companies that are developing alternative technologies to develop

S-12

Risk factors

and produce therapeutic proteins in anticipation of the expiration of certain patent claims covering marketed proteins. Competitors developing alternative expression technologies include Crucell N.V., Shire and GlycoFi Inc. (which was acquired by Merck). Other companies are developing alternate plant-based technologies, include Biorex, Inc., Chlorogen, Inc., Greenovation Biotech GmbH and Dow Agrosience.

Several biogeneric companies are pursuing the opportunity to develop and commercialize follow-on versions of other currently marketed biologic products, including growth factors, hormones, enzymes, cytokines and monoclonal antibodies, which are areas that interest us. These companies include, among others, Novartis AG/Sandoz Pharmaceuticals, BioGeneriX AG, Barr Pharmaceuticals, Stada Arzneimittel AG, BioPartners GmbH and Teva.

Most of our competitors, either alone or together with their collaborative partners, operate larger research and development programs, staff and facilities and have substantially greater financial resources than we do, as well as significantly greater experience in:

developing drugs;

undertaking preclinical testing and human clinical trials;

obtaining FDA and other regulatory approvals of drugs;

formulating and manufacturing drugs; and

launching, marketing and selling drugs.

These organizations also compete with us to attract qualified personnel, acquisitions and joint ventures candidates and for other collaborations. Activities of our competitors may impose unanticipated costs on our business which would have a material adverse effect on our business and results of operations.

If we fail to adequately protect or enforce our intellectual property rights or secure rights to third party patents, the value of our intellectual property rights would diminish and our business, competitive position and results of operations would suffer.

As of June 30, 2007, we had 44 pending patent applications and four joint pending patent applications, and held licensed rights to 21 pending patent applications. However, the filing of a patent application does not mean that we will be issued a patent, or that any patent eventually issued will be as broad as requested in the patent application or sufficient to protect our technology. Any modification required to a current patent application may delay the approval of such patent application which would have a material adverse effect on our business and results of operations. In addition, there are a number of factors that could cause our patents, if granted, to become invalid or unenforceable or that could cause our patent applications to not be granted, including known or unknown prior art, deficiencies in the patent application or the lack of originality of the technology.

Our competitive position and future revenues will depend in part on our ability and the ability of our licensors and collaborators to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties. We have filed United States and international patent applications for process patents, as well as composition of matter patents, for prGCD. However, we cannot predict:

the degree and range of protection any patents will afford us against competitors and those who infringe upon our patents, including whether third parties will find ways to invalidate or otherwise circumvent our licensed patents;

if and when patents will issue;

whether or not others will obtain patents claiming aspects similar to those covered by our licensed patents and patent applications; or

whether we will need to initiate litigation or administrative proceedings, which may be costly, and whether we win or lose.

S-13

Risk factors

We hold, or have license rights to, eight patents. If patent rights covering our products are not sufficiently broad, they may not provide us with sufficient proprietary protection or competitive advantages against competitors with similar products and technologies. Furthermore, if the United States Patent and Trademark Office or foreign patent offices issue patents to us or our licensors, others may challenge the patents or circumvent the patents, or the patent office or the courts may invalidate the patents. Thus, any patents we own or license from or to third parties may not provide any protection against our competitors and those who infringe upon our patents.

Furthermore, the life of our patents is limited. The patents we hold relating to our ProCellEx protein expression system will expire in 2016. If patents issue from other currently pending patent applications, those patents will expire between 2023 and 2027.

We rely on confidentiality agreements that could be breached and may be difficult to enforce which could have a material adverse effect on our business and competitive position.

Our policy is to enter agreements relating to the non-disclosure of confidential information with third parties, including our contractors, consultants, advisors and research collaborators, as well as agreements that purport to require the disclosure and assignment to us of the rights to the ideas, developments, discoveries and inventions of our employees and consultants while we employ them. However, these agreements can be difficult and costly to enforce. Moreover, to the extent that our contractors, consultants, advisors and research collaborators apply or independently develop intellectual property in connection with any of our projects, disputes may arise as to the proprietary rights to

this type of information. If a dispute arises, a court may determine that the right belongs to a third party, and enforcement of our rights can be costly and unpredictable. In addition, we rely on trade secrets and proprietary know-how that we will seek to protect in part by confidentiality agreements with our employees, contractors, consultants, advisors or others. Despite the protective measures we employ, we still face the risk that:

these agreements may be breached;

these agreements may not provide adequate remedies for the applicable type of breach; or

our trade secrets or proprietary know-how will otherwise become known.

Any breach of our confidentiality agreements or our failure to effectively enforce such agreements would have a material adverse effect on our business and competitive position.

If we infringe the rights of third parties we could be prevented from selling products, forced to pay damages and required to defend against litigation which could result in substantial costs and may have a material adverse effect on our business and results of operations.

We have not received to date any claims of infringement by any third parties. However, as our drug candidates progress into clinical trials and commercialization, if at all, our public profile and that of our drug candidates may be raised and generate such claims. Defending against such claims, and occurrence of a judgment adverse to us, could result in unanticipated costs and may have a material adverse effect on our business and competitive position. If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we may have to:

obtain licenses, which may not be available on commercially reasonable terms, if at all;

redesign our products or processes to avoid infringement;

stop using the subject matter claimed in the patents held by others, which could cause us to lose the use of one or more of our drug candidates;

defend litigation or administrative proceedings that may be costly whether we win or lose, and which could result in a substantial diversion of management resources; or

pay damages.

Any costs incurred in connection with such events or the inability to sell our products may have a material adverse effect on our business and results of operations

S-14

Risk factors

If we cannot meet requirements under our license agreements, we could lose the rights to our products, which could have a material adverse effect on our business.

We depend on licensing agreements with third parties to maintain the intellectual property rights to certain of our products under development. Presently, we have licensed rights from Yeda which allow us to use their technology and discoveries for the development, production and sale of enzymatically active mutations of GCD and derivatives thereof for the treatment of Gaucher disease. Our license agreements require us to make payments and satisfy performance obligations in order to maintain our rights under these agreements. All of these agreements last either throughout the life of the patents that are the subject of the agreements, or with respect to other licensed technology, for a number of years after the first commercial sale of the relevant product.

In addition, we are responsible for the cost of filing and prosecuting certain patent applications and maintaining certain issued patents licensed to us. If we do not meet our obligations under our license agreements in a timely manner, we could lose the rights to our proprietary technology which could have a material adverse effect on our business.

If we in-license drug candidates, we may delay or otherwise adversely affect the development of our existing drug candidates, which may negatively impact our business, results of operations and financial condition.

In addition to our own internally developed drug candidates, we proactively seek opportunities to in-license and advance other drug candidates that are strategic and have value-creating potential to take advantage of our development know-how and technology. If we in-license any additional drug candidates, our capital requirements may increase significantly. In addition, in-licensing additional drug candidates may place a strain on the time of our existing personnel, which may delay or otherwise adversely affect the development of our existing drug candidates or cause us to re-prioritize our drug pipeline if we do not have the necessary capital resources to develop all of our drug candidates, which may delay the development of our drug candidates and negatively impact our business, results of operations and financial condition.

If we are unable to successfully manage our growth, there could be a material adverse impact on our business, results of operations and financial condition.

We have grown rapidly and expect to continue to grow. We expect to hire more employees, particularly in the areas of drug development, regulatory affairs and sales and marketing, and increase our facilities and corporate infrastructure, further increasing the size of our organization and related expenses. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. We have begun to prepare conceptual designs of a new manufacturing facility and are currently evaluating potential locations for such facility. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability on the part of our management to manage growth could delay the execution of

our business plans or disrupt our operations. If we are unable to manage our growth effectively, we may not use our resources in an efficient manner, which may delay the development of our drug candidates and negatively impact our business, results of operations and financial condition.

If we acquire companies, products or technologies, we may face integration risks and costs associated with those acquisitions that could negatively impact our business, results from operations and financial condition.

If we are presented with appropriate opportunities, we may acquire or make investments in complementary companies, products or technologies. We may not realize the anticipated benefit of any acquisition or investment. If we acquire companies or technologies, we will face risks, uncertainties and disruptions associated with the integration process, including difficulties in the integration of the operations of an acquired company, integration of acquired technology with our products, diversion of our management's attention from other business concerns, the potential loss of key employees or customers of the acquired business and impairment

S-15

Risk factors

charges if future acquisitions are not as successful as we originally anticipate. In addition, our operating results may suffer because of acquisition-related costs or amortization expenses or charges relating to acquired intangible assets. Any failure to successfully integrate other companies, products or technologies that we may acquire may have a material adverse effect on our business and results of operations. Furthermore, we may have to incur debt or issue equity securities to pay for any additional future acquisitions or investments, the issuance of which could be dilutive to our existing shareholders.

We depend upon key employees and consultants in a competitive market for skilled personnel. If we are unable to attract and retain key personnel, it could adversely affect our ability to develop and market our products.

We are highly dependent upon the principal members of our management team, especially our President and Chief Executive Officer, Dr. David Aviezer, as well as our directors, including Eli Hurvitz and Phillip Frost, M.D., scientific advisory board members, consultants and collaborating scientists. Many of these people have been involved with us for many years and have played integral roles in our progress, and we believe that they will continue to provide value to us. A loss of any of these personnel may have a material adverse effect on aspects of our business and clinical development and regulatory programs. We have employment agreements with Dr. Aviezer and four other officers that may be terminated by us or the applicable officer at any time with varying notice periods of 60 to 90 days. Although these employment agreements generally include non-competition covenants and provide for severance payments that are contingent upon the applicable employee's refraining from competition with us, the applicable noncompetition provisions can be difficult and costly to monitor and enforce. The loss of any of these persons' services would adversely affect our ability to develop and market our products and obtain necessary regulatory approvals. Further, we do not maintain key-man life insurance.

We also depend in part on the continued service of our key scientific personnel and our ability to identify, hire and retain additional personnel, including marketing and sales staff. We experience intense competition for qualified personnel, and the existence of non-competition agreements between prospective employees and their former employers may prevent us from hiring those individuals or subject us to suit from their former employers. While we attempt to provide competitive compensation packages to attract and retain key personnel, many of our competitors are likely to have greater resources and more experience than we have, making it difficult for us to compete successfully for key personnel.

Our collaborations with outside scientists and consultants may be subject to restriction and change.

We work with chemists, biologists and other scientists at academic and other institutions, and consultants who assist us in our research, development, regulatory and commercial efforts, including the members of our scientific advisory board. These scientists and consultants have provided, and we expect that they will continue to provide, valuable advice on our programs. These scientists and consultants are not our employees, may have other commitments that would limit their future availability to us and typically will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. In addition, we will be unable to prevent them from establishing competing businesses or developing competing products. For example, if a key scientist acting as a principal investigator in any of our clinical trials identifies a potential product or compound that is more scientifically interesting to his or her professional interests, his or her availability to remain involved in such clinical trials could be restricted or eliminated.

Under current U.S. and Israeli law, we may not be able to enforce employees' covenants not to compete and therefore may be unable to prevent our competitors from benefiting from the expertise of some of our former employees.

We have entered into non-competition agreements with all of our employees. These agreements prohibit our employees, if they cease working for us, from competing directly with us or working for our competitors for a limited period. Under current U.S. and Israeli law, we may be unable to enforce these agreements against most

S-16

Risk factors

of our employees and it may be difficult for us to restrict our competitors from gaining the expertise our former employees gained while working for us. If we cannot enforce our employees' non-compete agreements, we may be unable to prevent our competitors from benefiting from the expertise of our former employees.

If product liability claims are brought against us, it may result in reduced demands for our products or damages that exceed our insurance coverage.

The clinical testing, marketing and use of our products exposes us to product liability claims in the event that the use or misuse of those products causes injury, disease or results in adverse effects. Use of our products in clinical trials, as well as commercial sale, could result in product liability claims. We presently carry clinical trial liability insurance with coverages of up to \$5 million per occurrence and \$5 million in the aggregate, an amount we consider reasonable and customary. However, this insurance coverage includes various deductibles, limitations and exclusions from coverage, and in any event might not fully cover any potential claims. We may need to obtain additional clinical trial liability coverage prior to initiating additional clinical trials. We expect to obtain product liability insurance coverage before commercialization of our proposed products; however, such insurance is expensive and insurance companies may not issue this type of insurance when we need it. We may not be able to obtain adequate insurance in the future at an acceptable cost. Any product liability claim, even one that was not in excess of our insurance coverage or one that is meritless and/or unsuccessful, could adversely affect our cash available for other purposes, such as research and development, which would have a material adverse effect on our business and results of operations. Product liability claims may result in reduced demand for our products, if approved, which would have a material adverse effect on our business and results of operations. In addition, the existence of a product liability claim could affect the market price of our common stock.

Reimbursement may not be available for our product candidates, which could diminish our sales or affect our ability to sell our products profitably.

Market acceptance and sales of our product candidates will depend on worldwide reimbursement policies. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will pay for and establish reimbursement levels. We cannot be sure that reimbursement will be available for any of our product candidates. Obtaining reimbursement approval for an approved product from every government or other third party payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products, if and when approved, to every payor. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement or we might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any approved products, if any, to such payors' satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Even if a payor determines that an approved product is eligible for reimbursement, the payor may impose coverage limitations that preclude payment for some uses that are approved by the FDA or other regulatory authorities. In addition, there is a risk that full reimbursement may not be available for high priced products. Moreover, eligibility for coverage does not imply that any approved product will be reimbursed in all cases or at a rate that allows us to make a profit or even cover our costs. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our product candidates. We have not commenced efforts to have our product candidates reimbursed by government or third-party payors. If reimbursement is not available or is available only to limited levels, the sales of our products, if approved may be diminished or we may not be able to sell such products profitably.

Reforms in the healthcare industry and the uncertainty associated with pharmaceutical pricing, reimbursement and related matters could adversely affect the marketing, pricing and demand for our products, if approved.

Increasing expenditures for healthcare have been the subject of considerable public attention in the United States. Both private and government entities are seeking ways to reduce or contain healthcare costs. Numerous proposals that would effect changes in the United States healthcare system have been introduced or proposed in Congress and in some state legislatures, including reductions in the pricing of prescription products and changes in the levels at which consumers and healthcare providers are reimbursed for purchases of pharmaceutical

S-17

Risk factors

products. For example, the Medicare Prescription Drug Improvement, and Modernization Act of 2003 and the proposed rules thereunder impose new requirements for the distribution and pricing of prescription drugs that began in 2006, which could reduce reimbursement of prescription drugs for healthcare providers and insurers. Although we cannot predict the full effect on our business of the implementation of this legislation, it is possible that the new Medicare prescription drug benefit, which will be managed by private health insurers and other managed care organizations, will result in additional government reimbursement for prescription drugs, which may make some prescription drugs more affordable but may further exacerbate industry wide pressure to reduce prescription drug prices. We believe that legislation that reduces reimbursement for our product candidates could adversely impact how much or under what circumstances healthcare providers will prescribe or administer our products. This could materially and adversely impact our business by reducing our ability to generate revenue, raise capital, obtain additional collaborators and market our products, if approved. In addition, we believe the increasing emphasis on managed care in the United States has and will continue to put pressure on the price and usage of pharmaceutical products, which may adversely impact product sales, upon approval, if at all.

Governments outside the United States tend to impose strict price controls and reimbursement approval policies, which may adversely affect our prospects for generating revenue.

In some countries, particularly European Union countries, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time (six to 12 months or longer) after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries with respect to any product candidate that achieves regulatory approval, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products upon approval if at all is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our prospects for generating revenue, if any, could be adversely which would have a material adverse effect on our business and results of operations. Further, if we achieve regulatory approval of any product, we must successfully negotiate product pricing for such product in individual countries. As a result, the pricing of our products, if approved, in different countries may vary widely, thus creating the potential for third-party trade in our products in an attempt to exploit price differences between countries. This third-party trade of our products could undermine our sales in markets with higher prices.

Risks Relating to Our Operations in Israel

Potential political, economic and military instability in the State of Israel, where the majority of our senior management and our research and development facilities are located, may adversely affect our results of operations.

Our executive office and operations are located in the State of Israel. Accordingly, political, economic and military conditions in Israel directly affect our business. Since the State of Israel was established in 1948, a number of armed conflicts have occurred between Israel and its Arab neighbors. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel, could affect adversely our operations. Since October 2000 there have been increasing occurrences of terrorist violence. Ongoing and revived hostilities or other Israeli political or economic factors could harm our operations and product development and cause our revenues to decrease. Furthermore, several countries, principally those in the Middle East, still restrict business with Israel and Israeli companies. These restrictive laws and policies may limit seriously our ability to sell our products in these countries.

Although Israel has entered into various agreements with Egypt, Jordan and the Palestinian Authority, there have been times since October 2000 when Israel has experienced an increase in unrest and terrorist activity. The recent events in the Gaza region and the current dispute and armed struggle between the Hamas movement and the Palestinian Authority has resulted in a further escalation in violence among Israel, the Palestinian Authority and other groups. In mid-2006, there was a war between Israel and the Hezbollah in Lebanon, resulting in rockets being fired from Lebanon up to 50 miles into Israel. Our current facilities are located in northern Israel,

S-18

Risk factors

are in range of rockets that were fired from Lebanon into Israel during the war and suffered minimal damages during one of the rocket attacks. In the event that our facilities are damaged as a result of hostile action, our operations may be materially adversely affected.

Our operations may be disrupted by the obligations of our personnel to perform military service which could have a material adverse effect on our business.

Many of our male employees in Israel, including members of senior management, are obligated to perform up to one month (in some cases more) of annual military reserve duty until they reach age 45 and, in the event of a military conflict, could be called to active duty. Our operations could be disrupted by the absence of a significant number of

our employees related to military service or the absence for extended periods of military service of one or more of our key employees. A disruption could have a material adverse effect on our business.

Because a certain portion of our expenses is incurred in New Israeli Shekels, or NIS, our results of operations may be seriously harmed by currency fluctuations and inflation.

We report our financial statements in U.S. dollars, our functional currency, but we pay a meaningful portion of our expenses in NIS. As a result, we are exposed to risk to the extent that the inflation rate in Israel exceeds the rate of devaluation of the NIS in relation to the U.S. dollar or if the timing of these devaluations lags behind inflation in Israel. In that event, the U.S. dollar cost of our operations in Israel will increase and our U.S. dollar-measured results of operations will be adversely affected. To the extent that the value of the NIS increases against the dollar, our expenses on a dollar cost basis increase. Our operations also could be adversely affected if we are unable to guard against currency fluctuations in the future. To date, we have not engaged in hedging transactions. In the future, we may enter into currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rate of the U.S. dollar against the NIS. These measures, however, may not adequately protect us from material adverse effects.

The tax benefits available to us require that we meet several conditions and may be terminated or reduced in the future, which would increase our taxes and would have a material adverse effect on our business and results of operations.

We are able to take advantage of tax exemptions and reductions resulting from the “Approved Enterprise” status of our facilities in Israel. To remain eligible for these tax benefits, we must continue to meet certain conditions, including making specified investments in property and equipment, and financing at least 30% of such investments with share capital. If we fail to meet these conditions in the future, the tax benefits would be canceled and we may be required to refund any tax benefits we already have enjoyed. These tax benefits are subject to investment policy by the Israeli Government Investment Center and may not be continued in the future at their current levels or at any level. In recent years the Israeli government has reduced the benefits available and has indicated that it may further reduce or eliminate some of these benefits in the future. The termination or reduction of these tax benefits or our inability to qualify for additional “Approved Enterprise” approvals may increase our tax expenses in the future, which would reduce our expected profits and adversely affect our business and results of operations. Additionally, if we increase our activities outside of Israel, for example, by future acquisitions, such increased activities generally may not be eligible for inclusion in Israeli tax benefit programs.

The Israeli government grants we have received for certain research and development expenditures restrict our ability to manufacture products and transfer technologies outside of Israel and require us to satisfy specified conditions. If we fail to satisfy these conditions, we may be required to refund grants previously received together with interest and penalties which could have a material adverse effect on our business and results of operations.

Our research and development efforts have been financed, in part, through grants that we have received from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor, or OCS. We, therefore, must comply with the requirements of the Israeli Law for the Encouragement of Industrial Research and Development, 1984 and related regulations, or the Research Law.

S-19

Risk factors

Under the Research Law, the discretionary approval of an OCS committee is required for any transfer of technology developed with OCS funding. OCS approval is not required for the export of any products resulting from the research or development, or for the licensing of the technology in the ordinary course of business. We may not receive the required approvals for any proposed transfer. Such approvals, if granted, may be subject to the following additional restrictions:

we may be required to pay the OCS a portion of the consideration we receive upon any sale of such technology to an entity that is not Israeli. The scope of the support received, the royalties that were paid by us, the amount of time that elapses between the date on which the know-how is transferred and the date on which the grants were received, as well as the sale price, will be taken into account in order to calculate the amount of the payment; and

the transfer of manufacturing rights could be conditioned upon an increase in the royalty rate and payment of increased aggregate royalties (up to 300% of the amount of the grant plus interest, depending on the percentage of the manufacturing that is foreign).

These restrictions may impair our ability to sell our technology assets or to outsource manufacturing outside of Israel. We have no current intention to manufacture or transfer technologies out of Israel. The restrictions will continue to apply even after we have repaid the full amount of royalties payable for the grants. If we fail to satisfy these conditions, we may be required to refund grants previously received together with interest and penalties which could have a material adverse effect on our business and results of operations.

Investors may have difficulties enforcing a U.S. judgment, including judgments based upon the civil liability provisions of the U.S. federal securities laws against us, our executive officers and most of our directors or asserting U.S. securities laws claims in Israel.

Most of our directors and officers are not residents of the United States and most of their assets and our assets are located outside the United States. Service of process upon our non-U.S. resident directors and officers and enforcement of judgments obtained in the United States against us, some of our directors and executive officers may be difficult to obtain within the United States. We have been informed by our legal counsel in Israel that investors may find it difficult to assert claims under U.S. securities laws in original actions instituted in Israel or obtain a judgment based on the civil liability provisions of U.S. federal securities laws against us, our officers and our directors. Israeli courts may refuse to hear a claim based on a violation of U.S. securities laws against us or our officers and directors because Israel is not the most appropriate forum to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law. There is little binding case law in Israel addressing the matters described above.

Israeli courts might not enforce judgments rendered outside Israel which may make it difficult to collect on judgments rendered against us. Subject to certain time limitations, an Israeli court may declare a foreign civil judgment enforceable only if it finds that:

the judgment was rendered by a court which was, according to the laws of the state of the court, competent to render the judgment;

the judgment may no longer be appealed;

the obligation imposed by the judgment is enforceable according to the rules relating to the enforceability of judgments in Israel and the substance of the judgment is not contrary to public policy; and

the judgment is executory in the state in which it was given.

Even if these conditions are satisfied, an Israeli court will not enforce a foreign judgment if it was given in a state whose laws do not provide for the enforcement of judgments of Israeli courts (subject to exceptional cases) or if its enforcement is likely to prejudice the sovereignty or security of the State of Israel. An Israeli court also will not declare a foreign judgment enforceable if:

the judgment was obtained by fraud;

S-20

Risk factors

there is a finding of lack of due process;

the judgment was rendered by a court not competent to render it according to the laws of private international law in Israel;

the judgment is at variance with another judgment that was given in the same matter between the same parties and that is still valid; or

at the time the action was brought in the foreign court, a suit in the same matter and between the same parties was pending before a court or tribunal in Israel.

Risks Related to Investing in Our Common Stock

The market price of our common stock may fluctuate significantly.

The market price of our common stock may fluctuate significantly in response to numerous factors, some of which are beyond our control, such as:

the announcement of new products or product enhancements by us or our competitors;

developments concerning intellectual property rights and regulatory approvals;

variations in our and our competitors' results of operations;

changes in earnings estimates or recommendations by securities analysts, if our common stock is covered by analysts;

developments in the biotechnology industry; and

general market conditions and other factors, including factors unrelated to our operating performance.

Further, the stock market in general, and the market for biotechnology companies in particular, has recently experienced price and volume fluctuations. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock. Price volatility of our common stock may be worse if the trading volume of our common stock is low. We have not paid, and do not expect to pay, any cash dividends on our common stock as any earnings generated from future operations will be used to finance our operations. As a result, investors will not realize any income from an investment in our common stock until and unless their shares are sold at a profit.

Future sales of our common stock could reduce our stock price.

Sales by shareholders of substantial amounts of our shares, the issuance of new shares by us or the perception that these sales may occur in the future, could affect materially and adversely the market price of our common stock. Some or all of the "restricted" shares of our common stock issued to former shareholders of Protalix Ltd. in connection with the merger or held by other shareholders may be offered from time to time in the open market pursuant to an effective registration statement or Rule 144, and these sales may have a depressive effect on the market for our common stock. We have agreed to use our best efforts to file a shelf registration statement with the Securities and Exchange Commission covering the resale of all shares of common stock received by Protalix Ltd.'s former shareholders after our common stock has been listed for trading on the American Stock Exchange, and to use our best efforts to cause such registration statement to be declared effective as promptly as possible after filing. We are obligated to maintain the effectiveness of this shelf registration statement until the shares registered under it are eligible for resale under Rule 144(k) of the Securities Act. This prospectus supplement is part of a registration statement filed in partial response to our obligation.

All liabilities of our company have survived the merger and there may be undisclosed liabilities that could harm our revenues, business, prospects, financial condition and results of operations.

Protalix Ltd. and its counsel conducted due diligence on us that was customary and appropriate for the reverse merger transaction consummated on December 31, 2006. However, the due diligence process may not have

S-21

Risk factors

revealed all our material liabilities then existing or that could be asserted in the future against us relating to our activities before the consummation of the merger. Any such potential liabilities survive the merger and could harm our revenues, business, prospects, financial condition and results of operations.

Trading of our common stock is limited.

Our common stock began trading on the American Stock Exchange in March 2007. To date, the liquidity of our common stock is limited, not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and changes in security analyst and media coverage, if at all. These factors may result in lower prices for our common stock than might otherwise be obtained and could also result in a larger spread between the bid and ask prices for our common stock.

In connection with the merger, substantially all of the former shareholders of Protalix Ltd. entered into lock-up agreements with respect to their shares of our common stock to satisfy Israeli tax laws and contractual obligations. The lock-up agreements prohibit such former shareholders of Protalix Ltd. from, directly or indirectly, selling or otherwise transferring the shares of our common stock issued to them in connection with the merger during a period commencing upon the closing of the merger and ending on January 1, 2009. However, during such period, each such former Protalix Ltd. shareholder may, under the terms of the lock-up agreements and the tax ruling described below, sell an aggregate of 10% of each such shareholder's original number of locked-up shares. All permitted sales of locked-up shares that may be made during such time period are cumulative. Furthermore, under applicable Israeli tax law incorporated by reference into the tax ruling obtained by Protalix Ltd. from the Israeli tax authorities, during the lock-up period, we must maintain our holding of at least 51% of Protalix Ltd. and our shareholders at the time of the consummation of the merger must maintain, in the aggregate, holdings of at least 51% of our outstanding share capital. These restrictions limit, to an extent, the volume of our shares available for public trading.

In the absence of an active public trading market, an investor may be unable to liquidate its investment in our common stock. Trading of a relatively small volume of our common stock may have a greater impact on the trading price of our stock than would be the case if our public float were larger. Further, the limited liquidity could be an indication that the trading price is not reflective of the actual fair market value of our common stock.

Directors, executive officers, principal shareholders and affiliated entities own a significant percentage of our capital stock, and they may make decisions that an investor may not consider to be in the best interests of our shareholders.

Our directors, executive officers, principal shareholders and affiliated entities beneficially own, in the aggregate, approximately 70% of our outstanding common stock. As a result, if some or all of them acted together, they would have the ability to exert substantial influence over the election of our Board of Directors and the outcome of issues requiring approval by our shareholders. This concentration of ownership may have the effect of delaying or preventing a change in control of our company that may be favored by other shareholders. This could prevent the consummation of transactions favorable to other shareholders, such as a transaction in which shareholders might otherwise receive a

premium for their shares over current market prices.

Failure to achieve and maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business and operating results. In addition, current and potential shareholders could lose confidence in our financial reporting, which could have a material adverse effect on the price of our common stock.

Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. If we cannot provide reliable financial reports or prevent fraud, our results of operation could be harmed.

Section 404 of the Sarbanes-Oxley Act of 2002 requires annual management assessments of the effectiveness of our internal controls over financial reporting and a report by our independent registered public accounting firm addressing these assessments. As of the date of the filing of this prospectus supplement, we will be required to comply with the Section 404 of the Sarbanes-Oxley Act of 2002 in connection with our annual report for the year ended December 31, 2007. We are in the process of determining whether our existing internal controls over

S-22

Risk factors

financial reporting systems are compliant with Section 404, and we may identify deficiencies that we may not be able to remediate in time to meet the deadlines imposed by the Sarbanes-Oxley Act. This process may divert internal resources and will take a significant amount of time and effort to complete.

If it is determined that we are not in compliance with Section 404, we may be required to implement new internal control procedures and reevaluate our financial reporting. We may experience higher than anticipated operating expenses as well as increased independent auditor fees during the implementation of these changes and thereafter. Further, we may need to hire additional qualified personnel. In addition, if we fail to maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act, which could result in our being unable to obtain an unqualified report on internal controls from our independent auditors, which is required under current regulation for the fiscal year ended December 31, 2007. Failure to achieve and maintain an effective internal control environment could also cause investors to lose confidence in our reported financial information, which could have a material adverse effect on the price of our common stock.

Compliance with changing regulation of corporate governance and public disclosure may result in additional expenses, divert management's attention from operating our business which could have a material adverse effect on our business.

There have been other changing laws, regulations and standards relating to corporate governance and public disclosure in addition to the Sarbanes-Oxley Act, as well as new regulations promulgated by the Commission and rules promulgated by the national securities exchanges, including the American Stock Exchange, and the NASDAQ. These new or changed laws, regulations and standards are subject to varying interpretations in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies, which could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. As a result, our efforts to comply with evolving laws, regulations and standards are likely to continue to result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to

compliance activities. Our board members, Chief Executive Officer and Chief Financial Officer could face an increased risk of personal liability in connection with the performance of their duties. As a result, we may have difficulty attracting and retaining qualified board members and executive officers, which could have a material adverse effect on our business. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies, we may incur additional expenses to comply with standards set by regulatory authorities or governing bodies which would have a material adverse effect on our business and results of operations.

We are a holding company with no operations of our own.

We are a holding company with no operations of our own. Accordingly, our ability to conduct our operations, service any debt that we may incur in the future and pay dividends, if any, is dependent upon the earnings from the business conducted by Protalix Ltd., our only subsidiary. The distribution of those earnings or advances or other distributions of funds by our subsidiary to us, as well as our receipt of such funds, are contingent upon the earnings of our subsidiary and are subject to various business considerations and United States and Israeli law. If Protalix Ltd. is unable to make sufficient distributions or advances to us, or if there are limitations to our ability to receive such distributions or advances, we may not have the cash resources necessary to conduct our corporate operations which would have a material adverse effect on our business and results of operations.

S-23

Use of proceeds

Based on the public offering price of \$35.00 per share, we estimate that we will receive total net proceeds from this offering of \$121.0 million, after deducting the underwriters' discount and commissions and estimated offering expenses payable by us.

We will retain broad discretion over the use of the net proceeds of the securities offered by us hereby. The net proceeds from the securities sold by us will be added to our general corporate funds and may be used for research and development expenses, clinical trials, establishing an internal sales force and general corporate and administrative purposes. We expect to use a portion of the proceeds of the offering in connection with the construction and furnishing of a new manufacturing facility. A substantial portion of the construction expenses of such proposed facility are anticipated to be financed through a bank loan. Until the net proceeds have been used, they will be invested in short-term marketable securities.

We will not receive any proceeds from the sale of securities by any selling securityholder.

S-24

Selected financial data

The selected consolidated financial data below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in this prospectus supplement and our consolidated financial statements and the related notes included in our Annual Report on Form 10-K, as amended, for

the year ended December 31, 2006, and our quarterly report on Form 10-Q for the quarters ended March 31, 2007, and June 30, 2007. The selected consolidated statements of operations data for the years ended December 31, 2006, 2005 and 2004 and for the period from December 27, 1993 through December 31, 2006 and the selected consolidated balance sheet data as of December 31, 2006 and 2005, are derived from, and are qualified by reference to, the audited consolidated financial statements included in our Annual Report. The statement of operations data for the years ended December 31, 2002 and 2003 and the balance sheet data as of December 31, 2002, 2003 and 2004 are derived from audited financial statements not included in our Annual Report. The selected financial information as of and for the six month periods ended June 30, 2006 and 2007 have been derived from unaudited financial statements, which include all adjustments consisting of normal recurring accruals that we consider necessary for a fair presentation of the financial position and results of operation for these periods. The historical results presented below are not necessarily indicative of future results.

S-25

Selected financial data

	Year ended December 31,					Six months ended June 30,		Period from Dec. 27, 1993 through June 30, 2007
	2002	2003	2004	2005	2006	2006	2007	
	(in thousands, except share and per share amounts)					(Unaudited)		
Consolidated Statement of Operations								
Data:								
Revenues	—	\$250	\$430	\$150	—	—	—	\$830
Cost of revenues	—	51	120	35	—	—	—	206
Gross profit	—	199	310	115	—	—	—	624
Research and development expenses, net	\$375	239	1,920	3,773	\$5,246	\$1,789	\$4,626	17,171
General and administrative expenses	502	603	807	2,131	4,525	1,710	8,490	17,486
Finance expense (income)	(11)) 3	4	(43)) (344)) (35)) (506)) (874)
Other income	—	—	—	—	—	—	(6)	(6)
Net loss before change in accounting principle	\$866	\$646	\$2,421	\$5,746	\$9,427	\$3,464	\$12,604	\$33,153
Cumulative effect of change in accounting principle			—	—	(37)) (37))	(37)

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

Net loss	\$866	\$646	\$2,421	\$5,746	\$9,390	\$3,427	\$12,604	\$33,116
Net loss per share of common stock, basic and diluted:								
Prior to cumulative effect of change in accounting principle	\$0.05	\$0.03	\$0.13	\$0.31	\$0.32	\$0.18	\$0.19	
Cumulative effect of change in accounting principle	—	—	—	—		*	*	
Net loss per share of common stock, basic and diluted ⁽¹⁾	\$0.05	\$0.03	\$0.13	\$0.31	\$0.32	\$0.18	\$0.19	
Weighted average number of shares of common stock used in computing net loss per share of common stock ⁽²⁾	18,801,527	18,801,527	18,801,527	18,801,527	29,300,987	18,801,527	65,032,809	
Consolidated Balance Sheet								
Data:								
Cash and cash equivalents	\$215	\$1,261	\$1,477	\$4,741	\$15,378	\$2,003	\$22,489	
Other assets	281	464	2,478	2,484	11,610	3,381	5,871	
Total assets	496	1,725	3,955	7,225	26,988	5,384	28,360	
Current liabilities	343	290	1,246	845	2,268	979	2,699	
Liabilities	390	1,431	2,480	1,130	2,704	1,339	3,262	
Shareholders' equity	106	294	1,475	6,095	24,284	4,045	25,098	

*

Represents less than \$1.

(1)

Reflects the retroactive effects of the impact of our merger with Protalix Ltd. and the resulting exchange of shares of common stock for the ordinary shares of Protalix Ltd. at an exchange ratio of approximately 61.08 shares of our common stock per ordinary share of Protalix Ltd. for all periods presented.

(2)

In connection with the merger, we effected a one-for-ten reverse stock split, therefore all share numbers presented in this prospectus supplement give retroactive effect to the reverse stock split.

S-26

Management's discussion and analysis of financial condition and results of operations

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes included in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2006 and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2007, and June 30, 2007. Some of the information contained in this discussion and analysis, particularly with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should read "Risk Factors" included elsewhere in this prospectus supplement and the accompanying prospectus for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a biopharmaceutical company focused on the development and commercialization of recombinant therapeutic proteins based on ProCellEx, our proprietary protein expression system. Using our ProCellEx protein expression system, we are developing a pipeline of proprietary recombinant therapeutic proteins based on our plant cell-based expression technology that target large, established pharmaceutical markets and that rely upon known biological mechanisms of action. Our initial commercial focus has been on complex therapeutic proteins, including proteins for the treatment of genetic disorders, such as Gaucher disease and Fabry disease, and female infertility disorders. We believe our ProCellEx protein expression system will enable us to develop proprietary recombinant proteins that are therapeutically equivalent or superior to existing recombinant proteins currently marketed for the same indications. Because we are targeting biologically equivalent versions of highly active, well-tolerated and commercially successful therapeutic proteins, we believe our development process is associated with relatively less risk compared to other biopharmaceutical development processes for novel therapeutic proteins.

Our lead product development candidate is prGCD for the treatment of Gaucher disease, which we are developing using our ProCellEx protein expression system. We received authorization from the FDA in April 2007 to commence a pivotal phase III clinical trial of prGCD and subsequently submitted to the FDA a request for a special protocol assessment (SPA) of the final design of the pivotal phase III clinical trial. In July 2007, we reached an agreement with the FDA on the final design that we submitted in the SPA request and in the third quarter of 2007, we initiated enrollment and treatment of patients in our phase III clinical trial of prGCD. prGCD is our proprietary recombinant form of Glucocerebrosidase (GCD), an enzyme naturally found in human cells that is mutated or deficient in patients with Gaucher disease. The current standard of care for Gaucher disease is enzyme replacement therapy, a medical treatment in which GCD is replaced for patients in whom the enzyme is lacking or dysfunctional. Although Gaucher is a relatively rare disease, it represents a large commercial market due to the severity of the symptoms and the chronic nature of the disease. The annual worldwide sales of Cerezyme, an enzyme replacement therapy produced by

Genzyme and currently the only approved enzyme replacement therapy for Gaucher disease, were approximately \$1 billion in 2006, and \$546.8 million for the six months ended June 30, 2007, according to public reports by Genzyme.

In addition to prGCD, we are developing an innovative product pipeline using our ProCellEx protein expression system, including therapeutic protein candidates for the treatment of Fabry disease and female infertility disorders. We plan to file an investigational new drug application (IND) with the FDA with respect to at least one additional product during 2008. Because these product candidates are based on well-understood proteins with known biological mechanisms of action, we believe we may be able to reduce the development risks and time to market for such product candidates. We hold the worldwide commercialization rights to our proprietary development candidates and we intend to establish an internal, commercial infrastructure and targeted sales force to market our products, if approved, in North America, the European Union and in other significant markets, including Israel.

Our business is conducted by our wholly owned subsidiary, Protalix Ltd., which we acquired through a reverse merger transaction effective December 31, 2006. The accounting treatment for the merger transaction was a

S-27

Management's discussion and analysis of financial condition and results of operations

recapitalization and as such the results of operations discussed below are those of Protalix Ltd. Prior to the merger transaction, we had not conducted any operations for several years. Protalix Ltd. was originally incorporated in Israel in December 1993. Since its inception in December 1993, Protalix Ltd. has generated significant losses in connection with its research and development, including the clinical development of prGCD. At June 30, 2007, we had an accumulated deficit of \$33.1 million. Since we do not generate revenue from any of our product candidates, we expect to continue to generate losses in connection with the continued clinical development of prGCD and the research and development activities relating to our technology and other drug candidates. Such research and development activities are budgeted to expand over time and will require further resources if we are to be successful. As a result, we believe that our operating losses are likely to be substantial over the next several years. We will need to obtain additional funds to further develop our research and development programs.

Critical Accounting Policies

Our significant accounting policies are more fully described in Note 1 to each of our consolidated financial statements appearing at the end of our Annual Report on Form 10-K, as amended, for the year ended December 31, 2006, and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2007, and June 30, 2007. We believe that the accounting policies below are critical for one to fully understand and evaluate our financial condition and results of operations.

The discussion and analysis of our financial condition and results of operations is based on our financial statements, which we prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us 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, as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate such estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Functional CurRency

The currency of the primary economic environment in which our operations are conducted is the dollar. As a development stage company with no significant source of revenues, we considered the currency of the primary economic environment to be the currency in which we expend cash. Most of our expenses and capital expenditures are incurred in dollars, and a significant source of our financing has been provided in U.S. dollars.

Research and Development Expense

We expect our research and development expense to increase as we continue to develop our product candidates. Research and development expense consists of:

internal costs associated with research and development activities;

payments made to third party contract research organizations, contract manufacturers, investigative sites and consultants;

manufacturing development costs;

personnel-related expenses, including salaries, benefits, travel, and related costs for the personnel involved in research and development;

activities relating to the advancement of product candidates through preclinical studies and clinical trials; and

facilities and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, as well as laboratory and other supplies.

S-28

Management's discussion and analysis of financial condition and results of operations

These costs and expenses are partially funded by grants we received from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor, or the OCS. Each grant is deducted from the related research and development expenses as the costs are incurred. For additional information regarding the grant process, see "Business — Israeli Government Programs — Encouragement of Industrial Research and Development Law, 1984" in this prospectus supplement. There can be no assurance that we will continue to receive grants from the OCS in amounts sufficient for our operations, if at all.

We have multiple research and development projects ongoing at any one time. We utilize our internal resources, employees and infrastructure across multiple projects and track time spent by employees on specific projects. We are required to do so by the OCS in order to qualify for the grants we receive for our different projects. We expense research and development costs as incurred. We believe that significant investment in product development is a competitive necessity and plan to continue these investments in order to realize the potential of our product candidates. From inception in December 1993 through June 30, 2007, we have incurred gross research and development expenses in the aggregate of \$23.4 million, which includes salaries and related expenses equal to \$10.1 million (of which share-based compensation was \$2.6 million), subcontractors expenses of \$3.7 million, and expenses relating to materials and consumables of \$3.7 million. These expenses were partially offset by grants received from the OCS totaling \$6.2 million. We expect our research and development expenditures to increase significantly in the near future in connection with our phase III clinical trial of prGCD. Over the next 12 months, we expect to spend a minimum of approximately \$8 million on preclinical and clinical development for our products under development.

General and Administrative Expense

General and administrative expense consists primarily of salaries and other related costs, including share-based compensation expense, for persons serving as our executive, finance, accounting and administration functions. Other general and administrative expense includes facility-related costs not otherwise included in research and development expense, costs associated with industry and trade shows and professional fees for legal and accounting services. We expect that our general and administrative expenses will increase as we add additional personnel and continue to comply with the reporting and other obligations applicable to public companies in the United States. From inception in December 1993 through June 30, 2007, we have spent \$17.2 million on general and administrative expense, including share-based compensation expense of \$11.1 million for options granted to employees and consultants.

Financial Expense and Income

Financial Expense and Income consists of the following:

interest earned on our cash and cash equivalents;

interest expense on short term bank credit and loan; and

expense or income resulting from fluctuations of the New Israeli Shekel (NIS), in which a portion of our assets and liabilities are denominated, against the United States Dollar and other foreign currencies.

Share-Based Compensation

The discussion below regarding share-based compensation relates to share-based compensation paid by Protalix Ltd., our wholly-owned subsidiary.

Until December 31, 2005, we accounted for employee share-based compensation in accordance with Accounting Principles Board (“APB”) Opinion No. 25, “Accounting for Stock Issued to Employees” (“APB 25”), and related interpretations. Under APB 25, compensation expense is based on the difference, if any, on the date of the grant, between the fair value of our ordinary shares and the exercise price. In addition, in accordance with Statement of

Financial Accounting Standards (“SFAS”) No. 123, “Accounting for Stock-Based Compensation” (“SFAS 123”), we disclosed pro forma data assuming we had accounted for employee share option grants using the fair value-based method defined in SFAS 123.

S-29

Management’s discussion and analysis of financial condition and results of operations

We apply Emerging Issue Task Force (“EITF”) 96-18, “Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services” with respect to options granted in consideration of services granted by consultants.

As of January 1, 2006, we adopted SFAS No. 123 (Revised 2004), “Share-Based Payment” (“SFAS 123R”), using the modified prospective method. This new standard requires measurement of share-based compensation cost for all share-based awards at the fair value on the grant date and recognition of share-based compensation over the service period for awards that we expect will vest. The fair value of stock options is determined based on the number of shares granted and the price of our ordinary shares, and calculated based on the Black-Scholes valuation model, which is consistent with our valuation techniques previously utilized for options in footnote disclosures required under SFAS 123, as amended by SFAS No. 148, “Accounting for Stock-Based Compensation — Transition and Disclosure.” We recognize such value as expense over the service period, net of estimated forfeitures, using the accelerated method under SFAS 123R. Due to our adoption of SFAS 123R, we no longer have employee share-based compensation awards subject to variable accounting treatment. The cumulative effect of our adoption of SFAS 123R, as of January 1, 2006, was not material.

The following table illustrates the pro forma effect on loss and loss per share assuming we had applied the fair value recognition provisions of SFAS 123 to our share-based employee compensation:

	Year Ended December 31,		Period from December 27, 1993 through December 31, 2005
	2004	2005	
	(in thousands, except per share data)		
Net loss as reported	\$(2,421)	\$(5,746)	\$(11,122)
Add: share based employee compensation expense included in the reported net loss	149	509	732
Deduct: share-based employee compensation expense determined under fair value method	(170)	(539)	(788)
Pro forma net loss	\$(2,442)	\$(5,776)	\$(11,178)
Net loss per share of common stock:			
Basic – as reported	\$(0.13)	\$(0.31)	
Basic – pro forma	\$(0.13)	\$(0.31)	
Diluted – as reported	\$(0.13)	\$(0.31)	
Diluted – pro forma	\$(0.13)	\$(0.31)	

The fair value of options granted to employees during 2005 was \$939,000. No options were granted during 2004. The fair value of each option granted is estimated on the date of grant using the Black-Scholes option-pricing model, with

the following weighted average assumptions (determined as described following the table):

	2005	2006
Dividend yield	0	% 0%
Expected volatility	54	% 44%
Risk-free interest rate	3.83	% 4.77%
Expected life – in years	5.7	5.9

Protalix Ltd. had multiple classes of stock before the conversion of all preferred shares into ordinary shares in September 2006. Through December 31, 2005, Protalix Ltd. considered the three commonly used methods described by the American Institute of Certified Public Accountants (the ‘‘AICPA’’) practice aid, ‘‘Valuation of Privately-Held Company Equity Securities Issued as Compensation,’’ and determined that the Probability-Weighted Expected Return Method is the appropriate method to value its securities. We chose this method because it is forward-looking and incorporates future economic events and outcomes into the determination of value at the time of calculation. The method is limited, as are all forward-looking methods, in that it relies on a number of assumptions.

S-30

Management’s discussion and analysis of financial condition and results of operations

Under the Probability-Weighted Expected Return Method, the value of the ordinary shares of Protalix Ltd. is estimated based upon an analysis of future values for the enterprise assuming various future outcomes. Share value is based upon the probability-weighted present value of expected future investment returns, considering each of the possible future outcomes available to the enterprise, as well as the rights of each share class. Although the future outcomes considered in any given valuation model will vary based upon the enterprise’s facts and circumstances, common future outcomes modeled might include an initial public offering, merger or sale, dissolution or continued operation as a viable private enterprise.

The Probability-Weighted Expected Return Method analysis presents value afforded to shareholders under four possible scenarios. Three of the scenarios assume a shareholder realization, either through an initial public offering, sale, merger or liquidation. The last scenario assumes operations continue as a private company and no realization transaction occurs. Fair value calculations of the ordinary shares of Protalix Ltd. were performed for dates close to the dates on which preferred shares were issued to third parties. We considered the issuance price of each series of preferred shares to third parties in the calculation of the fair value of the ordinary shares. For each of the first three realization scenarios, estimated future and present values for each of the share classes were calculated utilizing assumptions which consisted of the following:

expected pre-money value at the realization date;

standard deviation around the above pre-money value;

expected date of the realization scenario occurring;

standard deviation around the expected realization scenario occurrence date (in days); and

an appropriate risk-adjusted discount rate.

SFAS 123R allows companies to estimate the expected term of the option rather than simply using the contractual term of an option. Because of lack of data on past option exercises by employees, the expected term of the options could not be based on historic exercise patterns. Accordingly, we adopted the simplified method as stipulated in the Securities and Exchange Commission Staff Accounting Bulletin (“SAB”) No. 107, “Share-Based Payment” (“SAB 107”), according to which companies that cannot provide a good estimation regarding their options’ expected life, may calculate the expected term as the average between the vesting date and the expiration date, assuming the option was granted as a “plain vanilla” option.

SAB 107 defines “plain vanilla share options” as those having the following characteristics:

share options are granted at the money;

exercisability is conditional only on performing service through the vesting date;

if an employee terminates service prior to vesting, the employee forfeits the share options;

if an employee terminates service after vesting, the employee has a limited period of time (typically 30-90 days) to exercise the share options; and

share options are nontransferable and nonhedgeable.

All of the outstanding options granted by Protalix Ltd. were granted at an exercise price that was lower than the then share price. Accordingly, we assumed that the exercise period will on average be shorter than the average period between the vesting and the expiration of the options. However, due to the lack of information regarding exercise behavior, we implemented the methodology proposed above for the calculation of the expected term for all grants including those that were “in the money.”

In performing the valuation, we assumed an expected 0% dividend yield in the previous years and in the next years. We do not have a dividend policy and given our development stage, dividends are not expected in the foreseeable future, if at all. SFAS 123R stipulates a number of factors that should be considered when estimating the expected volatility, including the implied volatility of traded options, historical volatility and the period that the shares of the company are being publicly traded. As we do not have any traded shares or options, the expected volatility figures used in this valuation have been calculated by using the historical volatility of traded

S-31

Management's discussion and analysis of financial condition and results of operations

shares of similar companies. In addition, we examined the standard deviation of shares of similar biotechnology companies that engage in research and development, generally in the development stage. We found that the standard deviation of the shares of comparable companies was in the range of 40% – 60% over periods of three to six years. The volatility used for each grant differed based on its expected term. For the term of each grant of our options, the historical volatility was calculated based upon the overall trading history of the common stock of comparable companies.

The risk-free interest rate in the table above has been based on the implied yield of U.S. federal reserve zero- coupon government bonds. The remaining term of the bonds used for each valuation was equal to the expected term of the grant. This methodology has been applied to all grants valued by us. SFAS 123R requires the use of a risk-free interest rate based on the implied yield currently available on zero-coupon government issues of the country in whose currency the exercise price is expressed, with a remaining term equal to the expected life of the option being valued. This requirement has been applied for all grants valued as part of this report.

Results of Operations

Six months ended June 30, 2007 compared to the six months ended June 30, 2006

Research and Development Expenses

Research and development expenses were \$5.7 million for the six months ended June 30, 2007, an increase of \$3.1 million, or 119%, from \$2.6 million for the six months ended June 30, 2006. The increase resulted primarily from the increase of \$1.9 million in salaries for new and existing employees and related consulting and materials associated with research and development. This increase was partially offset by \$259,000 from grants from the OCS equal to \$1.1 million during the six months ended June 30, 2007, compared to grants equal to \$822,000 during the six months ended June 30, 2006. In addition, the increase resulted from a \$790,000 increase in share-based compensation resulting primarily from a grant made during the three months ended June 30, 2007 to a newly hired executive officer.

We expect research and development expenses to continue to increase as we enter into a more advanced stage of clinical trials for our product candidates, especially with respect to our phase III clinical trial of prGCD.

General and Administrative Expenses

General and administrative expenses were \$8.5 million for the six months ended June 30, 2007, an increase of \$6.8 million, or approximately 396%, from \$1.7 for the six months ended June 30, 2006. The increase resulted primarily from a \$5.9 million increase in share-based compensation resulting from the increase in the fair value of the Common Stock underlying the portions of certain outstanding stock options granted to consultants that vested during the three-month period ended June 30, 2007.

Financial Expenses and Income

Financial income was \$506,000 for the six months ended June 30, 2007, an increase of \$471,000, compared to \$35,000 for the six months ended June 30, 2006. The increase resulted primarily from a higher balance of cash and cash equivalents as of June 30, 2007, which primarily resulted from the interest income earned on the proceeds

generated from the sale of ordinary shares of Protalix Ltd. in September 2006 and the exercise of warrants in January 2007.

Year Ended December 31, 2006 Compared to the Year Ended December 31, 2005

Revenues

No revenues were recorded during the year ended December 31, 2006. Revenues were \$150,000 for the year ended December 31, 2005. The revenues were generated in connection with our achievement of development milestones under a research and development program with a third party. This program was completed during fiscal year 2005, and \$150,000 of development milestones payments payable to us in connection therewith were made in 2005.

S-32

Management's discussion and analysis of financial condition and results of operations

Research and Development Expenses

Research and development expenses were \$7.0 million for the year ended December 31, 2006, an increase of \$2.3 million, or 49%, from \$4.7 million for the year ended December 31, 2005. The increase resulted primarily from the increase of \$1.2 million in development expenses related to salaries for personnel involved in research and development and \$0.7 million in related materials and general development expenses. The increase in research and development expenses was partially offset by the recognition of grants equal to \$1.8 million from the OCS during 2006, an increase of \$800,000 compared to the recognition of grants equal to \$900,000 during 2005.

We expect research and development expenses to continue to increase as we enter into a more advanced stage of clinical trials for our product candidates, especially with respect to our phase III clinical trial of prGCD.

General and Administrative Expenses

General and administrative expenses were \$4.5 million for the year ended December 31, 2006, an increase of \$2.4 million, or approximately 114%, from \$2.1 million for the year ended December 31, 2005. The increase resulted primarily from a \$1.5 million increase in share-based compensation due to the application of SFAS 123R, resulting from additional stock option awards granted in 2006.

Financial Expenses and Income

Financial income was \$344,000 for the year ended December 31, 2006, an increase of \$301,000, compared to \$43,000 for the year ended December 31, 2005. The increase resulted primarily from a higher balance of cash and cash equivalents during the latter period, primarily the result of the proceeds generated from the sale of ordinary shares of Protalix Ltd. in September 2006, which resulted in higher interest income.

Year Ended December 31, 2005 Compared to Year Ended December 31, 2004

Revenues

Revenues were \$150,000 for the year ended December 31, 2005, a decrease of \$280,000, or 65%, from \$430,000 for the year ended December 31, 2004. The revenues were generated in connection with our achievement of development milestones under the research and development program with a third party that was completed during fiscal year 2005.

The decrease resulted primarily from our achievement of more significant development milestones under the program during 2004 compared to 2005.

Research and Development Expenses

Research and development expenses were \$4.7 million for the year ended December 31, 2005, an increase of \$2.2 million, or 88%, from \$2.5 million for the year ended December 31, 2004. The increase resulted primarily from an increase of \$1.2 million in development expenses related to salaries and related consulting and materials associated with the development of prGCD. The increase was incurred in connection with the higher costs associated with the end of our preclinical trials and with the initiation of our phase I clinical trial of prGCD during 2005. In addition, we incurred a \$498,000 increase in share-based compensation. The increase was partially offset by a \$362,000 increase in grant funds we received from the OCS; we received grants equal to \$935,000 during 2005 compared to grants equal to \$573,000 during 2004.

General and Administrative Expenses

General and administrative expenses were \$2.1 million for the year ended December 31, 2005, an increase of \$1.3 million, or 165%, from \$807,000 for the year ended December 31, 2004. The difference resulted primarily from a \$1.1 million increase in share-based compensation.

Financial Expenses and Income

Financial income was \$43,000 for the year ended December 31, 2005, compared to an expense of \$4,000 for the year ended December 31, 2004. The increase resulted primarily from the higher balance of cash and cash equivalents held during such periods and the incurrence of interest expense in connection with a \$1.0 million loan.

S-33

Management's discussion and analysis of financial condition and results of operations

Liquidity and Capital Resources

Sources of Liquidity

As a result of our significant research and development expenditures and the lack of any approved products to generate product sales revenue, we have not been profitable and have generated operating losses since our inception. To date, we have funded our operations primarily with proceeds equal to \$31.3 million from the sale of convertible preferred and ordinary shares of Protalix Ltd., and an additional \$8.9 million in connection with the exercise of warrants issued in connection with the sale of such ordinary shares, through December 31, 2006. In addition, on January 31, 2007, we received proceeds equal to \$5.3 million in connection with the exercise of warrants issued in connection with a private placement effected by Protalix Ltd. in September 2006. We believe that the funds currently available to us are sufficient to satisfy our capital needs for the next 12 months.

The following table summarizes our past funding sources:

Security	Year	Number of Shares	Amount ⁽¹⁾
Ordinary Shares	1996-2000	18,801,527 ⁽²⁾	\$1,100,000
Series A Convertible Preferred Shares	2001	11,635,090	\$2,000,000

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

Series B Convertible Preferred Shares ⁽³⁾	2004-2005	7,225,357	\$4,500,000
Series C Convertible Preferred Shares ⁽⁴⁾	2005	5,513,422	\$7,700,000
Ordinary Shares ⁽⁵⁾	2006	10,637,686	\$16,000,000

(1)

Gross proceeds; does not include proceeds from warrant exercises.

(2)

Includes the issuance of ordinary shares to founders.

(3)

During 2005, 1,035,569 Series B Preferred Shares were converted on a 1:1 basis into Series C Preferred Shares for no additional consideration. Also, in connection with such funding, warrants to purchase 181,228 Series B Preferred Shares were issued for no additional consideration with a total exercise price of \$100,000. As of the closing date of the merger, 168,034 of such warrants were exercised for net proceeds equal to approximately \$96,000 and 13,194 of such warrants have been forfeited.

(4)

In connection with such funding, warrants to purchase an additional 8,862,803 Series C Preferred Shares were granted to the investors for no additional consideration with an aggregate exercise price equal to \$9.0 million. As of the closing date of the merger, 5,296,279 of such warrants were exercised for net proceeds equal to \$8.7 million, 3,384,502 were assumed by our company and 182,022 expired.

(5)

In connection with such funding, warrants to purchase 3,875,416 ordinary shares were issued for no additional consideration with an aggregate exercise price equal to \$5.3 million. These warrants were exercised in full on January 31, 2007.

Cash Flows

Net cash used in operations was \$4.9 million for the six months ended June 30, 2007. The net loss for the six months ended June 30, 2007 of \$12.6 million was partially offset by \$8.1 million of non-cash share-based compensation but was increased due to an increase in accounts receivable of \$941,000, mainly due to grants to be received from the OCS. Net cash used in investing activities for the six months ended June 30, 2007 was \$844,000 and consisted primarily of purchases of property and equipment. Net cash provided by financing activities for the six months ended June 30, 2007 was \$12.9 million, consisting of the proceeds from the exercise of certain warrants.

Net cash used in operations was \$2.3 million for the six months ended June 30, 2006. The net loss for the three months ended June 30, 2006 of \$3.5 million was mainly offset by \$1.4 million of non-cash share-based compensation. Net cash used in investing activities for the six months ended June 30, 2006 was \$485,000 and consisted primarily of purchases of property and equipment.

Net cash used in operations was \$5.1 million for the year ended December 31, 2006. The net loss for 2006 of \$9.4 million was mainly offset by non-cash charges for share-based compensation of \$3.4 million, an increase in accounts payable of \$1.3 million and depreciation of \$502,000. Net cash used in investing activities for 2006 was

\$1.0 million and consisted primarily of purchases of property and equipment. Net cash provided by financing activities for 2006 was \$16.7 million, consisting mainly of net proceeds of \$14.9 million from the sale of ordinary shares of Protalix Ltd.

S-34

Management's discussion and analysis of financial condition and results of operations

Net cash used in operations was \$3.2 million for the year ended December 31, 2005. The net loss for 2005 of \$5.7 million was mainly offset by \$1.9 million of non-cash share-based compensation, a decrease in accounts receivable of \$400,000 and depreciation equal to \$311,000. Net cash used in investing activities for 2005 was \$903,000 and consisted primarily of \$844,000 for purchases of property and equipment. Net cash provided from financing activities for 2005 was \$7.4 million, which consisted primarily of net proceeds of \$8.4 million from the sale of Series C Preferred Shares, which was partially offset by the repayment of a \$1.0 million loan.

Future Funding Requirements

We expect to incur losses from operations for the foreseeable future. We expect to incur increasing research and development expenses, including expenses related to the hiring of personnel and additional clinical trials. We expect that general and administrative expenses will also increase as we expand our finance and administrative staff, add infrastructure, and incur additional costs related to being a public company in the United States, including the costs of directors' and officers' insurance, investor relations programs, and increased professional fees. In addition, we are considering a new manufacturing facility that would meet the FDA requirements for the manufacture of our product candidates, which would increase our capital expenditures significantly.

We believe that our existing cash and cash equivalents and short-term investments will be sufficient to enable us to fund our operating expenses and capital expenditure requirements for at least for the next 12 months. We have based this estimate on assumptions that are subject to change and may prove to be wrong, and we may be required to use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials.

Our future capital requirements will depend on many factors, including the progress and results of our clinical trials, the duration and cost of discovery and preclinical development, and laboratory testing and clinical trials for our product candidates, the timing and outcome of regulatory review of our product candidates, the costs involved in preparing, filing, prosecuting, maintaining, defending, and enforcing patent claims and other intellectual property rights, the number and development requirements of other product candidates that we pursue, and the costs of commercialization activities, including product marketing, sales and distribution.

We will need to finance our future cash needs through public or private equity offerings, debt financings, or corporate collaboration and licensing arrangements. We currently do not have any commitments for future external funding. We may need to raise additional funds more quickly if one or more of our assumptions prove to be incorrect or if we choose to expand our product development efforts more rapidly than we presently anticipate. We may also decide to raise additional funds even before we need them if the conditions for raising capital are favorable. The sale of additional equity or debt securities will likely result in dilution to our shareholders. The incurrence of indebtedness would result in increased fixed obligations and could also result in covenants that would restrict our operations. Additional equity or debt financing, grants, or corporate collaboration and licensing arrangements may not be available on acceptable terms, if at all. If adequate funds are not available, we may be required to delay, reduce the

scope of or eliminate our research and development programs, reduce our planned commercialization efforts or obtain funds through arrangements with collaborators or others that may require us to relinquish rights to certain product candidates that we might otherwise seek to develop or commercialize independently.

Effects of Inflation and Currency Fluctuations

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation has had a material effect on our results of operations during the years ended December 31, 2004, 2005 or 2006, or during the six months ended June 30, 2007, or June 30, 2006, respectively.

Currency fluctuations could affect us by increased or decreased costs mainly for goods and services acquired outside of Israel. We do not believe currency fluctuations have had a material effect on our results of operations during the years ended December 31, 2004, 2005 or 2006 or during the six months ended June 30, 2007, or June 30, 2006, respectively.

S-35

Management's discussion and analysis of financial condition and results of operations

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as of December 31, 2005 and 2006 or as of June 30, 2006 and 2007. See Note 5 of our consolidated financial statements included with our Annual Report on Form 10-K, as amended, for the year ended December 31, 2006, for a full description of certain contingent royalty payments.

Recently Issued Accounting Pronouncements

In June 2006, the Financial Accounting Standards Board (the "FASB") issued FASB Interpretation ("FIN") No. 48, "Accounting for Uncertainty in Income Taxes", an interpretation of SFAS 109, "Accounting for Income Taxes." FIN 48 prescribes a comprehensive model for recognizing, measuring, presenting, and disclosing in the financial statements tax positions taken or expected to be taken on a tax return, including a decision whether to file or not to file in a particular jurisdiction. FIN 48 is effective for fiscal years beginning after December 15, 2006 (January 1, 2007 for us). If there are changes in net assets as a result of application of FIN 48, these will be accounted for as an adjustment to retained earnings. We believe that the application of FIN 48 will not have a material effect on our financial position and results of operations.

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" ("SFAS 157"). SFAS 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. The provisions of SFAS 157 are effective commencing upon the fiscal year beginning after September 1, 2008. We are currently evaluating the impact of the provisions of SFAS 157 on our financial position and results of operations.

In September 2006, the SEC released SAB No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements", which provides interpretive guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of a materiality assessment. We are required to initially apply SAB No. 108 during fiscal year 2007. The application of SFAS 108 did not have a material effect on our financial position and results of operations as of December 31, 2006.

On February 15, 2007, the FASB issued SFAS No. 159, “The Fair Value Option for Financial Assets and Financial Liabilities” (“SFAS 159”). Under this SFAS 159, we may elect to report financial instruments and certain other items at fair value on a contract-by-contract basis with changes in value reported in earnings. This election is irrevocable. SFAS 159 provides an opportunity to mitigate volatility in reported earnings that is caused by measuring hedged assets and liabilities that were previously required to use a different accounting method than the related hedging contracts when the complex provisions of SFAS 133 hedge accounting are not met. SFAS 159 is effective for years beginning after November 15, 2007. Early adoption within 120 days of the beginning of the 2007 fiscal year is permissible, provided a company has not yet issued interim financial statements for 2007 and has adopted SFAS 157. We do not intend to adopt SFAS 157 early, and we are currently evaluating the impact of adopting SFAS 159 on our financial position, cash flows, and results of operations.

In June 2007, the Emerging Issues Task Force (“EITF”) issued EITF 07-3, “Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities” (“EITF 07-3”). EITF 07-3 addresses the diversity that exists with respect to the accounting for the non-refundable portion of a payment made by a research and development entity for future research and development activities. The EITF concluded that an entity must defer and capitalize non-refundable advance payments made for research and development activities until the related goods are delivered or the related services are performed. EITF 07-3 is effective for interim or annual reporting periods in fiscal years beginning after December 15, 2007 (January 1, 2008 for our company). We are currently evaluating the impact of adopting EITF 07-03 on our financial statements and results of operations.

S-36

Management’s discussion and analysis of financial condition and results of operations

Contractual Obligations

The following table summarizes our significant contractual obligations at September 30, 2007:

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	\$696	\$333	\$362	\$1	—
Purchase obligations	\$3,511	\$3,511	—	—	—
Other long term liabilities reflected on the balance sheet under GAAP	\$629	—	—	—	\$629

Selected Quarterly Financial Data (unaudited)

	Three Months Ended,				2006				2007	
	2005 March 31	June 30	Sept. 30	Dec. 31	March 31	June 30	Sept. 30	Dec. 31	March 31	June 30
Revenues	\$150	—	—	—	—	—	—	—	—	—
Cost of revenues	35	—	—	—	—	—	—	—	—	—
Gross profit	115	—	—	—	—	—	—	—	—	—
Net loss before change in accounting principle	\$957	\$1,092	\$1,767	\$1,930	\$1,596	\$1,868	\$2,499	\$3,464	\$3,450	\$9,154
Cumulative effect of change in accounting principle	—	—	—	—	(37)	—	—	—	—	—

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

Net loss for the period	\$957	\$1,092	\$1,767	\$1,930	\$1,559	\$1,868	\$2,499	\$3,464	\$3,450	\$9,154
Net loss per share of common stock, basic and diluted prior to cumulative effect of change in accounting principle	\$0.05	\$0.06	\$0.09	\$0.10	\$0.08	\$0.10	\$0.12	\$0.06	\$0.05	\$0.14
Cumulative effect of change in accounting principle	—	—	—	—	—	—	—	—	—	—
Net loss per share of common stock	\$0.05	\$0.06	\$0.09	\$0.10	\$0.08	\$0.10	\$0.12	\$0.06	\$0.05	\$0.14

S-37

Business

We are a biopharmaceutical company focused on the development and commercialization of recombinant therapeutic proteins based on our proprietary ProCellEx™ protein expression system. Using our ProCellEx system we are developing a pipeline of proprietary recombinant therapeutic proteins based on our plant cell-based expression technology that target large, established pharmaceutical markets and that rely upon known biological mechanisms of action. Our initial commercial focus has been on complex therapeutic proteins, including proteins for the treatment of genetic disorders, such as Gaucher disease and Fabry disease, and female infertility disorders. We believe our ProCellEx protein expression system will enable us to develop proprietary recombinant proteins that are therapeutically equivalent or superior to existing recombinant proteins currently marketed for the same indications. Because we are targeting biologically equivalent versions of highly active, well-tolerated and commercially successful therapeutic proteins, we believe our development process is associated with relatively less risk compared to other biopharmaceutical development processes for novel therapeutic proteins.

Our lead product development candidate is prGCD for the treatment of Gaucher disease, which we are developing using our ProCellEx protein expression system. In July 2007, we reached an agreement with the United States Food and Drug Administration, or the FDA, on the final design of our pivotal phase III clinical trial of prGCD, through the FDA's special protocol assessment (SPA) process. In the third quarter of 2007, we initiated enrollment and treatment of patients in our phase III clinical trial of prGCD. prGCD is our proprietary recombinant form of Glucocerebrosidase (GCD), an enzyme naturally found in human cells that is mutated or deficient in patients with Gaucher disease. The current standard of care for Gaucher disease is enzyme replacement therapy, a medical treatment in which GCD is replaced for patients in whom the enzyme is lacking or dysfunctional. Although Gaucher disease is a relatively rare disease, it represents a large commercial market due to the severity of the symptoms and the chronic nature of the disease. The annual worldwide sales of Cerezyme, an enzyme replacement therapy produced by Genzyme Corporation and currently the only approved enzyme replacement therapy for Gaucher disease, were approximately \$1 billion in 2006, and \$546.8 million for the six months ended June 30, 2007, according to public reports by Genzyme. prGCD is a plant cell expressed version of the GCD enzyme, developed through our ProCellEx protein expression system. prGCD has an amino acid, glycan and three-dimensional structure that is very similar to its naturally-produced counterpart as well as to Cerezyme, the mammalian cell expressed version of the same protein. We believe prGCD may prove more cost-effective than the currently marketed alternative due to the cost benefits of expression through our ProCellEx protein expression system. In addition, based on our laboratory testing, preclinical and clinical results, we believe that prGCD may have the potential for increased potency and efficacy compared to the existing enzyme replacement therapy for Gaucher disease which may translate into lower dosages and/or less frequent treatments.

In addition to prGCD, we are developing an innovative product pipeline using our ProCellEx protein expression system, including therapeutic protein candidates for the treatment of Fabry disease, a rare, genetic lysosomal disorder in humans and female infertility disorders. We plan to file an investigational new drug application (IND) with the

FDA with respect to at least one additional product during 2008. Because these product candidates are based on well-understood proteins with known biological mechanisms of action, we believe we may be able to reduce the development risks and time to market for our product candidates. We hold the worldwide commercialization rights to our proprietary development candidates and we intend to establish an internal, commercial infrastructure and targeted sales force to market prGCD and our other products, if approved, in North America, the European Union and in other significant markets, including Israel.

Our ProCellEx protein expression system consists of a comprehensive set of technologies and capabilities for the development of recombinant proteins, including advanced genetic engineering technology and plant cell-based protein expression methods. Through our ProCellEx protein expression system, we can develop highly complex recombinant therapeutic proteins all the way to the scale-up of a purified product produced in compliance with current good manufacturing practices, or cGMP. We believe that our plant cell-based expression technology will enable us, in certain cases, to develop and commercialize recombinant proteins without infringing upon the method-based patents or other intellectual property rights of third parties. Moreover, we expect to enjoy method-based patent protection for the proteins we develop using our proprietary ProCellEx protein expression

S-38

Business

technology, although there can be no assurance that any such patents will be granted. In some cases, we may be able to obtain patent protection for the compositions of the proteins themselves. We have filed for United States and international composition of matter patents for prGCD.

Our ProCellEx protein expression system is built on flexible custom-designed bioreactors made of polyethylene and optimized for the development of complex proteins in plant cell cultures. These bioreactors entail low initial capital investment, are rapidly scalable at a low cost and require less hands-on maintenance between cycles, compared to the highly complex, expensive, stainless steel bioreactors typically used in mammalian cell-based production systems. As a result, through our ProCellEx protein expression system, we believe that we can develop recombinant therapeutic proteins yielding substantial cost advantages, accelerated development and other competitive benefits as compared to mammalian cell-based protein expression systems.

We have successfully demonstrated the feasibility of our ProCellEx system by expressing, on an exploratory, research scale, many complex therapeutic proteins belonging to different drug classes, such as enzymes, hormones, monoclonal antibodies, cytokines and vaccines. The therapeutic proteins we have expressed to date in research models have produced the intended composition and similar biological activity compared to their respective human-equivalent proteins. Moreover, several of such proteins demonstrated advantageous biological activity when compared to the biotherapeutics currently available in the market to treat the applicable disease or disorder. We believe that clinical success of prGCD would be a strong proof-of-concept for our ProCellEx protein expression system and plant cell-based protein expression technology. We also believe that the significant benefits of our ProCellEx protein expression system, if further substantiated in clinical trials and commercialization of our product candidates, have the potential to transform the industry standard for the development of complex therapeutic proteins.

Our goal is to become a leading fully integrated biopharmaceutical company focused on the development and commercialization of proprietary recombinant therapeutic proteins. To that end, we are leveraging our ProCellEx protein expression system to develop a pipeline of proprietary recombinant therapeutic proteins. In addition to the product candidates that we are developing internally, we have entered into agreements for additional compounds with academic institutions, including a licensing agreement with the technology transfer arm of Israel's Weizmann Institute of Science and an agreement with the technology transfer arm of the Hebrew University of Jerusalem. In addition, we

are collaborating with other pharmaceutical companies to develop therapeutic proteins that can benefit from the significant cost, intellectual property and other competitive advantages of our ProCellEx protein expression system. We entered into an agreement with Teva Pharmaceutical Industries Ltd. in September 2006 under which we have agreed to collaborate on the research and development of two proteins to be developed using our ProCellEx protein expression system. We also continuously review and consider additional development and commercialization alliances with other pharmaceutical companies and academic institutions.

Industry Overview

Recombinant proteins have revolutionized the treatment of a variety of diseases and disorders. Recombinant proteins are forms of human proteins that are produced, or expressed, using a mammalian, plant, bacterial or yeast cell as a production engine. In the early 1970s, a number of key scientific breakthroughs, including, among others, the demonstration of genetic engineering and genetic sequencing techniques, as well as the synthesis of genes, led to the advancement of recombinant protein technology.

As a result, the market for pharmaceutical therapeutics has undergone a transformation as recombinant proteins and other biologic products have become an increasingly significant portion of the global drug market and the focus of research worldwide. Based upon data from the Biotechnology Industry Organization, an organization that provides information, advocacy and business support to the biotechnology industry, since the introduction in 1982 of recombinant human insulin, the world's first genetically engineered pharmaceutical product, over 254 biotechnology drugs have been approved for over 392 indications. According to Datamonitor, a provider of business information to the pharmaceutical and other industries, the overall global biologics market size is expected to grow to \$105.2 billion in 2010, from \$56.1 billion in 2004, representing a compounded annual growth rate (CAGR) of 11.1%.

S-39

Business

Mammalian cell-based systems are the current industry standard for expression of recombinant therapeutic glycoproteins (complex proteins that contain sugar residues), including catalytic enzymes and monoclonal antibodies. Mammalian cell-based systems were first introduced in the late 1980s and are currently used to produce many of the biotechnology industry's largest and most successful therapeutic proteins, including Epogen[®], Neupogen[®], Cerezyme, Rituxan[®], Enbrel[®], Neulasta[®] and Herceptin[®]. Mammalian cell-based expression technology is based on the introduction of a human gene encoding for a specific therapeutic protein into the genome of a mammalian cell. The cells most often used in connection with mammalian cell-based protein expression are Chinese hamster ovary (CHO) cells.

Mammalian cell-based expression systems have become the dominant system for the expression of recombinant proteins due to their capacity for sophisticated, proper protein folding (which is necessary for proteins to carry out their intended biological activity), assembly and post-expression modification, such as glycosylation (the addition of sugar residues to a protein enabling specific biological activity). While bacterial and yeast cell-based expression systems were the first protein expression systems developed by the biotechnology industry and remain cost-effective compared to mammalian cell-based production methodologies, proteins expressed in bacterial and yeast cell-based systems lack the capacity for sophisticated protein folding, assembly and post-expression modifications, which are key factors of mammalian cell-based systems. Accordingly, such systems cannot be used to produce glycoproteins or other complex proteins and, therefore, bacterial and yeast cell-based systems are limited to the expression of the most basic, simple proteins, such as insulin and growth hormones. Due to their significant advantages, mammalian cell-based expression systems can produce proteins with superior quality and efficacy compared to proteins expressed in bacteria and yeast cell-based systems. As a result, the majority of currently approved therapeutic proteins, as well as

those under development, are produced in mammalian cell-based systems.

Despite the utility and widespread use of mammalian cell-based systems, they have a number of disadvantages. CHO cells and other mammalian cells are highly sensitive and can only be grown under near perfect conditions, requiring highly complex, expensive, stainless steel bioreactors which tightly regulate the required temperature, pH and oxygen levels. As a result, such bioreactor systems are very costly and complicated to operate. CHO cells and other mammalian cells are also susceptible to viral infections, including human viruses. The FDA and other regulatory authorities require viral inactivation and other rigorous and detailed procedures for mammalian cell-based manufacturing processes in order to address these potential hazards, thereby increasing the cost and time demands of such expression systems. Furthermore, the current FDA and other procedures only ensure screening for scientifically identified, known viruses. Accordingly, compliance with current FDA and other procedures does not fully guarantee that patients are protected against transmission of unknown or new potentially fatal viruses that may infect mammalian cells. In addition, mammalian cell-based expression systems require large quantities of sophisticated and expensive growth medium to accelerate the expression process.

Several companies and research institutions have explored alternatives to mammalian cell-based production technologies that overcome some of these disadvantages, focusing primarily on the expression of human proteins in genetically-modified organisms, or GMOs, such as transgenic field-grown, whole plants and transgenic animals. However, these alternate techniques may be restricted by regulatory and environmental risks and by the difficulty in applying cGMP standards of the pharmaceutical industry to these expression technologies.

ProCellEx: Our Proprietary Protein Expression System

ProCellEx is our proprietary production system that we have developed based on our plant cell culture technology for the development, expression and manufacture of recombinant proteins. Our expression system consists of a comprehensive set of capabilities and proprietary technologies, including advanced genetic engineering and plant cell culture technology, which enables us to produce complex, proprietary and biologically equivalent proteins for a variety of human diseases. Our protein expression system facilitates the creation and selection of high expressing, genetically stable cell lines capable of expressing recombinant proteins. The entire protein expression process, from initial nucleotide cloning to large-scale production of the protein product, occurs under cGMP-compliant, controlled processes. Our plant cell culture technology uses plant cells, such as carrot and tobacco cells, which undergo advanced genetic engineering and are grown on an industrial scale in a

S-40

Business

flexible bioreactor system. Cell growth, from scale up through large-scale production, takes place in flexible, sterile, polyethylene bioreactors which are confined to a clean-room environment. Our bioreactors are well-suited for plant cell growth using a simple, inexpensive, chemically-defined growth medium as a catalyst for growth. The reactors are custom-designed and optimized for plant cell cultures, easy to use, entail low initial capital investment, are rapidly scalable at a low cost and require less hands-on maintenance between cycles. Our protein expression system does not involve mammalian or animal components or transgenic field-grown, whole plants at any point in the production process.

Our ProCellEx system is capable of producing proteins with an amino acid structure practically equivalent to that of the desired human protein, and with a very similar, although not identical, glycan, or sugar, structure. Our internal research and external laboratory studies have demonstrated that ProCellEx is capable of producing recombinant proteins that exhibit a glycan and amino acid structure similar to their naturally-produced human counterparts. In

addition, proteins produced by our ProCellEx system maintain the biological activity that characterize that of the naturally-produced proteins. In collaboration with Israel's Weizmann Institute of Science, we have demonstrated that the three-dimensional structure of a protein expressed in our proprietary plant cell-based expression system retains the same three-dimensional structure as exhibited by the mammalian cell-based expressed version of the same protein. Based on these results, we believe that proteins developed using our ProCellEx protein expression system have the intended composition and correct biological activity of their human equivalent proteins.

Competitive Advantages of Our ProCellEx Protein Expression System

We believe that our ProCellEx protein expression system, including our advanced genetic engineering technology and plant cell-based protein expression methods, affords us a number of significant advantages over mammalian, bacterial, yeast and transgenic cell-based expression technologies, including the following:

Ability to Penetrate Certain Patent-Protected Markets. We seek to develop recombinant proteins that we believe we can produce and commercialize without infringing upon the method-based patents or other intellectual property rights of third parties. In several cases, the marketed biotherapeutic protein is not itself subject to patent protection and is available for use in the public domain; however, the process of expressing the protein product in mammalian or bacterial cell systems is protected by method-based patents. Using our plant cell-based protein expression technology, we are able to express the equivalent protein without infringing upon these method-based patents. Moreover, we expect to enjoy method-based patent protection for the proteins we develop using our proprietary ProCellEx protein expression technology, although there can be no assurance that any such patents will be granted. In some cases, we may be able to obtain patent protection for the compositions of the proteins themselves. We have filed for United States and international composition of matter patents for prGCD.

Significantly Lower Capital and Production Costs. Plant cells have a number of dynamic qualities that make them well-suited for the production of therapeutic proteins. Plant cells grow rapidly under a variety of conditions and are not as sensitive to temperature, pH and oxygen levels as mammalian cells. Our ProCellEx protein expression system, therefore, requires significantly less upfront capital expenditures as it does not use highly complex, expensive, stainless steel bioreactors typically used in mammalian cell-based production systems to maintain very specific temperature, pH and oxygen levels. Instead, we use simple polyethylene bioreactors that are able to be maintained at the room temperature of the clean-room in which they are placed. This system also reduces ongoing production and monitoring costs typically incurred by companies using mammalian cell-based expression technologies. Furthermore, while mammalian cell-based systems require very costly growth media at various stages of the production process to achieve target yields of their proteins, plant cells require only simple and much less expensive solutions based on sugar, water and microelements at infrequent intervals to achieve target yields. We believe that these factors will potentially result in lower capital and production costs for the commercial scale production of proteins by our ProCellEx system thereby providing us with a competitive advantage over competing protein expression technologies.

More Consistent and Potent End Product Relative to Mammalian Based Systems. Our ProCellEx protein expression system produces enzymes which have uniform glycosilation patterns and therefore do not require the lengthy and expensive post-expression modifications that are required for certain proteins produced by

S-41

Business

mammalian cell-based systems, including the proteins for the treatment of Gaucher disease. Such post-expression modifications in mammalian cell-produced proteins are made in order to expose the terminal mannose sugar residues,

which are structures on the protein that are key elements in allowing the produced protein to bind to a target cell and subsequently be taken into the target cell for therapeutic benefit. In the production of Cerezyme, exposing these terminal mannose sugar residues involves a multitude of highly technical steps which add time and cost to the production process. In addition, these steps do not guarantee the exposure of all of the required terminal mannose sugar residues, resulting in potentially lower effective yields and inconsistency in potency from batch to batch. Our ProCellEx protein expression system, by contrast, produces prGCD in a “ready to use” form that does not require additional glycosylation or other modifications to make it suitable for use in enzyme replacement therapy for Gaucher disease. We believe this quality increases the potency and consistency of the expressed proteins, thereby further increasing the cost advantages of our ProCellEx protein expression system over competing protein expression methodologies.

Elimination of the Risk of Viral Transmission or Infection by Mammalian Components. By nature, plant cells do not carry the risk of infection by human or other animal viruses. As a result, the risk of contamination of our products under development and the potential risk of viral transmission from our products under development to future patients, whether from known or unknown viruses, is eliminated. Because our product candidates do not bear the risk of viral transmission, we are not required by the FDA or other regulatory authorities to perform the constant monitoring procedures for mammalian viruses during the protein expression process that mammalian cell-based manufacturers are required to undertake. In addition, the production process of our ProCellEx protein expression system is void of any mammalian components which are susceptible to the transmission of prions, such as those related to bovine spongiform encephalopathy (commonly known as “mad-cow disease”). These factors further reduce the risks and operating costs of our ProCellEx system compared to mammalian cell-based expression systems.

Broad Range of Expression Capabilities. Unlike bacterial and yeast cell-based systems, which are unable to produce complex proteins, our ProCellEx protein expression system is able to produce a broad array of complex glycosylated proteins. We have successfully demonstrated the feasibility of our ProCellEx system by producing, on an exploratory, research scale, a variety of therapeutic proteins belonging to different classes of recombinant drugs, such as enzymes, hormones, monoclonal antibodies, cytokines and vaccines. We have demonstrated that the recombinant proteins we have expressed to date have the intended composition and correct biological activity of their human-equivalent protein, with several of such proteins demonstrating advantageous biological activity compared to the currently available biotherapeutics.

Our Strategy

Our goal is to become a leading fully integrated biopharmaceutical company focused on the development and commercialization of proprietary recombinant therapeutic proteins. To achieve our goal, we intend to:

Obtain Regulatory Approval for prGCD for the Treatment of Gaucher Disease. We commenced enrollment and treatment of patients in our phase III clinical trial of prGCD in the third quarter of 2007. We intend to conduct the phase III clinical trial in selected leading medical centers worldwide and, if the phase III clinical trial produces favorable results, we expect to file a New Drug Application, an NDA, for prGCD with the FDA by the end of 2008 or early 2009. We believe that prGCD may have cost, efficacy and potency advantages over the currently available enzyme replacement therapy for Gaucher disease and we intend to pursue post-marketing studies to confirm these advantages. Although Gaucher disease is a relatively rare disease, it represents a substantial commercial market due to the severity of the symptoms and the chronic nature of the disease. We believe that prGCD, with its potentially longer acting profile and more cost-effective development process, may be able to increase the number of patients who will be able to have access and afford such treatment, thereby expanding the market for Gaucher disease treatments.

Develop a Pipeline of Innovative Recombinant Therapeutic Proteins. We are leveraging our ProCellEx protein expression system to develop a pipeline of innovative recombinant proteins, with an emphasis on therapeutic treatments with large market opportunities. We select additional therapeutic candidates for development through in-house testing, licensing agreements with academic institutions and collaborations with pharmaceutical partners. We

have currently identified several product candidates oriented towards the specialty

S-42

Business

disease and therapeutic market segments, including treatments for Fabry disease and female infertility disorders. We believe that the clinical and regulatory pathway for many of our pipeline product programs candidates is already established, and that this may reduce the risks and costs associated with our clinical development programs. Furthermore, established markets already exist for each of our current product candidates. We plan to apply the manufacturing, clinical and regulatory experience gained from our lead product candidate to advance a number of our preclinical product candidates into clinical trials over the next few years.

Build a Targeted Sales and Marketing Infrastructure. We plan to establish our own, internal sales and marketing capabilities in North America, the European Union and in other significant markets, including Israel. We believe that the focus of our current clinical pipeline on relatively rare genetic disorders with small patient populations and a highly concentrated group of physicians focused on treating patients with such disorders will enable us to create a targeted internal sales force.

Establish Development and Commercialization Alliances with Corporate Partners. We believe that our technology and know-how has broad applicability to many classes of proteins and can be used to develop and potentially enhance numerous existing marketed protein therapeutics. We intend to leverage our technology and know-how by pursuing development and commercialization alliances with corporate partners for specific products and territories in order to enable us to optimize our resources and effectively penetrate a wider range of target diseases and therapeutic markets. We entered into an agreement with Teva in September 2006 for the development of two proteins. We are in various stages of discussions with a number of multinational pharmaceutical companies regarding additional collaboration agreements.

Acquire or In-License New Technologies, Products or Companies. We continuously seek attractive product candidates and innovative technologies to in-license or acquire. We intend to focus on product candidates that would be synergistic with our ProCellEx protein expression system and expertise and that represent large potential market opportunities. We believe that by pursuing selective acquisitions of companies or technologies in businesses that complement our own, we will be able to enhance our competitiveness and strengthen our market position.

Leverage Strength and Experience of Our Management Team and Board of Directors. Our management team has extensive experience in the biotechnology and pharmaceutical industry. Our Board of Directors includes pharmaceutical industry veterans, such as our Chairman, Mr. Eli Hurvitz, current Chairman of the Board and former President and Chief Executive Officer of Teva, Dr. Phillip Frost, current Vice-Chairman of Teva and former President and Chief Executive Officer of Ivax Corporation and Dr. Jane Hsiao, former Vice Chairman of Ivax Corporation. We will continue to leverage their experience and established track record in building leading companies as well as their relationships across the biotechnology and pharmaceutical industries.

Our Pipeline Drug Candidates

Our Lead Product Candidate, prGCD

prGCD, our lead proprietary product candidate, is a plant cell expressed recombinant Glucocerebrosidase enzyme (GCD) for the treatment of Gaucher disease. In April 2007, we received approval from the FDA to commence a phase III clinical trial of prGCD. We submitted to the FDA a request for a special protocol assessment (SPA) of the final

design of our pivotal phase III clinical trial for prGCD. In July 2007, we reached an agreement with the FDA on the design that we submitted in the SPA request and in the third quarter of 2007 we initiated enrollment and treatment of patients in the phase III clinical trial. In clinical trials in healthy subjects and in vivo primate studies, prGCD has demonstrated an increased half-life and prolonged presence of the enzyme in the blood serum of the subjects as compared to Cerezyme, the only enzyme replacement therapy currently marketed to treat Gaucher disease. We believe that prGCD, if approved, has the potential to offer patients and healthcare payors a more effective and cost efficient treatment of Gaucher disease because of the following features:

Increased Glycan Efficacy and Consistency. We believe that our ProCellEx protein expression system produces recombinant proteins that exhibit consistent enzymatic activity from batch to batch. This results in a highly active product that may achieve a desired therapeutic effect more effectively than the activity demonstrated in proteins produced through mammalian cell-based expression systems due to its greater glycan

S-43

Business

efficacy and consistency. This quality increases the effective consistency in potency and further increases the potential cost advantages from using our plant cell-based expression technology compared to competing protein expression methodologies.

Longer Half-Life. The data generated in preclinical and human clinical trials relating to the half-life of prGCD in the subjects' blood serum after infusion showed that the half-life of prGCD is significantly longer than that of Cerezyme when measured and compared to publicly available data on Cerezyme.

Cost-Effective. prGCD is potentially less expensive to produce as the manufacturing process does not require the large initial set-up investments involved in mammalian cell-based protein production, the extensive ongoing costs associated with growth media and monitoring throughout the production process nor any of the post-expression modification costs in order to modify the glycosilation of the proteins produced through the mammalian cell-based methodologies.

As such, we believe that prGCD's potential advantages may lead prGCD to become a highly efficacious and cost-effective treatment alternative for Gaucher disease patients.

Gaucher Disease Background

Gaucher disease, a hereditary, genetic disorder with severe and debilitating symptoms, is the most prevalent lysosomal storage disorder in humans. Lysosomes are small membrane-bound cellular structures within cells that contain enzymes necessary for intracellular digestion. Gaucher disease is caused by mutations or deficiencies in the gene encoding GCD, a lysosomal enzyme that catalyzes the degradation of the fatty substrate, glucosylceramide (GlcCer). The normal degradation products of GlcCer are glucose and ceramide, which are easily excreted by the cells through normal biological processes. Patients with Gaucher disease lack or otherwise have dysfunctional GCD and, accordingly, are not able to break down GlcCer. The absence of an active GCD enzyme leads to the accumulation of GlcCer in lysosomes of certain white blood cells called macrophages. Macrophages affected by the disease become highly enlarged due to the accumulation of GlcCer and are referred to as "Gaucher cells." Gaucher cells accumulate in the spleen, liver, lungs, bone marrow and brain. Signs and symptoms of Gaucher disease may include enlarged liver and spleen, abnormally low levels of red blood cells and platelets and skeletal complications.

Current Treatments for Gaucher Disease

The standard of care for Gaucher disease is enzyme replacement therapy using recombinant GCD to replace the mutated or deficient natural GCD enzyme. The latest studies estimate that there are approximately 10,000 patients suffering from Gaucher disease worldwide. Cerezyme, an enzyme replacement therapy commercialized by Genzyme Corporation, is the only recombinant GCD currently available on the market and approved worldwide for the treatment of Gaucher disease. According to public reports issued by Genzyme, Cerezyme was used to treat approximately 4,800 patients in 2006 and had annual sales of approximately \$1.0 billion in 2006, and \$546.8 million for the six months ended June 30, 2007. Cerezyme is produced through a mammalian cell-based protein expression process in CHO cells. There are no known severe side effects to the use of Cerezyme and its approved use over the past decade suggests that it is an effective treatment of Gaucher disease. However, Cerezyme is subject to the limitations of most mammalian cell-based therapeutic proteins, including lengthy and costly production processes. As enzyme replacement therapy does not cure the genetic disorder, but rather provides an external source for transfusion of the missing or mutated enzyme, Gaucher disease patients generally receive the treatment over their entire lifetime. The current average annual cost for enzyme replacement therapy for an adult Gaucher disease patient in the United States is in excess of \$200,000.

The only other approved drug for the treatment of Gaucher disease is Zavesca (miglustat), marketed by Actelion Ltd. Zavesca has been approved by the FDA for use in the United States as an oral treatment. However, it has many side effects and the FDA has approved it only for administration to those patients who cannot be treated through enzyme replacement therapy, and, accordingly, have no other treatment alternative. As a result, Zavesca's use has been extremely limited. Actelion has reported sales of Zavesca of approximately CHF 24.5 million (approximately \$20.0 million) for 2006 and CHF 16.8 million (approximately \$14.4 million) for the first half of 2007.

S-44

Business

prGCD Development Program

We believe the clinical development path for prGCD will be similar to that followed by the existing enzyme replacement therapy currently on the market. Efficacy endpoints for these studies, including reduction in size of spleen and platelet count, are generally well-established and accepted by regulatory agencies.

Laboratory Testing and Preclinical Studies of prGCD

We have conducted several in vitro tests and in vivo preclinical studies of prGCD. Our preclinical rodent and primate trials generated extensive toxicological and safety data that demonstrated no adverse effects, even with very high doses of prGCD being administered via intravenous infusions. In short term repeat dose studies in rodents and primates and nine month repeat dose studies in primates, no toxicity was observed at dosage levels of up to 10 times the current dose recommended for GCD in clinical use. Furthermore, no neutralizing antibodies were detected in any of the primates treated in the studies. The presence of neutralizing antibodies would have implied a likelihood of the host rejecting the therapeutic enzyme or reacting to it in a less efficient manner.

Our laboratory and preclinical data demonstrate that prGCD has the potential to be an efficacious enzyme replacement therapy for the treatment of Gaucher disease. Data produced from these preliminary development studies show that, relative to Cerezyme, prGCD has:

an equivalent to superior level of enzymatic activity (see Figure 1);

enhanced uptake based on observed GlcCer substrate degradation (see Figure 2); and

a prolonged half-life (see Figure 3).

As shown in Figure 1, we compared the enzymatic activity of prGCD and Cerezyme using an in vitro assay where increasing amounts of GlcCer substrate (S), provided in millimolar, were degraded by a fixed amount of prGCD and Cerezyme, measured in milligrams. Enzymatic activity was measured by the rate of degradation of GlcCer into glucose and ceramide (its normal degradation products), measured by millimoles of product produced per minute per fixed amount of enzyme. In the study assays performed, one demonstrated that prGCD had enzymatic activity that was equivalent to Cerezyme; the other studies demonstrated superior activity by prGCD. Figure 1 demonstrates that the enzymatic activity of prGCD was superior to Cerezyme.

Figure 1: prGCD and Cerezyme Enzymatic Activity

As shown in Figure 2, we compared the uptake of increasing amounts of Cerezyme and prGCD into the target cell, using an ex vivo mouse macrophage cell model. Cellular uptake was measured in cell lysates, solutions containing the contents of burst cells, by comparing enzymatic activity at various enzyme concentrations of Cerezyme and prGCD based on the amount of GlcCer substrate degradation into glucose and ceramide, measured in a microplate absorbance reader, a flat plate with multiple “wells” used as small test tubes, at an optical density of 405 nanometers. The results in Figure 2 demonstrate that the uptake into the macrophage cells of prGCD was greater than the uptake of Cerezyme at higher enzyme concentrations, as measured by the

S-45

Business

resulting enzymatic activity in the cells. We believe that the ability of the plant cells to directly generate the required terminal mannose structures for efficient glycosilation of prGCD, results in the enhanced uptake of prGCD into the Gaucher cells. In contrast, Cerezyme requires post-expression and purification modifications to expose the terminal mannose structures, which modification process can yield enzymes with less consistent glycosilation patterns and could reduce cellular uptake of Cerezyme.

Figure 2: prGCD and Cerezyme Cellular Uptake

Furthermore, the data generated in preclinical trials relating to pharmacokinetic parameters, specifically the half-life of enzyme in the subjects’ blood serum after infusion, showed that the half-life of prGCD is significantly longer than that of Cerezyme as disclosed publicly by Genzyme. We believe the extended half-life of prGCD relative to Cerezyme is attributable to the different glycoside profile, thereby resulting in the enhanced uptake of prGCD into the Gaucher cells.

Figure 3: prGCD and Cerezyme Half-Life Data

prGCD	Cerezyme
Primates ~13.0-20.0 minutes	~ 6.8-8.0 minutes ⁽¹⁾
Humans ~10.5-14.5 minutes	~3.6-10.4 minutes ⁽²⁾

(1)

Source: Cerezyme NDA — PharmTox review

(2)

Source: Cerezyme labeling approved by FDA for package insert

Prior to submitting an NDA, if at all, we intend to conduct further, standard preclinical studies of prGCD.

Phase I Clinical Trial

We completed a phase I clinical trial of prGCD in June 2006 which was performed under an FDA Investigational New Drug (IND). The phase I clinical trial was a single-center, non-randomized, open label, dose ranging study designed to evaluate the safety and pharmacokinetics of prGCD in healthy subjects. The trial was conducted on healthy subjects over a four-week period in which subjects received three single escalating doses of prGCD administered as intravenous infusions.

All doses administered to subjects in the phase I clinical trial, including the highest dose, which was the same dosage currently suggested with respect to the treatment by Cerezyme, demonstrated a strong safety profile. The data from our phase I clinical trial showed that prGCD was safe and well tolerated at all doses. See Figure 4.

S-46

Business

Figure 4: Adverse Events presented by: Dose Group, Severity and Relation to Study Treatment (Incidents; Subjects (% of Subjects))

Relation between Event to Drug	15 U/kg	30 U/kg	60 U/kg	Placebo	Events Severity	Total
Unrelated to drug ⁽¹⁾	0;0(0%)	0;0(0%)	2;1(17%)	0;0(0%)	Moderate	2
Remotely related to drug ⁽²⁾	4;2(33%)	1;1(17%)	2;1(17%)	1;1(17%)	Mild	8
Possibly related to drug ⁽³⁾	0;0(0%)	0;0(0%)	0;0(0%)	0;0(0%)		0
Probably related to drug ⁽⁴⁾	0;0(0%)	0;0(0%)	0;0(0%)	0;0(0%)		0
Related to drug ⁽⁵⁾	0;0(0%)	0;0(0%)	0;0(0%)	0;0(0%)		0

(1)

The event is clearly related to other factors, such as a subject’s clinical state, therapeutic interventions or concomitant medications.

(2)

The event was most likely produced by other factors, such as a subject’s clinical state, therapeutic interventions or concomitant medications, and does not follow a known response pattern to the study drug.

(3)

The event has a reasonable temporal relationship to the study drug administration and follows a known response pattern to the study drug. However, a potential alternate etiology may be responsible for the event. The effect of drug withdrawal is unclear. Rechallenge information is unclear or lacking.

(4)

The event follows a reasonable temporal sequence from the time of drug administration, and follows a known response pattern to the study drug and cannot be reasonably explained by other factors. There is a reasonable response to withdrawal of the drug. Rechallenge information is not available or advisable.

(5)

The event follows a temporal sequence from the time of drug administration and follows a known response pattern to the study drug. The event either occurs immediately following the study drug administration, improves on stopping the drug or reappears on repeated exposure.

There were no serious adverse events and no subjects withdrew from the trial or discontinued treatment due to an adverse event.

In addition, as illustrated in Figure 3 above, the half-life of prGCD was found to be significantly longer than that of Cerezyme as disclosed publicly by Genzyme, which was consistent with our preclinical data.

Further, no neutralizing antibodies or adverse immunological responses were detected in any of the subjects treated in the phase I clinical trial. The presence of neutralizing antibodies would imply that the human body may reject the therapeutic enzyme.

We believe the results of our biochemical, biological and preclinical studies and pharmacokinetic data from our phase I clinical trial may support claims for less frequent treatment and lower dosages of prGCD for Gaucher disease patients, as compared to the current standard of care. This would represent a substantial improvement over currently marketed enzyme replacement therapies. However, further clinical evaluation will still be required to support these claims. We will explore the potential for lower dosages in our phase III clinical trial.

Phase III Clinical Trial

After the conclusion of the phase I clinical trial and discussions with the FDA, we applied to commence a pivotal phase III clinical trial of prGCD, without the requirement to first complete a phase II clinical trial. In April 2007, we received authorization from the FDA to initiate a pivotal phase III clinical trial. We submitted to the FDA a request for a special protocol assessment (SPA) of the final design of our pivotal phase III clinical trial for prGCD. In July 2007, we reached an agreement with the FDA on the design that we submitted in the SPA request and in the third quarter of 2007 we initiated enrollment and treatment of patients in the phase III clinical trial. The phase III clinical trial is expected to include 30 patients in a randomized, double-blind, dose ranging study, with two parallel groups, one receiving a dosage equivalent to the prevalent standard of care for enzyme replacement therapy and one receiving a dosage equal to one half of that amount.

Other Drug Candidates in Our Pipeline

We are developing other recombinant therapeutic proteins to be expressed by our ProCellEx protein expression system, with an emphasis on treatments for which there are large, established pharmaceutical markets and where our proprietary protein expression system enables us to develop and commercialize recombinant proteins that are

patent-protected and therapeutically equivalent or superior to the existing treatments. We select

S-47

Business

additional therapeutic candidates for development by testing candidates in-house and through collaborations with academic partners. We have identified several product candidates oriented towards specialty disease and therapeutic market segments, including treatments for Fabry disease and female infertility. In addition, we are conducting initial research to evaluate potential programs in the fields of monoclonal antibodies, cytokines and vaccines. We plan to file an investigational new drug application (IND) with the FDA with respect to at least one additional product during 2008. In addition, we are developing a new method for delivering active recombinant proteins systemically through oral administration of transgenic plant cells expressing such biotherapeutic proteins.

PRX-102

We are developing a proprietary alpha Galactosidase enzyme, currently titled PRX-102, which is a therapeutic enzyme for the treatment of Fabry disease, a rare genetic lysosomal storage disorder in humans, the symptoms of which involve the accumulation of lipids in the cells of the kidneys, heart and other organs. Fabry disease affects more than 8,000 people globally. We believe that the treatment of Fabry disease is a specialty clinical niche with the potential for high growth. Currently there are two drugs available on the market to treat Fabry disease. Fabrazyme, made by Genzyme, was approved for the treatment of Fabry disease in the European Union in 2001 and the United States in 2003. Genzyme reported \$359 million in worldwide sales of Fabrazyme in 2006, and \$205 million for the six month period ended June 30, 2007. The other approved drug for the treatment of Fabry disease in the European Union is Replagal, which is sold by Shire plc. Shire reported \$118 million in sales of Replagal in 2006, and \$64.4 million during the first six months of 2007.

We are currently in the research phase of the development of PRX-102 and expect to initiate animal evaluation testing in the second half of 2007. As was the case in our development of prGCD, our development of PRX-102 involves the expression by our proprietary protein expression system of a naturally occurring enzyme to be used in enzyme replacement therapy for the treatment of Fabry disease. Based on our experience with prGCD and the experience of other companies developing enzyme replacement therapies for Fabry disease, we have reason to believe that, if favorable data is accumulated in preclinical and phase I clinical trials, the FDA may allow us to proceed directly with a pivotal phase III clinical trial without the need to complete a phase II clinical trial. However, there can be no assurance that we will initiate preclinical or phase I clinical trials and if we do, that such trials will result in favorable data. In addition, there can be no assurance that the FDA will allow us to proceed directly with a phase III clinical trial after completion of a phase I clinical trial.

PRX-111

We are developing two variants of Follicle Stimulating Hormone (FSH), a human fertility hormone targeted at the female infertility market, one of which is in collaboration with a third party. The three most active companies in the market for FSH biotherapeutic proteins are Merck Serono S.A. (which was acquired by Merck KGaA in 2007), Organon, a subsidiary of Akzo Nobel N.V., and Ferring Pharmaceuticals, a private company. Merck Serono reported aggregate worldwide sales equal to approximately \$523 million for 2006 of its FSH protein, Gonal-f® and Merck KGaA reports sales of EUR 226 (approximately \$322.3 million) for the first half of 2007, and based upon information disclosed by Akzo Nobel, Organon had worldwide sales of its FSH protein, Purgenon, of approximately \$591 million in 2006 and EUR 203 (approximately \$289.5 million) for the six months ended June 30, 2007. To date, we believe that our in vitro experiments with these hormones have demonstrated equivalent to superior biochemical and cellular

results when compared to the currently marketed biotherapeutic hormones used in approved female infertility treatments. We are currently performing additional in vivo animal research to evaluate the advantages of our FSH variants under development compared to the therapeutic proteins currently marketed to treat female infertility.

Acetylcholinesterase

In August 2007, we entered into an agreement with the Yissum Research and Development Company, the technology transfer arm of the Hebrew University of Jerusalem, Israel, and with the Boyce Thompson Institute, Inc., which is affiliated with Cornell University, pursuant to which we are developing a proprietary plant cell-based acetylcholinesterase (AChE) and its molecular variants for the use in several therapeutic and prophylactic indications, as well as in a biodefense program. Pursuant to the terms of the agreement, we have

S-48

Business

received an exclusive, worldwide right and license to certain technology, including patents and certain patent applications relating to AChE for the therapeutic and prophylactic indications as well as an exclusive license not limited to such indications with respect to certain of those patents and patent applications. In consideration for those licenses, we have agreed to make certain regulatory milestone payments, a sales-based milestone payment, a license maintenance fee and a royalty on net sales of any products developed with the licensed technology. We are currently performing research in order to evaluate the potential for the developed acetylcholinesterase and its variants, for various therapeutic fields. To date, our in vitro experiments have shown that the acetylcholinesterase expressed in our ProCellEx protein expression system demonstrates promising biological activity on biochemical and cellular levels.

Strategic Collaborations

Teva Pharmaceutical Industries

In September 2006, we entered into a Collaboration and Licensing Agreement with Teva for the development and manufacture of two proteins, to be identified by Teva and us using our ProCellEx protein expression system. These proteins are not part of our current product development pipeline. We have launched preliminary feasibility studies with respect to one protein under the agreement and we expect to launch feasibility studies with respect to the second protein before the end of 2007. Pursuant to the agreement, we have agreed to collaborate on the research and development of the two proteins utilizing our ProCellEx protein expression system. If the research and preclinical development efforts for either protein are successful and if Teva elects to pursue clinical trials for the development of either protein through our ProCellEx protein expression system, we have agreed to grant to Teva an exclusive license to commercialize the products developed based on the protein in return for royalty and milestone payments payable upon the achievement of certain pre-defined goals. We will retain certain exclusive manufacturing rights with respect to the active pharmaceutical ingredient of the proteins following the first commercial sale of a licensed product under the agreement and other rights.

Weizmann Institute of Science

In March 2006, we entered into a Research and License Agreement with the Yeda Research and Development Company Limited, the technology transfer arm of the Weizmann Institute of Science, pursuant to which Yeda is using its technology to design a next generation of GCD for the treatment of Gaucher disease that can be expressed using our ProCellEx protein expression system and that may have certain benefits over first generation treatments, including improved dosing. The technology licensed from Yeda provides a methodology for the rational design of an improved

drug for the treatment of Gaucher disease by enzyme replacement therapy, based on the three-dimensional crystal structure of GCD that was solved by scientists from the Weizmann Institute of Science. In consideration for Yeda's research, we agreed to pay a fixed research budget amount. Yeda's activities under the agreement are also funded by a grant by the Magnetron program of the Ministry of Industry and Trade of Israel, a program created to support the transfer of emerging technologies from academic research to industrial commercialization. Yeda has granted us a license to use their technology and discoveries for the development, production and sale of enzymatically active mutations of GCD and derivatives thereof for the treatment of Gaucher disease. We are responsible for commercializing the products developed under the license. Under the agreement, we are obligated to pay certain minimum royalty amounts and varying fixed royalty amounts on net sales of products developed using the licensed technology for the treatment of Gaucher disease and other indications as well as for sublicensing revenues. Accordingly, we will have certain payment obligations to Yeda even if we were to fail to generate any revenue from the licensed technology.

Intellectual Property

We maintain a proactive intellectual property strategy which includes patent filings in multiple jurisdictions, including the United States and other commercially significant markets. We hold eight granted patents and 44 patent applications currently pending with respect to various compositions, methods of production and methods of use relating to our ProCellEx protein expression system and our proprietary product pipeline. Of such patent applications, 12 have been filed since December 31, 2006, most of which were the result of existing patent applications reaching the national phase. We also have four joint patent applications and hold licensed rights to 2 patents and 21 patent applications.

S-49

Business

Our competitive position and future success depend in part on our ability, and that of our licensees, to obtain and leverage the intellectual property covering our product candidates, know-how, methods, processes and other technologies, to protect our trade secrets, to prevent others from using our intellectual property and to operate without infringing the intellectual property of third parties. We seek to protect our competitive position by filing United States, European Union, Israeli and other foreign patent applications covering our technology, including both new technology and improvements to existing technology. Our patent strategy includes obtaining patents, where possible, on methods of production, compositions of matter and methods of use. We also rely on know-how, continuing technological innovation, licensing and partnership opportunities to develop and maintain our competitive position. Lastly, we monitor third parties for activities that may infringe our intellectual property, as well as the progression of third party patent applications that may cover our product candidates or expression methods and thus, potentially, interfere with the development of our business. We are aware, for example, of United States patents, and corresponding international counterparts of such patents, owned by third parties that contain claims covering methods of producing GCD. We do not believe that, if any claim of infringement were to be asserted against us based upon such patents, prGCD would be found to infringe any valid claim under such patents. However, there can be no assurance that a court would find in our favor or that, if we choose or are required to seek a license to any one or more of such patents, a license would be available to us on acceptable terms or at all.

Our patent portfolio consists of several patent families (consisting of patents and/or patent applications) covering our technology, protein expression methodologies and system and product candidates. We have been issued, and hold licensed rights to, patents in the United States, the European Union, Israel, Canada, the Czech Republic, Hungary, Japan, Poland, Mexico, Hong Kong and India that cover our ProCellEx protein expression system, including the methods that we use for culturing and harvesting plant cells and/or tissues in consecutive cycles. Another patent

family in our patent portfolio contains patent applications relating to our method for producing glycosylated proteins in a plant culture, particularly proteins having a high mannose glycosylation, including prGCD. An additional patent family contains patent applications relating to a system and method for production of antibodies in a plant cell culture, and antibodies produced in such a system. In addition, our patent portfolio includes a PCT for a new method for delivering active recombinant proteins systemically through oral administration of transgenic plant cells. Lastly, our patent portfolio includes a patent family containing patent applications that we co-own and that covers human glycoprotein hormone and chain splice variants, including isolated nucleic acids encoding these variants. More specifically, this patent portfolio covers a new splice variant of human FSH.

In April 2004, we entered into a Collaborative Research Agreement with Icon Genetics AG (which was subsequently acquired by Bayer Corporation) regarding an option to license Icon's amplification technology for utilization in the expression of our products under development in order to improve our yield. In connection with such option, we entered into a license agreement with Icon in April 2005, pursuant to which we received an exclusive worldwide license to develop, test, use and commercialize Icon's technology to express certain proteins in our ProCellEx protein expression system. In addition, we are entitled to a non-exclusive worldwide license to make and have made other proteins expressed by using Icon's technology in our technology. In consideration for the licenses, we are obligated to pay to Icon development milestone payments and royalties. See "Risk Factors — If we fail to adequately protect or enforce our intellectual property rights or secure rights to third party patents, the value of our intellectual property rights would diminish and our business, competitive position and results of operations would suffer."

Manufacturing

Our drug product candidates, including prGCD, must be manufactured in a sterile environment and in compliance with cGMPs set by the FDA and other relevant foreign regulatory authorities. We use our current facility, which has approximately 5,000 sq/ft of clean rooms built according to industry standards, to develop, process and manufacture prGCD and other recombinant proteins. The entire protein production process takes place in a controlled environment. We have entered into a contract with Teva pursuant to which Teva has agreed to perform the final filling and freeze drying steps for prGCD in connection with our clinical trials. We anticipate entering into further internal and collaborative programs in the future that will require us to scale-up our manufacturing capacity from time to time. Consequently, we are planning to establish larger scale

S-50

Business

manufacturing facilities that will satisfy our production needs for the foreseeable future. Although this will result in a significant increase in our capital expenditures, we expect these expenditures to be substantially lower than those associated with the construction of mammalian cell-based systems. We have begun to prepare conceptual designs of a new manufacturing facility and are currently evaluating potential locations for such facility.

Our current facility in Israel has been granted "Approved Enterprise" status, and we have elected to participate in the alternative benefits program. Our facility is located in a Zone A location, and, therefore, our income from the Approved Enterprise will be tax exempt in Israel for a period of 10 years, commencing with the year in which we first generate taxable income from the relevant Approved Enterprise. To remain eligible for these tax benefits, we must continue to meet certain conditions, and if we increase our activities outside of Israel, for example, by future acquisitions, such increased activities generally may not be eligible for inclusion in Israeli tax benefit programs. In addition, our technology is subject to certain restrictions with respect to the transfer of technology and manufacturing rights.

Raw Materials and Suppliers

We believe that the raw materials that we require throughout the manufacturing process of our current and potential drug product candidates are widely available from numerous suppliers and are generally considered to be generic industrial biological supplies. We do not rely on a single or unique supplier for any materials relating to the current production of any biotherapeutic proteins in our pipeline.

Development and regulatory approval of our pharmaceutical products are dependent upon our ability to procure active ingredients and certain packaging materials from sources approved by the FDA and other regulatory authorities. Since the FDA and other regulatory approval processes require manufacturers to specify their proposed suppliers of active ingredients and certain packaging materials in their applications, FDA approval of a supplemental application to use a new supplier in connection with any drug candidate or approved product, if any, would be required if active ingredients or such packaging materials were no longer available from the specified supplier, which could result in manufacturing delays. From time to time, we intend to identify alternative FDA-approved suppliers to ensure the continued supply of necessary raw materials.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly evolving technology and significant competition. Competition from numerous existing companies and others entering the fields in which we operate is intense and expected to increase. Most of these companies have substantially greater research and development, manufacturing, marketing, financial, technological personnel and managerial resources than we do. In addition, many specialized biotechnology companies have formed collaborations with large, established companies to support research, development and commercialization of products that may be competitive with our current and future product candidates and technologies. Acquisitions of competing companies by large pharmaceutical or biotechnology companies could enhance such competitors' financial, marketing and other resources. Academic institutions, governmental agencies and other public and private research organizations are also conducting research activities and seeking patent protection and may commercialize competitive products or technologies on their own or through collaborations with pharmaceutical and biotechnology companies.

We specifically face competition from companies with approved treatments of Gaucher disease, including Genzyme and to a certain extent, Actelion Ltd. In addition, we are aware of other early stage, experimental, small molecule, oral drugs which are being developed for the treatment of Gaucher disease by Amicus Therapeutics, Inc. and Genzyme. Shire plc is currently developing a gene-activated GCD enzyme expressed in human cancer cells to treat Gaucher disease. We also face competition from companies with approved enzyme treatments of Fabry disease, including Genzyme and Shire, and we are aware of other early stage drugs which are being developed for the treatment of Fabry disease, including a drug being developed by Amicus Therapeutics.

We also face competition from companies that are developing other platforms for the expression of recombinant therapeutic pharmaceuticals. We are aware of companies that are developing alternative technologies to develop and produce therapeutic protein in anticipation of the expiration of certain patent claims covering marketed

S-51

Business

proteins. Competitors developing alternative expression technologies include Crucell N.V., Shire and GlycoFi, Inc. (which was acquired by Merck & Co. Inc.). Other companies are developing alternate plant-based technologies, include Biorex, Inc., Chlorogen, Inc., Greenovation Biotech GmbH and Dow Agrosience.

Several biogeneric companies are pursuing the opportunity to develop and commercialize follow-on versions of other currently marketed biologic products, including growth factors, hormones, enzymes, cytokines and monoclonal antibodies, which are areas that interest us. These companies include, among others, Novartis AG/Sandoz Pharmaceuticals, BioGeneriX AG, Barr Pharmaceuticals, Stada Arzneimittel AG, BioPartners GmbH and Teva.

Key differentiating elements affecting the success of our product candidates are likely to be their potency and efficacy profiles, as well as their cost-effectiveness as compared to other existing therapies.

Scientific Advisory Board

In the second quarter of 2007 we began to reorganize our scientific advisory board and appoint new members of such board. Members of our scientific advisory board in the fields of plant molecular and cell biology as well as Gaucher disease and various hematological and genetic disorders consult with our management within their professional areas of expertise; exchange strategic and business development ideas with our management; attend scientific, medical and business meetings with our management, such as meetings with the FDA and comparable foreign regulatory authorities, meetings with strategic or potential strategic partners and other meetings relevant to their areas of expertise; and attend meetings of our scientific advisory board. We expect our scientific advisory board to convene at least twice annually, and we consult with its individual members, frequently. Our scientific advisory board currently includes:

Name	Affiliation
	Chairman of the Department of Molecular and Experimental Medicine, The Scripps Research Institute
Professor Ernest Beutler, M.D.	American Academy of Arts and Sciences, Member The Institute of Medicine of the National Academies The National Academy of Sciences, Member American Society of Hematology, President (1978) Western Association of Physicians, President (1988)
Professor Aaron Ciechanover	Laureate of the Nobel Prize in Chemistry Distinguished research Professor at the Cancer and Vascular Biology Research Center of the Rappaport Research Institute and Faculty of Medicine at the Technion
Professor Gad Galili, Ph.D.	Chairman of the Department of Plant Sciences, The Weizmann Institute of Science, Rehovot, Israel,
Professor Ari Zimran, M.D.	Director of the Gaucher Clinic, Shaare Zedek Medical Center, Jerusalem, Israel, Associate Professor of Medicine, Hebrew University-Hadassah Medical School, Jerusalem, Israel,

Government Regulation

The testing, manufacture, distribution, advertising and marketing of drug products are subject to extensive regulation by federal, state and local governmental authorities in the United States, including the FDA, and by similar authorities in other countries. Any product that we develop must receive all relevant regulatory approvals or clearances, as the case may be, before it may be marketed in a particular country.

S-52

Business

The regulatory process, which includes overseeing preclinical studies and clinical trials of each pharmaceutical compound to establish its safety and efficacy and confirmation by the FDA that good laboratory, clinical and manufacturing practices were maintained during testing and manufacturing, can take many years, requires the expenditure of substantial resources and gives larger companies with greater financial resources a competitive advantage over us. Delays or terminations of clinical trials that we undertake would likely impair our development of product candidates. Delays or terminations could result from a number of factors, including failure to adhere to regulatory requirements, the emergence of safety or other issues that need to be resolved before further testing, stringent enrollment criteria, slow rate of enrollment, size of patient population, having to compete with other clinical trials for eligible patients, geographical considerations and others.

The FDA review process can be lengthy and unpredictable, and we may encounter delays or rejections of our applications when submitted. Generally, in order to gain FDA approval, we must first conduct preclinical studies in a laboratory and in animal models to obtain preliminary information on a compound and to identify any potential safety problems. The results of these studies are submitted as part of an IND application that the FDA must review before human clinical trials of an investigational drug can commence. Clinical trials may be terminated by the clinical trial site, sponsor or the FDA if toxicities appear that are either worse than expected or unexpected.

Clinical trials are normally performed in three sequential phases and generally take two to five years, or longer, to complete. Phase I consists of testing the drug product in a small number of humans, normally healthy volunteers, to determine preliminary safety and tolerable dose range. Phase II usually involves studies in a limited patient population to evaluate the effectiveness of the drug product in humans having the disease or medical condition for which the product is indicated, determine dosage tolerance and optimal dosage and identify possible common adverse effects and safety risks. Phase III consists of additional controlled testing at multiple clinical sites to establish clinical safety and effectiveness in an expanded patient population of geographically dispersed test sites to evaluate the overall benefit-risk relationship for administering the product and to provide an adequate basis for product labeling. Phase IV clinical trials may be conducted after approval to gain additional experience from the treatment of patients in the intended therapeutic indication.

After completion of clinical trials of a new drug product, FDA and foreign regulatory authority marketing approval must be obtained. Assuming that the clinical data support the product's safety and effectiveness for its intended use, a New Drug Application (NDA) is submitted to the FDA for its review which may require the submission of substantial user fees, although an NDA for an orphan indication is not subject to user fees. Generally, it takes one to three years to obtain approval. If questions arise during the FDA review process, approval may take a significantly longer period of time. The testing and approval processes require substantial time and effort and we may not receive approval on a timely basis, if at all, or the approval that we receive may be for a narrower indication than we had originally sought or impose label or marketing restrictions, potentially undermining the commercial viability of the product. Even if regulatory approvals are obtained, we are subject to ongoing record-keeping and reporting requirements and promotional requirements and limitations. Additionally, a marketed product must be manufactured in compliance with cGMPs, and the manufacturing and quality control procedures are subject to FDA's inspection for compliance with applicable cGMP requirements. The discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. For marketing outside the United States, we will be subject to foreign regulatory requirements governing human clinical trials and marketing approval for pharmaceutical products. The requirements governing the conduct of clinical trials, product licensing, pricing and medical reimbursement vary widely from country to country.

None of our products under development has been approved for marketing in the United States or elsewhere. We may not be able to obtain regulatory approval for any of our products under development in a timely manner, if at all. Failure to obtain requisite governmental approvals or failure to obtain approvals of the scope requested will delay or preclude us, or our licensees or marketing partners, from marketing our products, or limit the commercial use of our products, and thereby would have a material adverse effect on our business,

S-53

Business

financial condition and results of operations. See “Risk Factors — We may not obtain the necessary U.S. or worldwide regulatory approvals to commercialize our drug candidates in a timely manner, if at all, which would have a material adverse effect on our business and results of operations.”

The United States federal government regulates healthcare through various agencies, including but not limited to the following: (i) the FDA, which administers the Federal Food, Drug, and Cosmetic Act (FDCA), as well as other relevant laws and regulations; (ii) the Center for Medicare & Medicaid Services (CMS), which administers the Medicare and Medicaid programs; (iii) the Office of Inspector General (OIG) which enforces various laws aimed at curtailing fraudulent or abusive practices, including by way of example, the Anti-Kickback Law, the Anti-Physician Referral Law, commonly referred to as Stark, the Anti-Inducement Law, the Civil Money Penalty Law and the laws that authorize the OIG to exclude healthcare providers and others from participating in federal healthcare programs; and (iv) the Office of Civil Rights, which administers the privacy aspects of the Health Insurance Portability and Accountability Act of 1996 (HIPAA). All of the aforementioned are agencies within the Department of Health and Human Services (HHS). Healthcare is also provided or regulated, as the case may be, by the Department of Defense through its TriCare program, the Department of Veterans Affairs, especially through the Veterans Health Care Act of 1992, the Public Health Service within HHS under Public Health Service Act § 340B (42 U.S.C. § 256b), the Department of Justice through the Federal False Claims Act and various criminal statutes, and state governments under the Medicaid and other state sponsored or funded programs and their internal laws regulating all healthcare activities. Many states also have anti-kickback and anti-physician referral laws that are similar to the federal laws, but may be applicable in situations where federal laws do not apply.

Medicare is the federal healthcare program for those who are (i) over 65 years of age, (ii) disabled, (iii) suffering from end-stage renal disease or (iv) suffering from Lou Gehrig’s disease. Medicare consists of part A, which covers inpatient costs, part B, which covers services by physicians and laboratories, durable medical equipment and certain drugs, primarily those administered by physicians, and part D, which provides drug coverage for most prescription drugs other than those covered under part B. Medicare also offers a managed care option under part C. Medicare is administered by CMS. In contrast, Medicaid is a state-federal healthcare program for the poor and is administered by the states pursuant to an agreement with the Secretary of Health and Human Services. Most state Medicaid programs cover most outpatient prescription drugs.

International Regulation

We are subject to regulations and product registration requirements in many foreign countries in which we may sell our products, including in the areas of product standards, packaging requirements, labeling requirements, import and export restrictions and tariff regulations, duties and tax requirements. The time required to obtain clearance required by foreign countries may be longer or shorter than that required for FDA clearance, and requirements for licensing a product in a foreign country may differ significantly from FDA requirements.

Pharmaceutical products may not be imported into, or manufactured or marketed in, the State of Israel absent drug registration. The three basic criteria for the registration of pharmaceuticals in Israel is quality, safety and efficacy of the pharmaceutical product and the Israeli Ministry of Health requires pharmaceutical companies to conform to international developments and standards. Regulatory requirements are constantly changing in accordance with scientific advances as well as social and ethical values.

The relevant legislation of the European Union requires that medicinal products, including generic versions of previously approved products, and new strengths, dosage forms and formulations, of previously approved products, shall have a marketing authorization before they are placed on the market in the European Union. Authorizations are granted after the assessment of quality, safety and efficacy by the respective health authorities. In order to obtain an authorization, an application must be made to the competent authority of the member state concerned. Besides various formal requirements, the application must contain the results of pharmaceutical (physico-chemical, biological or microbiological) tests, of preclinical (toxicological and pharmacological) tests as well as of clinical trials. All of these tests must have been conducted in accordance with relevant European Union regulations and must allow the reviewer to evaluate the quality, safety and efficacy of the medicinal product.

S-54

Business

Israeli Government Programs

The following is a summary of the current principal Israeli tax laws applicable to us and Protalix Ltd., and of the Israeli Government programs from which Protalix Ltd. benefits. Some parts of this discussion are based on new tax legislation that has not been subject to judicial or administrative interpretation. Therefore, the views expressed in the discussion may not be accepted by the tax authorities in question. The discussion should not be construed as legal or professional tax advice and does not cover all possible tax considerations.

General Corporate Tax Structure in Israel

Generally, Israeli companies are subject to corporate tax at the rate of 31% on taxable income and are subject to real capital gains tax at a rate of 25% on capital gains (other than gains derived from the sale of listed securities that are taxed at the prevailing corporate tax rates) derived after January 1, 2003. The corporate tax rate was reduced in June 2004, from 36% to 35% for the 2004 tax year, 34% for the 2005 tax year, 31% for the 2006 tax year, 29% for the 2007 tax year, 27% for the 2008 tax year, 26% for the 2009 tax year and 25% for the 2010 tax year and thereafter. As discussed below, the corporate tax rate may be less for income derived from an Approved Enterprise.

Law for the Encouragement of Capital Investments, 1959

The Law for the Encouragement of Capital Investments, 1959, known as the Investment Law, provides certain incentives for capital investments in a production facility (or other eligible assets). Generally, an investment program that is implemented in accordance with the provisions of the Investment Law, referred to as an “Approved Enterprise,” is entitled to benefits. These benefits may include cash grants from the Israeli government and tax benefits, based upon, among other things, the location of the facility in which the investment is made and specific elections made by the grantee.

The Investment Law was significantly amended effective April 2005. Protalix Ltd. will continue to enjoy the tax benefits under the pre-revision provisions of the Investment Law. If any new benefits are granted to Protalix Ltd. in the future, Protalix Ltd. will be subject to the provisions of the amended Investment Law with respect to these new benefits. Therefore, the following discussion is a summary of the Investment Law prior to its amendment as well as the relevant changes contained in the new legislation.

Under the Investment Law prior to its amendment, a company that wished to receive benefits had to receive approval from the “Investment Center” of the Israeli Ministry of Industry, Trade and Labor, the Investment Center. Each certificate of approval for an Approved Enterprise relates to a specific investment program in the Approved

Enterprise, delineated both by the financial scope of the investment and by the physical characteristics of the facility or the asset, e.g., the equipment to be purchased and utilized pursuant to the program.

An Approved Enterprise may elect to forego any entitlement to the grants otherwise available under the Investment Law and, instead, participate in an alternative benefits program under which the undistributed income from the Approved Enterprise is fully exempt from corporate tax for a defined period of time. Under the alternative package of benefits, a company's undistributed income derived from an Approved Enterprise will be exempt from corporate tax for a period of between two and 10 years from the first year of taxable income, depending upon the geographic location within Israel of the Approved Enterprise. Upon expiration of the exemption period, the Approved Enterprise is eligible for the reduced tax rates otherwise applicable under the Investment Law for any remainder of the otherwise applicable benefits period (up to an aggregate benefits period of either seven or 10 years, depending on the location of the company or its definition as a foreign investors' company). If a company has more than one Approved Enterprise program or if only a portion of its capital investments are approved, its effective tax rate is the result of a weighted combination of the applicable rates. The tax benefits from any certificate of approval relate only to taxable profits attributable to the specific Approved Enterprise. Income from activity that is derived from different Approved Enterprises does not enjoy these tax benefits.

A company that has an Approved Enterprise program is eligible for further tax benefits if it qualifies as a foreign investors' company. A foreign investors' company eligible for benefits is essentially a company in which more than 25% of the share capital (in terms of shares, rights to profit, voting and appointment of directors) is owned (measured by both share capital and combined share and loan capital) by non-Israeli residents. A company that

S-55

Business

qualifies as a foreign investors' company and has an Approved Enterprise program is eligible for tax benefits for a 10-year benefit period and may enjoy a reduced corporate tax rate of 10% to 25%, depending on the amount of the company's shares held by non-Israeli shareholders.

If a company that has an Approved Enterprise program is a wholly owned subsidiary of another company, then the percentage of foreign investments is determined based on the percentage of foreign investment in the parent company. The tax rates and related levels of foreign investments are set forth in the following table:

Percent of Foreign Ownership	Rate of Reduced Tax
0-49%	25%
49-74%	20%
74-90%	15%
90-100%	10%

Our facility in Israel has been granted "Approved Enterprise" status, and it has elected to participate in the alternative benefits program. Under the terms of its Approved Enterprise program, the facility is located in a top priority location, or "Zone A", and, therefore, the income from that Approved Enterprise will be tax exempt in Israel for a period of 10 years, commencing with the year in which taxable income is first generated from the relevant Approved Enterprise. The current benefits program may not continue to be available and Protalix Ltd. may not continue to qualify for its benefits.

A company that has elected to participate in the alternative benefits program and that subsequently pays a dividend out of the income derived from the Approved Enterprise during the tax exemption period will be subject to corporate tax in respect of the amount distributed at the rate that would have been applicable had the company not elected the alternative benefits program (generally 10% to 25%, depending on the extent to which non-Israeli shareholders hold such company's shares). If the dividend is distributed within 12 years after the commencement of the benefits period (or, in the case of a foreign investor's company, without time limitation), the dividend recipient is taxed at the reduced withholding tax rate of 15% applicable to dividends from approved enterprises, or at the lower rate under an applicable tax treaty. After this period, the withholding tax rate is 25%, or at the lower rate under an applicable tax treaty. In the case of a company with a foreign investment level (as defined by the Investment Law) of 25% or more, the 12-year limitation on reduced withholding tax on dividends does not apply. The company must withhold this tax at its source, regardless of whether the dividend is converted into foreign currency.

The Investment Law also provides that an Approved Enterprise is entitled to accelerated depreciation on its property and equipment that are included in an approved investment program. This benefit is an incentive granted by the Israeli government regardless of whether the alternative benefits program is elected.

The benefits available to an Approved Enterprise are conditioned upon terms stipulated in the Investment Law and regulations and the criteria set forth in the applicable certificate of approval. If Protalix Ltd. does not fulfill these conditions in whole or in part, the benefits can be canceled and Protalix Ltd. may be required to refund the received benefits, linked to the Israeli consumer price index with the addition of interest or alternatively with an additional penalty payment. We believe that Protalix Ltd. currently operates in compliance with all applicable conditions and criteria, but there can be no assurance that Protalix Ltd. will continue to do so. Furthermore, there can be no assurance that any Approved Enterprise status granted to Protalix Ltd.'s facilities will entitle Protalix Ltd. to the same benefits to which it is currently entitled.

Pursuant to the March 2005 amendment to the Investment Law, the approval of the Investment Center is required only for Approved Enterprises that receive cash grants. Approved Enterprises that do not receive benefits in the form of governmental cash grants, but only tax benefits, are no longer required to obtain this approval. Instead, these Approved Enterprises are required to make certain investments as specified in the Investment Law.

The amended Investment Law specifies certain conditions for an Approved Enterprise to be entitled to benefits. These conditions include:

S-56

Business

the Approved Enterprise's revenues from any single country or a separate customs territory may not exceed 75% of the Approved Enterprise's total revenues; or

at least 25% of the Approved Enterprise's revenues during the benefits period must be derived from sales into a single country or a separate customs territory with a population of at least 12 million.

There can be no assurance that Protalix Ltd. will comply with the above conditions in the future or that Protalix Ltd. will be entitled to any additional benefits under the Investment Law. In addition, it is possible that Protalix Ltd. may

not be able to operate in a way that maximizes utilization of the benefits under the Investment Law.

From time to time, the Israeli Government has discussed reducing the benefits available to companies under the Investment Law. The termination or substantial reduction of any of the benefits available under the Investment Law could materially impact the cost of our future investments.

Encouragement of Industrial Research and Development Law, 1984

In the past, Protalix Ltd. received grants from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor, the OCS, for the financing of a portion of its research and development expenditures in Israel. As of December 31, 2006, the OCS approved grants in respect of Protalix Ltd.'s continuing operations totaling approximately \$4.9 million, measured from inception. Protalix Ltd. is required to repay up to 100% of grants actually received (plus interest at the LIBOR rate applied to the grants received on or after January 1, 1999) to the OCS through payments of royalties at a rate of 3% to 6% of the revenues generated from an OCS-funded project, depending on the period in which revenues were generated. As of December 31, 2006, Protalix Ltd. had not paid or accrued royalties and Protalix Ltd.'s contingent liability to the OCS with respect to grants received was approximately \$4.2 million.

Under the Israeli Law for the Encouragement of Industrial Research and Development, 1984 and related regulations, the Research Law, recipients of grants from the OCS are prohibited from manufacturing products developed using these grants outside of the State of Israel without special approvals, although the Research Law does enable companies to seek prior approval for conducting manufacturing activities outside of Israel without being subject to increased royalties. If Protalix Ltd. receives approval to manufacture the products developed with government grants outside of Israel, it will be required to pay an increased total amount of royalties (possibly up to 300% of the grant amounts plus interest), depending on the manufacturing volume that is performed outside of Israel, as well as at a possibly increased royalty rate.

Additionally, under the Research Law, Protalix Ltd. is prohibited from transferring the OCS financed technologies and related intellectual property rights outside of the State of Israel except under limited circumstances and only with the approval of the Research Committee of the OCS. Protalix Ltd. may not receive the required approvals for any proposed transfer and, if received, Protalix Ltd. may be required to pay the OCS a portion of the consideration that it receives upon any sale of such technology by a non-Israeli entity. The scope of the support received, the royalties that Protalix Ltd. has already paid to the OCS, the amount of time that has elapsed between the date on which the know-how was transferred and the date on which the OCS grants were received and the sale price and the form of transaction will be taken into account in order to calculate the amount of the payment to the OCS. Approval of the transfer of technology to residents of the State of Israel is required, and may be granted in specific circumstances only if the recipient abides by the provisions of applicable laws, including the restrictions on the transfer of know-how and the obligation to pay royalties. No assurances can be made that approval to any such transfer, if requested, will be granted.

In March 2005, an amendment to the Research Law was enacted. One of the main modifications included in the amendment was an authorization of the Research Committee to allow the transfer outside of Israel of know-how derived from an approved program and the related manufacturing rights. In general, the Research Committee may approve transfer of know-how in limited circumstances as follows:

in the event of a sale of the know-how itself to a non affiliated third party, provided that upon such sale the owner of the know-how pays to the OCS an amount, in cash, as set forth in the Research Law. In

Business

addition, the amendment provides that if the purchaser of the know-how gives the selling Israeli company the right to exploit the know-how by way of an exclusive, irrevocable and unlimited license, the research committee may approve such transfer in special cases without requiring a cash payment.

in the event of a sale of the company which is the owner of know-how, pursuant to which the company ceases to be an Israeli company, provided that upon such sale, the owner of the know-how makes a cash payment to the OCS as set forth in the Research Law.

in the event of an exchange of know-how such that in exchange for the transfer of know-how outside of Israel, the recipient of the know-how transfers other know-how to the company in Israel in a manner in which the OCS is convinced that the Israeli economy realizes a greater, overall benefit from the exchange of know-how.

Another provision in the amendment concerns the transfer of manufacturing rights. The research committee may, in special cases, approve the transfer of manufacture or of manufacturing rights of a product developed within the framework of the approved program or which results therefrom, outside of Israel.

The State of Israel does not own intellectual property rights in technology developed with OCS funding and there is no restriction on the export of products manufactured using technology developed with OCS funding. The technology is, however, subject to transfer of technology and manufacturing rights restrictions as described above. For a description of such restrictions, please see “Risk Factors — Risks Relating to Our Operations in Israel”. OCS approval is not required for the export of any products resulting from the research or development or for the licensing of any technology in the ordinary course of business.

Special Provisions Relating to Taxation under Inflationary Conditions

We are taxed in Israel under the Income Tax Law (Inflationary Adjustments), 1985, generally referred to as the Inflationary Adjustments Law. The Inflationary Adjustments Law is highly complex, and represents an attempt to overcome the problems presented to a traditional tax system by an economy undergoing rapid inflation. The provisions that are material to us are summarized below:

Where a company’s equity, as calculated under the Inflationary Adjustments Law, exceeds the depreciated cost of its fixed assets (as defined in the Inflationary Adjustments Law), a deduction from taxable income is permitted equal to this excess multiplied by the applicable annual rate of inflation. The maximum deduction permitted under this provision in any single tax year is 70% of taxable income. The unused portion linked to the Israeli consumer price index, may be carried forward.

Where a company's depreciated cost of fixed assets exceeds its equity, the excess multiplied by the applicable annual rate of inflation is added to taxable income.

Subject to specified limitations, depreciation deductions carryforwards on fixed assets and losses are adjusted for inflation based on the change in the consumer price index.

Under the Inflationary Adjustments Law, results for tax purposes are measured in real terms, in accordance with changes in the Israeli consumer price index. The difference between the change in the Israeli consumer price index and the exchange rate of Israeli currency in relation to the U.S. dollar may in future periods cause significant differences between taxable income and the income measured in dollars as reflected in our consolidated financial statements.

Law for the Encouragement of Industry (Taxes), 1969

We believe that Protalix Ltd. currently qualifies as an "Industrial Company" within the meaning of the Law for the Encouragement of Industry (Taxes), 1969, or the Industry Encouragement Law. The Industry Encouragement Law defines "Industrial Company" as a company resident in Israel that derives 90% or more of its income in any tax year (other than specified kinds of passive income such as capital gains, interest and dividends) from an "Industrial Enterprise" that it owns. An "Industrial Enterprise" is defined as an enterprise whose major activity in a given tax year is industrial production.

S-58

Business

The following corporate tax benefits, among others, are available to Industrial Companies:

amortization of the cost of purchased know-how and patents over an eight-year period for tax purposes;

accelerated depreciation rates on equipment and buildings;

under specified conditions, an election to file consolidated tax returns with other related Israeli Industrial Companies; and

expenses related to a public offering are deductible in equal amounts over three years.

Eligibility for the benefits under the Industry Encouragement Law is not subject to receipt of prior approval from any governmental authority. It is possible that Protalix Ltd. may fail to qualify or may not continue to qualify as an "Industrial Company" or that the benefits described above will not be available in the future.

Tax Benefits for Research and Development

Under specified conditions, Israeli tax laws allow a tax deduction by a company for research and development expenditures, including capital expenditures, for the year in which such expenditures are incurred. These expenditures must relate to scientific research and development projects and must be approved by the OCS. Furthermore, the research and development projects must be for the promotion of the company and carried out by or on behalf of the company seeking such tax deduction. However, the amount of such deductible expenditures is reduced by the sum of any funds received through government grants for the finance of such scientific research and development projects. Expenditures not so approved are deductible over a three-year period.

Tax Ruling and Lock-up Agreements Related to the Merger

In connection with the merger of Protalix Ltd. with our wholly-owned subsidiary, Protalix Acquisition Co. Ltd., which substantially all of the former shareholders of Protalix Ltd. entered into lock-up agreements to satisfy Israeli tax laws and contractual obligations. The lock-up agreements prohibit such former shareholders of Protalix Ltd. from, directly or indirectly, selling or otherwise transferring the shares of our common stock issued to them as a result of the merger during a period commencing upon the closing of the merger and ending on January 1, 2009. However, during such period, each such former Protalix Ltd. shareholder may, under the terms of the lock-up agreements and the tax ruling described below, sell an aggregate of 10% of each such shareholder's original number of locked-up shares. All permitted sales of locked-up shares that may be made during such time period are cumulative.

Furthermore, under applicable tax law incorporated by reference into the tax ruling obtained by Protalix Ltd. from the Israeli tax authorities, during the lock-up period, we must maintain our holding of at least 51% of Protalix Ltd. and certain of our shareholders at the time of the consummation of the merger must maintain, in the aggregate, holdings of at least 51% of our outstanding share capital. See "Risk Factors — Trading of our common stock is limited."

We and Protalix Ltd. are entitled to issue up to 25% of our respective share capital to third parties or a higher number of shares in a public offering, provided that we and Protalix Ltd. each remain compliant with the limitations described above.

Notwithstanding the limitations described above, the following transactions shall not be subject to any limitation on the sale of shares under the ruling: (i) dispositions by any shareholder of our company that holds less than 5% of our voting rights or issued and outstanding share capital upon the merger; or (ii) a shareholder who is not subject to, or is exempt from, the payment of taxes in Israel. These transactions are restricted pursuant to the contractual lock-ups described above.

According to the tax ruling, until the second anniversary of the closing of the merger, the operation of our company and/or that of Protalix Ltd. shall be further limited as follows:

Most of Protalix Ltd.'s operations and activities shall be directed to research and development activities. The Encouragement of Industrial Research and Development Law, 1984, of the State of Israel defines

research and development activity to include certain expenses incurred by a company in connection with the transition to the manufacturing and marketing of the products or technology that result from the research and development efforts.

The consideration received and to be received in connection with the issuance of our shares or rights, or those of Protalix Ltd., shall be used and reinvested in research and development activity as defined above. Such consideration includes any investment made in Protalix Ltd. prior to the merger. We are allowed to use the cash held by us as of the closing of the merger, for the operation of our company in the United States.

At least 75% of the research and development expenditures of Protalix Ltd. shall be made in Israel. However, the Israeli tax authorities may establish a lower percentage if Protalix Ltd. makes expenditures in connection with clinical and toxicology trials that cannot be conducted in Israel.

Employees

As of September 30, 2007, we had 89 employees, of whom 17 have a Ph.D. or M.D. in their respective scientific fields. We believe that our relations with these employees are good. We intend to continue to hire additional employees in research and development, manufacturing and administration in order to meet our operating plans. We believe that our success will greatly depend on our ability to identify, attract and retain capable employees. The Israeli Ministry of Labor and Welfare is authorized to make certain industry-wide collective bargaining agreements that apply to types of industries or employees including ours (“Expansion Orders”). These agreements affect matters such as cost of living adjustments to salaries, length of working hours and week, recuperation, travel expenses, and pension rights. Otherwise, our employees are not represented by a labor union or represented under a collective bargaining agreement. See “Risk Factors — We depend upon key employees and consultants in a competitive market for skilled personnel. If we are unable to attract and retain key personnel, it could adversely affect our ability to develop and market our products.”

Company Background

Our principal business address is 2 Snunit Street, Science Park, POB 455, Carmiel, Israel 20100, where our executive offices are located and we operate our research and manufacturing facility. Our telephone number is +972-4-988-9488. From May 2001 through December 31, 2006, our company had no operations. On December 31, 2006, we acquired, through a merger with our wholly-owned subsidiary, Protalix Acquisition Co. Ltd., all of the outstanding shares of Protalix Ltd., in exchange for shares of our common stock. As a result, Protalix Ltd. is now our wholly-owned subsidiary, with the former shareholders of Protalix Ltd. acquiring in excess of 99% of our outstanding shares of common stock. In connection with the merger, we effected a one-for-ten reverse stock split and on February 26, 2007, we changed our name to Protalix BioTherapeutics, Inc. Unless otherwise indicated, all share numbers in this annual report on Form 10-K give effect to such reverse stock split. On March 12, 2007, our shares of common stock were listed on the American Stock Exchange under the symbol PLX.

Our wholly-owned subsidiary and sole operating unit, Protalix Ltd., is an Israeli corporation and was originally incorporated in Israel as Metabogal Ltd. on December 27, 1993. During 1999, Protalix Ltd. changed its focus from plant secondary metabolites to the expression of recombinant therapeutic proteins in plant cells, and in April 2004 changed its name to Protalix Ltd.

ProCellEx[™] is our trademark. Each of the other trademarks, trade names or service marks appearing in this prospectus supplement belongs to its respective holder.

Available Information

Our corporate website is www.protalix.com. We make available on our website, free of charge, our Securities and Exchange Commission filings, including our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to these reports, as soon as reasonably practicable after we electronically file these documents with, or furnish them to, the Commission. Information on our website is not part of this document.

S-60

Business

Our website also includes printable versions of our Code of Business Conduct and Ethics and the charters for each of the Audit, Compensation and Nominating Committees of our Board of Directors. Each of these documents is also available in print to any shareholder who requests a copy by addressing a request to:

Protalix BioTherapeutics, Inc.
2 Snunit Street
Science Park
POB 455
Carmiel 20100, Israel
Attn: Mr. Yossi Maimon, Chief Financial Officer

S-61

Management

Our directors and executive officers, their ages and positions as of September 15, 2007, are as follows:

Name	Age	Position
Directors		
Eli Hurvitz	75	Chairman of the Board
Phillip Frost, M.D.	71	Director
David Aviezer, Ph.D., MBA	43	Director, President and Chief Executive Officer
Yoseph Shaaltiel, Ph.D.	54	Director and Executive VP, Research and Development
Amos Bar-Shalev ⁽²⁾⁽³⁾	54	Director
Zeev Bronfeld ⁽¹⁾	56	Director
Yodfat Harel Gross ⁽²⁾⁽³⁾	35	Director
Jane H. Hsiao, Ph.D., MBA ⁽³⁾	60	Director
Eyal Sheratzky ⁽¹⁾	39	Director
Sharon Toussia-Cohen ⁽¹⁾⁽²⁾	48	Director
Executive Officers		
Einat Brill Almon, Ph.D.	48	Vice President, Product Development
Yossi Maimon, CPA	37	Chief Financial Officer, Treasurer and Secretary
Iftah Katz	42	Vice President of Operations

(1)

Member of Nominating Committee

(2)

Member of Audit Committee

(3)

Member of Compensation Committee

Eli Hurvitz. Mr. Hurvitz serves as Chairman of our Board of Directors and has served as a director of Protalix Ltd. since 2005 and as our director since December 31, 2006. Mr. Hurvitz has served as Chairman of the Board of Teva since April 2002. Previously, he served as Teva's President and Chief Executive Officer for over 25 years and has been employed at Teva in various capacities for over 40 years. He serves as Chairman of the Board of The Israel Democracy Institute (IDI), Chairman of the Board of NeuroSurvival Technologies Ltd. (a private company) and a director of Vishay Intertechnology. He served as Chairman of the Israel Export Institute from 1974 through 1977 and as the President of the Israel Manufacturers Association from 1981 through 1986. He served as Chairman of the Board of Bank Leumi Ltd. from 1986 through 1987. He was a director of Koor Industries Ltd. from 1997 through 2004 and a member of the Belfer Center for Science and International Affairs at the John F. Kennedy School of Government at Harvard University from 2002 through 2005. He received his B.A. in Economics and Business Administration from the Hebrew University of Jerusalem in 1957.

Phillip Frost, M.D. Dr. Frost has served as a director of Protalix Ltd. since August 2006 and as our director since December 31, 2006. Dr. Frost was named the Vice Chairman of the Board of Teva in January 2006 when Teva acquired IVAX Corporation. Dr. Frost had served as Chairman of the Board of Directors and Chief Executive Officer of IVAX Corporation since 1987. Dr. Frost currently serves as the Chief Executive Officer and Chairman of Opko Health, Inc., a clinical-stage biopharmaceutical company focused on the development of innovative therapies for the treatment and prevention of ophthalmic disease that is quoted on the OTC Bulletin Board, and is a director of Modigene Inc., a development stage biopharmaceutical company also quoted on the OTC Bulletin Board utilizing patented technology to develop longer-acting, proprietary versions of already approved therapeutic proteins. Dr. Frost is the former Chairman and Chief Executive Officer of IVAX Corp. since 1987, until IVAX's sale to Teva Pharmaceuticals (TEVA-NASDAQ) in 2006. Dr. Frost is the Chief Executive Officer and Chairman of Opko Health, Inc. (EXEG.OB-OTC.BB). Dr. Frost was named Chairman of the Board of Ladenburg Thalman & Co., Inc., an American Stock Exchange-listed investment banking and securities brokerage firm, in July 2006 and has been a director of Ladenburg Thalman since March 2005. He was Chairman of the Department of Dermatology at Mt. Sinai Medical Center of Greater Miami, Miami Beach, Florida from 1972 to 1986. Dr. Frost was Chairman of the Board of Directors of Key Pharmaceuticals, Inc. from 1972 until the acquisition of Key Pharmaceuticals by Schering Plough Corporation in 1986. He serves on

S-62

Management

the Board of Regents of the Smithsonian Institution, a member of the Board of Trustees of the University of Miami, a Trustee of each of the Scripps Research Institutes, the Miami Jewish Home for the Aged, and the Mount Sinai

Medical Center and is Vice Chairman of the Board of Governors of the American Stock Exchange. Dr. Frost is also a director of Continucare Corporation, an American Stock Exchange-listed provider of outpatient healthcare and home healthcare services, Northrop Grumman Corp., a New York Stock Exchange-listed global defense and aerospace company, Castle Brands, Inc., an American Stock Exchange-listed developer and marketer of alcoholic beverages, and Cellular Technical Services, Inc., a provider of products and services for the telecommunications industry. Dr. Frost received a B.A. in French Literature from the University of Pennsylvania and an M.D. from the Albert Einstein College of Medicine.

David Aviezer, Ph.D., MBA. Dr. Aviezer has served as Chief Executive Officer of Protalix Ltd. since 2002 and its director since 2005 and as our director since December 31, 2006. On December 31, 2006, he became our President and Chief Executive Officer. Dr. Aviezer has over a decade of experience in biotechnology management, advancing products from early-stage research up to their regulatory approval and commercialization. Prior to joining Protalix Ltd., from 1996 to 2002, he served as General Manager of ProChon Biotech Ltd., an Israeli company focused on orthopedic disorders. Previously, Dr. Aviezer was a visiting scientist at the Medical Research Division of American Cyanamid, a subsidiary of Wyeth (NYSE:WEY), in New York. Dr. Aviezer is the recipient of the Clore Foundation Award and the J.F. Kennedy Scientific Award. He holds a Ph.D. in Molecular Biology and Biochemistry from the Weizmann Institute of Science and an M.B.A. from the Bar Ilan University Business School.

Yoseph Shaaltiel, Ph.D. Dr. Shaaltiel founded Protalix Ltd. in 1993 and has served as a member of our Board of Directors and as our Vice President, Research and Development since December 31, 2006. Prior to establishing Protalix Ltd., from 1988 to 1993, Dr. Shaaltiel was a Research Associate at the MIGAL Technological Center. He also served as Deputy Head of the Biology Department of the Biological and Chemical Center of the Israeli Defense Forces and as a Biochemist at Makor Chemicals Ltd. Dr. Shaaltiel was a Postdoctoral Fellow at the University of California at Berkeley and at Rutgers University in New Jersey. He has co-authored over 40 articles and abstracts on plant biochemistry and holds seven patents. Dr. Shaaltiel received his Ph.D. in Plant Biochemistry from the Weizmann Institute of Science, an M.Sc. in Biochemistry from the Hebrew University, and a B.Sc. in Biology from the Ben Gurion University.

Amos Bar-Shalev. Mr. Bar-Shalev has served as a director of Protalix Ltd. since 2005 and as our director since December 31, 2006. Mr. Bar Shalev brings to us extensive experience in managing technology companies. Currently, Mr. Bar-Shalev is the President of 1andOne Technology, and manages the Technorov portfolio. Until recently he was the Managing Director of TDA Israel, a management company of the TGF (Templeton Tadiran) Fund. Mr. Bar-Shalev was Vice President of Eurofund and a senior analyst at Teuza. He has served on the Board of Directors of many companies, such as Schema, ScitexVision, MessageVine, Objet, Idanit and ART. Mr. Bar-Shalev holds a B.Sc. in Electrical Engineering from the Technion, Israel and an M.B.A. from the Tel Aviv University. He holds the highest award from the Israeli Air Force for technological achievements.

Zeev Bronfeld. Mr. Bronfeld has served as a director of Protalix Ltd. since 1996 and as our director since December 31, 2006. Mr. Bronfeld brings to us vast experience in management and value building of biotechnology companies. Mr. Bronfeld is an experienced businessman who is involved in a number of biotechnology companies. He is a co-founder of Biocell Ltd., an Israeli publicly traded holding company specializing in biotechnology companies and has served as its Chief Executive Officer since 1986. Mr. Bronfeld currently serves as a director of Biocell Ltd., Nasvax Ltd., D. Medical Industries Ltd., and Biomedix Incubator Ltd., all of which are public companies traded on the Tel Aviv Stock Exchange. Mr. Bronfeld is also a director of each of the following privately-held companies: Meitav Technological Incubator Ltd., Innovetiva Ltd., Ecocycle Israel Ltd., Contipi Ltd., Nilimedix Ltd., G-Sense Ltd. and L.N. Innovative Technologies. Mr. Bronfeld holds a B.A. in Economics from the Hebrew University.

Yodfat Harel Gross. Ms. Harel Gross has served as our director since June 2007. Since 2006, Ms. Harel Gross has served as the Business Development Director and the head of the Israel office of Tamares Capital Ltd., a private investment group with interests in real estate, technology, manufacturing, leisure and media. Prior to joining Tamares Capital, from 2004 to 2006, she was the Corporate Director, Medical Imaging of

S-63

Management

Orbotech, Ltd., a company providing high-tech inspection and imaging solutions for bare printed circuit board (PCB), flat panel display (FPD) and PCB assembly manufacturing worldwide. Prior to that, from 1994 to 2003, she was a Managing Director of Harel-Hertz Investment House Ltd., a business investment company with offices in Tel Aviv and Tokyo. In 2002, Harel-Hertz House became the Israeli representative office for ITX Corporation, a publicly-traded company in Japan. Ms. Harel Gross currently serves on the board of directors of Tamares Capital, Tamares Hotels, Tamares Real Estate, Storewiz and Halman-Aldubi Provident Funds, Ltd. Ms. Harel Gross holds a B.A. in Communication and Political Science from Bar Ilan University and an executive M.B.A. from Bradford University, Great Britain. She has also completed programs in Directors' Studies and Advanced Advertising and Marketing at the Israel Management Center.

Jane H. Hsiao, Ph.D., MBA. Dr. Hsiao has served as a director of Protalix Ltd. since August 2006 and as our director since December 31, 2006. Dr. Hsiao served as the Vice Chairman-Technical Affairs of IVAX Corporation from 1995 to January 2006, when Teva acquired IVAX. Dr. Hsiao served as IVAX's Chief Technical Officer since 1996, and as Chairman, Chief Executive Officer and President of IVAX Animal Health, IVAX's veterinary products subsidiary, since 1998. From 1992 until 1995, Dr. Hsiao served as IVAX's Chief Regulatory Officer and Assistant to the Chairman. Dr. Hsiao served as Chairman and President of DVM Pharmaceuticals from 1998 through 2006 and is also a director of Cellular Technical Services Company, Inc., a provider of products and services for the telecommunications industry. Dr. Hsiao received a B.S. in Pharmacy from the National Taiwan University and a Ph.D. in Pharmaceutical Chemistry from the University of Illinois, Chicago.

Eyal Sheratzky. Mr. Sheratzky has served as a director of Protalix Ltd. since 2005 and as our director since December 31, 2006. Mr. Sheratzky has served as a director of Ituran Location & Control, a publicly-traded company quoted on the Nasdaq, since 1995 and as a Co-Chief Executive Officer since 2003. Prior to such date, he served as an alternate Chief Executive Officer of Ituran from 2002 through 2003 and as Vice President of Business Development from 1999 through 2002. Mr. Sheratzky is the Chairman of the Board of Directors of Biocell and serves as a director of Moked Ituran Ltd. and of Ituran's subsidiaries. From 1994 to 1999 he served as the Chief Executive Officer of Moked Services, Information and Investments Ltd. and as legal advisor to several of Ituran's affiliated companies. Mr. Sheratzky holds LL.B and LL.M degrees from Tel Aviv University School of Law and an Executive M.B.A. degree from Kellogg University.

Sharon Toussia-Cohen. Mr. Toussia-Cohen has served as a director of Protalix Ltd. since 2004 and as our director since December 31, 2006. Mr. Toussia-Cohen is the President, Chief Executive Officer and a director of Marathon Investments, an Israeli publicly-traded company since 2004. During the period from 1996 to 2002, he served as the Chief Executive Officer of the Aleppo Group and also as Managing Director of Israel's Airport City Project. From the years 2002 through 2004, Mr. Toussia-Cohen was a partner and Managing Director of the Tiv Taam Group and from the years 2004 through 2006 he was the Chief Executive Officer and a director of ISRI Investments Ltd. Mr. Toussia-Cohen currently serves on the Board of Directors of Bioview, an Israeli company traded on the Tel Aviv Stock Exchange, and several privately-held companies including Nanomotion, Margan Business Development Ltd., Pegasus, Chromat Ltd., and Yeulit. Mr. Toussia-Cohen is certified in Bank Management by the First International Bank of Israel and the Republic National Bank of New York. He was also the co-owner and director of a strategic consulting firm in Israel. Mr. Toussia-Cohen holds a Bachelor's degree in Economics and Political Science and an M.B.A. from the Hebrew University.

Einat Brill Almon, Ph.D. Dr. Almon joined Protalix Ltd. in December 2004 as its Vice President, Product Development and became our Vice President, Product Development on December 31, 2006. Dr. Almon has many

years of experience in the management of life science projects and companies, including biotechnology and agrobiotech, with direct experience in clinical, device and scientific software development, as well as a strong background and work experience in Intellectual Property. Prior to joining Protalix Ltd., from 2001 to 2004, she served as Director of R&D and IP of Biogenics Ltd., a company that developed an autologous platform for tissue based protein drug delivery. Biogenics, based in Israel, is a wholly-owned subsidiary of Medgenics Inc. Dr. Almon has trained as a biotechnology patent agent at leading IP firms in Israel. Dr. Almon holds a Ph.D. and an M.Sc. in molecular biology of cancer research from the Weizmann Institute of Science, a B.Sc. from the Hebrew University and has carried out Post-Doctoral research at the Hebrew University in the area of plant molecular biology.

S-64

Management

Yossi Maimon, CPA. Mr. Maimon joined Protalix Ltd. on October 15, 2006 as its Chief Financial Officer and became our Vice President and Chief Financial Officer on December 31, 2006. Prior to joining Protalix, from 2002 to 2006, he served as the Chief Financial Officer of Colbar LifeScience Ltd., a biomaterial company focusing on aesthetics, where he led all of the corporate finance activities, fund raisings, and legal aspects of Colbar including the sale of Colbar to Johnson and Johnson. Prior to that, from 2000 to 2002, he served as the Chief Financial Officer of Way2Call Communications, Ltd., an Israeli start up company in the telecommunications field, where he led the fund raising efforts, accounting issues and business development activities. Prior to that, from 1998 to 2000, he served as the controller of PEC, a United States company publicly traded on the New York Stock Exchange, where he was responsible for reporting and compliance with the Commission and led the process of delisting and merging PEC into Discount Investment Bank. Mr. Maimon has a B.A. in accounting from the City University of New York and an M.B.A. from Tel Aviv University, and he is a Certified Public Accountant in the United States (New York State) and Israel.

Iftah Katz. Mr. Katz joined our company on February 28, 2007 as our Vice President of Operations. Prior to joining our company, from July 1995 to through February 2007, Mr. Katz served as the Vice President, Pharmaceutical Technologies of Taro Pharmaceutical Industries Ltd., and, most recently, as its Vice President, Operational Excellence and Technology. Mr. Katz has over a decade of experience in the pharmaceutical industry specializing in the progression of products from developments stages to full scale commercial processes, including process development, manufacturing and overall validations and has experience across both bulk and finished dosage forms facilities. He brings significant experience to the design and start-up of cGMP manufacturing facilities and product launch processes. Mr. Katz holds an M.Sc. in Biotechnology and Food Engineering from the Technion-Israel Technology Institute and an M.B.A. from the Technion, Haifa as well as a B.A. in Biology, also from the Technion.

S-65

Our principal and selling securityholders

The following table sets forth information, as of September 15, 2007, regarding the beneficial ownership of our common stock:

each person who is known by us to own beneficially more than 5% or more of our common stock;

each director;

the named executive officers; and

all of our directors and executive officers collectively.

We are registering for resale the shares covered by this prospectus supplement to permit the selling securityholders identified below and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a securityholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus supplement to resell the shares when and as they deem appropriate. The securityholders acquired these shares from us in connection with the merger on December 31, 2006 between our wholly owned subsidiary, Protalix Acquisition Co. Ltd., and Protalix Ltd., in which we acquired all of the outstanding shares of Protalix Ltd. in exchange for shares of our common stock, or upon the exercise of warrants issued in connection with such merger.

Unless otherwise noted, we believe that all persons named in the table have sole voting and investment power with respect to all shares of our common stock beneficially owned by them. For purposes of these tables, a person is deemed to be the beneficial owner of securities that can be acquired by such person within 60 days from September 15, 2007 upon exercise of options, warrants and convertible securities. Each beneficial owner's percentage ownership is determined by assuming that options, warrants and convertible securities that are held by such person (but not those held by any other person) and that are exercisable within such 60 days from such date have been exercised.

The following table sets forth:

the name of the securityholders;

the number and percentage of shares of our common stock that the securityholders beneficially owned prior to the offering for resale of the shares under this prospectus supplement;

the number of shares of our common stock that may be offered for resale for the account of the securityholders under this prospectus supplement;

the number and percentage of shares of our common stock to be beneficially owned by the securityholders after the offering of the resale shares (assuming all of the offered resale shares are sold by the securityholders);

the number of shares of our common stock that may be offered for resale for the account of the securityholders under this prospectus supplement if the underwriters exercise the over-allotment option; and

the number and percentage of shares of our common stock to be beneficially owned by the securityholders after the offering of the resale shares in connection with the exercise of the over-allotment option (assuming the over-allotment option is exercised and all of the resale shares available for sale in connection with the over-allotment are sold by the securityholders).

The number of shares in the column “Number of Shares Being Offered” represents all of the shares of our common stock that each securityholder may offer under this prospectus supplement. We do not know how long the securityholders will hold the shares before selling them or how many shares they will sell, and we currently have no agreements, arrangements or understandings with any of the shareholders regarding the sale of any of the resale shares. The shares of our common stock offered by this prospectus supplement may be offered from time to time by the securityholders listed below. We will not receive any of the proceeds from the sale of common stock by the selling securityholders.

S-66

Our principal and selling securityholders

This table is prepared solely based on information supplied to us by the listed securityholders and other public documents filed with the Commission, and assumes the sale of all of the resale shares. The applicable percentages of beneficial ownership are based on an aggregate of 65,685,318 shares of our common stock issued and outstanding on September 15, 2007, adjusted as may be required by rules promulgated by the Commission.

The address for all directors and officers is c/o Protalix BioTherapeutics, Inc., 2 Snunit Street, Science Park, POB 455, Carmiel, Israel, 20100.

Board of Directors and Executive Officers	Number of Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Number of Shares Beneficially Owned After Offering		Number of Shares Offered in Over- Allotment	Number of Shares Beneficially Owned After Over-Allotment	
	Number	Percent		Number	Percent		Number	Percent
Eli Hurvitz ⁽¹⁾	5,920,344	8.8	% 109,320	5,811,024	8.4	% 65,592	5,745,431	8.3
Phillip Frost, M.D. ⁽²⁾	9,766,273	14.9	165,084	9,601,189	13.8	99,050	9,502,139	13.7
David Aviezer, Ph.D., MBA ⁽³⁾⁽²¹⁾	1,113,263	1.7	31,120	1,082,143	1.6	18,673	1,063,470	1.5
Yoseph Shaaltiel, Ph.D. ⁽⁴⁾	3,188,431	4.8	55,583	3,132,848	4.5	33,350	3,099,498	4.5
Amos Bar-Shalev ⁽⁵⁾	6,186,046	9.4	107,840	6,078,206	8.8	64,704	6,013,502	8.7
Zeev Bronfeld ⁽⁶⁾	14,466,319	22.0	252,189	14,214,130	20.5	151,313	14,062,817	20.2
Yodfat Harel Gross	—	—	—	—	—	—	—	—
Jane H. Hsiao, Ph.D., MBA ⁽⁷⁾	1,134,060	1.7	19,770	1,114,290	1.6	11,862	1,102,428	1.6
Eyal Sheratzky	—	—	—	—	—	—	—	—
Sharon Toussia-Cohen ⁽⁸⁾	6,556,381	10.0	114,296	6,442,085	9.3	68,578	6,373,507	9.2

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

Einat Brill Almon, Ph.D. ⁽⁹⁾⁽²¹⁾	215,727		* 8,432	207,295		* 5,060	202,235		*
Yossi Maimon ⁽¹⁰⁾⁽²¹⁾	154,993		* 10,808	144,185		* 6,485	137,700		*
Iftah Katz ⁽¹¹⁾	—	—	—	—	—	—	—	—	—
All executive officers and directors as a group (13 persons) ⁽¹²⁾	48,701,837	69.1	874,442	47,827,395	67.9	524,667	47,302,727	67.2	
Selling Securityholders:									
Bio-Cell Ltd. ⁽¹³⁾	14,466,319	22.0	252,189	14,214,130	20.5	151,313	14,062,817	20.2	
Meytav Technological Enterprises Initiation Center Ltd.	1,301,026	2.0	22,681	1,278,345	1.8	13,608	1,264,737	1.8	
Doron Peleg	662,363	1.0	11,547	650,816		* 6,928	643,888		*
Prof. Gad Galili	349,017		* 6,084	342,933		* 3,651	339,282		*
Techno-Rov Holdings (1993) Ltd. ⁽¹⁴⁾	6,186,046	9.4	107,840	6,078,206	8.8	64,704	6,013,502	8.7	
Marathon Investments Ltd. ⁽¹⁵⁾	6,556,381	10.0	114,296	6,442,085	9.3	68,578	6,373,507	9.2	
Dan Volpert & Nati Volpert and Ofer Drori JT TEN	210,607		* 3,671	206,936		* 2,203	204,733		*
Dan Volpert	14,232		* 248	13,984		* 149	13,835		*
Avraham Eylon	159,971		* 2,789	157,182		* 1,673	155,509		*
Amos Naim	233,818		* 4,076	229,742		* 2,446	227,296		*
Dror Shomrat	96,905		* 1,689	95,216		* 1,014	94,202		*
Michael Scheinbach	87,743		* 1,530	86,213		* 918	85,296		*
Silverstream International Asset Management Ltd.	175,485		* 3,059	172,426		* 1,836	170,590		*
Meni Mor	423,414		* 7,381	416,033		* 4,429	411,604		*
Tomer Klein	146,167		* 2,548	143,619		* 1,529	142,090		*
A. Sheratzky Holdings Ltd.	188,496		* 3,286	185,210		* 1,972	183,238		*
Nehemia Tanne	652,834	1.0	11,381	641,453		* 6,828	634,625		*
Remer Holdings Inc.	566,710		* 9,879	556,831		* 5,928	550,903		*
Nir Margalit	10,933		* 191	10,742		* 114	10,628		*
Avner Pinsker	10,994		* 192	10,802		* 115	10,687		*
Pontifax (Cayman) L.P. ⁽¹⁶⁾	2,826,964	4.2	52,200	2,774,763	4.0	31,320	2,743,443	4.0	
Pontifax (Israel) L.P. ⁽¹⁷⁾	3,093,380	4.6	57,120	3,036,260	4.4	34,272	3,001,988	4.3	
The Zabłudowicz Trust	2,981,245	4.5	51,971	2,929,274	4.2	31,183	2,898,091	4.2	
Docor International B.V.	1,571,005	2.4	27,387	1,543,618	2.2	16,432	1,527,186	2.2	

S-67

Our principal and selling securityholders

	Number of Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Number of Shares Beneficially Owned After Offering		Number of Shares Offered in Over-Allotment	Number of Shares Beneficially Owned After Over-Allotment	
	Number	Percent		Number	Percent		Number	Percent
Board of Directors and Executive Officers								
Atara Technology Ventures Ltd.	359,401		* 6,265	353,136		* 3,759	349,376	*
Ziff Asset Management, L.P.	2,650,002	4.0	46,197	2,603,805	3.8	27,718	2,576,087	3.7

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

Shimon Yaakovov	239,437		* 4,174	235,263		* 2,504	232,759		*
Hertzel Baibabiov, Nir Omid, Ronny Filo, Yaron Lizbona, Tomer Sun, Dorit Murten JT TEN	147,877		* 2,578	145,299		* 1,547	143,752		*
Frost Gamma Investment Trust ⁽³⁾	9,766,273	14.9	165,084	9,601,189	13.8	99,050	9,502,139	13.7	
Glenn L. Halpryn ⁽¹⁹⁾	820,557	1.3	13,642	806,915	1.2	8,185	798,730	1.2	
Ernest M. Halpryn ⁽²⁰⁾	488,998		* 8,525	480,473		* 5,115	475,359		*
IVC Investors Ltd.	1,956,181	3.0	34,102	1,922,079	2.8	20,461	1,901,618	2.7	
Steven Jerry Glauser, TTEE, Steven Jerry Glauser Trust dated 3/8/02	1,467,119	2.2	25,576	1,441,543	2.0	15,346	1,426,197	2.0	
Subbarao Uppaluri	56,702		* 988	55,714		* 593	55,120		*
Steven D. Rubin	56,702		* 988	55,714		* 593	55,120		*
Stephen H. Bittel	195,658		* 3,411	192,247		* 2,047	190,201		*
Ann D. Singer and Joseph A. Singer TTEE, Ann D. Singer Revocable Trust 2/18/98	46,441		* 810	45,631		* 486	45,146		*
Joseph S. Levy, TTEE, Dr. Joseph S. Levy Revocable Trust, dated 6/17/98	232,204		* 4,048	228,156		* 2,429	225,727		*
Carole R. Levy, TTEE, Carole R. Levy Revocable Trust dated 6/17/98	232,204		* 4,048	228,156		* 2,429	225,727		*
C.C.R. Trustees (1999) Ltd. ⁽²¹⁾	3,375,628	4.9	91,211	3,284,417	4.7	54,726	3,229,691	4.7	

*

less than 1%.

(1)

Consists of 2,826,964 shares of our common stock held by Pontifax (Cayman) L.P., 1,378,278 of which shares are owned of record and 1,448,686 of which shares are issuable upon exercise of options that are exercisable within 60 days of September 15, 2007, and 3,093,804 shares of our common stock held by Pontifax (Israel) L.P., 1,508,169 of which shares are owned of record and 1,585,211 of which shares are issuable upon exercise of options that are exercisable within 60 days of September 15, 2007. Does not include 167,414 shares of common stock held by Pontifax (Cayman) L.P. issuable upon exercise of options that are not exercisable within 60 days of September 15, 2007 and does not include 183,191 shares of common stock held by Pontifax (Israel) L.P. issuable upon exercise of options that are not exercisable within 60 days of September 15, 2007. Mr. Hurvitz is the chairman of Pontifax G.P. Ltd. The shares will be sold by the Pontifax entities.

(2)

The shares are owned by Frost Gamma Investments Trust of which Frost Gamma, L.P. is the sole and exclusive beneficiary. Dr. Phillip Frost is the sole limited partner of Frost Gamma, L.P. The general partner of Frost Gamma, L.P. is Frost Gamma, Inc. and the sole shareholder of Frost Gamma, Inc., is Frost-Nevada Corporation. Dr. Frost is also the sole shareholder of Frost-Nevada Corporation. Does not include 1,937,708 shares of common stock held by Dr. Frost issuable upon exercise of options that are not exercisable within 60 days of September 15, 2007. The shares will be sold by Frost Gamma Investments Trust.

(3)

Consists of 1,113,263 shares of common stock issuable upon exercise of outstanding options within 60 days of September 15, 2007. Does not include 671,892 shares of common stock issuable upon exercise of outstanding options that are not exercisable within 60 days of September 15, 2007. Dr. Aviezer intends to sell the shares through C.C.R. Trustees. See Note 21.

(4)

Consists of 244,324 shares of our common stock issuable upon exercise of outstanding options within 60 days of September 15, 2007.

(5)

Consists of 6,186,046 shares of our common stock held by Techno-Rov Holdings (1993) Ltd. Mr. Bar-Shalev is the manager of Techno-Rov Holdings and has the power to control its investment decisions. The shares will be sold by Techno-Rov Holdings. Mr. Bar-Shalev disclaims beneficial ownership of these shares.

(6)

Consists of 14,466,319 shares of our common stock held by Bio-Cell Ltd. Mr. Bronfeld is a director and Chief Executive Officer of Bio-Cell. The shares will be sold by Bio-Cell. Mr. Bronfeld disclaims beneficial ownership of these shares.

(7)

Does not include 387,542 shares of common stock issuable upon exercise of outstanding options that are not within 60 days of September 15, 2007.

(8)

Consists of 6,556,381 shares of our common stock held by Marathon Investments Ltd. Mr. Toussia-Cohen is a director and Chief Executive Officer of Marathon Investments Ltd. The shares will be sold by Marathon Investments. Mr. Toussia-Cohen disclaims beneficial ownership of these shares.

S-68

Our principal and selling securityholders

(9)

Consists of 215,727 shares of our common stock issuable upon exercise of outstanding options within 60 days of September 15, 2007. Does not include 267,974 shares of common stock issuable upon exercise of outstanding options that are not exercisable within 60 days of September 15, 2007. Dr. Brill Almon intends to sell the shares through C.C.R. Trustees. See Note 21.

(10)

Consists of 154,993 shares of our common stock issuable upon exercise of outstanding options within 60 days of September 15, 2007. Does not include 464,979 shares of common stock issuable upon exercise of outstanding options that are not exercisable within 60 days of September 15, 2007. Mr. Maimon intends to sell the shares through C.C.R.

Trustees. See Note 21.

(11)

Does not include 204,351 shares of common stock issuable upon exercise of outstanding options that are not exercisable within 60 days of September 15, 2007.

(12)

Consists of 4,762,204 shares of our common stock issuable upon exercise of warrants or options, as applicable, within 60 days of September 15, 2007. Does not include 4,080,700 shares of common stock issuable upon exercise of outstanding options that are not within 60 days of September 15, 2007.

(13)

Zeev Bronfeld, one of our directors, is a director and Chief Executive Officer of Bio-Cell Ltd. Bio-Cell's investment and voting decisions are made collectively by its Board of Directors. Mr. Bronfeld disclaims beneficial ownership of these shares. Bio-Cell's investment and voting decisions are made collectively by its Board of Directors.

(14)

Amos Bar-Shalev, one of our directors, is the manager of Techno-Rov Holdings and has the power to control its investment decisions. Mr. Bar-Shalev disclaims beneficial ownership of these shares.

(15)

Sharon Toussia-Cohen, one of our directors, is a director and Chief Executive Officer of Marathon Investments Ltd. Mr. Toussia-Cohen disclaims beneficial ownership of these shares.

(16)

Consists of 2,826,964 shares of our common stock, 1,378,278 of which shares are owned of record and 1,448,686 of which shares are issuable upon exercise of options that are exercisable within 60 days of September 15, 2007. Does not include 167,414 shares of common stock held by Pontifax (Cayman) L.P. issuable upon exercise of options that are not exercisable within 60 days of September 15, 2007. Eli Hurvitz, the Chairman of our Board of Directors, is the chairman of Pontifax G.P. Ltd. Pontifax (Cayman) L.P. is governed by Pontifax Management L.P. Pontifax G.P. Ltd. is the general partner of Pontifax Management L.P. Pontifax G.P. Ltd.'s investment and voting decisions are made collectively by its Board of Directors.

(17)

Consists of 3,093,380 shares of our common stock, 1,508,169 of which shares are owned of record and 1,585,211 of which shares are issuable upon exercise of options that are exercisable within 60 days of September 15, 2007. Does not include 183,191 shares of common stock held by Pontifax (Israel) L.P. issuable upon exercise of options that are not exercisable within 60 days of September 15, 2007. Eli Hurvitz is the chairman of Pontifax G.P. Ltd. Pontifax (Israel) L.P. is governed by Pontifax Management L.P. Pontifax G.P. Ltd. is the general partner of Pontifax Management L.P. Pontifax G.P. Ltd.'s investment and voting decisions are made collectively by its Board of Directors.

(18)

The address is 4400 Biscayne Blvd., Miami, Florida 33137. Frost Gamma, L.P. is the sole and exclusive beneficiary of Frost Gamma Investments Trust. Dr. Phillip Frost is the sole limited partner of Frost Gamma, L.P. The general partner of Frost Gamma, L.P. is Frost Gamma, Inc. and the sole shareholder of Frost Gamma, Inc. is Frost-Nevada Corporation. Dr. Frost is also the sole shareholder of Frost-Nevada Corporation. Does not include 1,937,708 shares of common stock issuable to Dr. Frost upon the exercise of outstanding options that are not exercisable within 60 days of September 15, 2007.

(19)

Does not include 1,956,181 shares of common stock held by IVC Investors Ltd. Glenn Halpryn is a beneficial owner of IVC Investors Ltd.

(20)

Does not include 1,956,181 shares of common stock held by IVC Investors Ltd. Ernest Halpryn is the managing member of IVC Investors Ltd.

(21)

C.C.R. Trustees is the trustee of our 2006 Stock Incentive Plan. To comply with certain Israeli statutes, the trustee has control over the options we grant to our employees, including our executive officers, and, to a certain extent, the shares of common stock issuable upon the exercise of such options. The shares listed include 20,137 outstanding shares of common stock and options to purchase 3,355,491 shares of common stock.

S-69

Capitalization

The following table presents our capitalization as of June 30, 2007:

on an actual basis; and

on a pro forma as adjusted basis to reflect the sale of 3,726,708 shares of common stock at an assumed public offering price of \$35 the receipt by us of net proceeds equal to \$121.0 million after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us.

This table should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes included elsewhere in this prospectus supplement, the accompanying prospectus or incorporated herein by reference.

As of June 30, 2007	
Actual	Pro forma as adjusted
(Unaudited)	

	(in thousands of US dollars, except share data)	
Debt:		
Short-term debt	\$2,699	\$2,699
Long-term debt	563	563
Total debt	3,262	3,262
Shareholders' equity:		
Common Stock, par value \$.001 per share; 150,000,000 authorized shares, 65,665,181 issued and outstanding shares, actual; 69,502,963 issued and outstanding shares, as adjusted	66	69
Additional paid-in capital	58,148	178,799
Retained earnings	(33,116)	(33,116)
Total shareholders' equity	25,098	145,752
Total capitalization	\$28,360	\$149,014

The discussion and table above does not include an aggregate of 11,785,304 shares of common stock reserved for issuance upon the exercise of outstanding options and warrants.

S-70

Dilution

If you invest in our common stock, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after the offering.

Our net tangible book value on June 30, 2007 was approximately \$25.1 million, equivalent to \$0.38 per share of common stock. We have calculated our net tangible book value per share by:

subtracting our liabilities from our total assets and deducting goodwill, intangible assets and debt issuance costs; and

dividing the difference by the number of shares of common stock outstanding.

After giving effect to adjustments relating to the offering, our pro forma net tangible book value on June 30, 2007, assuming a public offering price equal to \$35 per share, would have been approximately \$145.8 million, equivalent to \$2.09 per share of common stock. The adjustments made to determine our pro forma book value are as follows:

an increase in total assets to reflect the net proceeds of the offering received by us as described under "Use of Proceeds;" and

the addition of the 3,726,708 shares of common stock offered in this prospectus supplement to the number of shares of common stock outstanding.

The following table illustrates the immediate increase in our pro forma net tangible book value of \$1.71 per ordinary share and the immediate pro forma dilution to new investors:

Assumed public offering price per share of common stock	\$35.00
Net tangible book value per share of common stock as of June 30, 2007	\$0.38
Increase in net tangible book value per share of common stock attributable to the offering	1.71
Pro forma net tangible book value per share of common stock as of June 30, 2007 after giving effect to the offering	2.09
Dilution per share of common stock to new investors	\$32.91

The table below summarizes, as of June 30, 2007 on a pro forma basis, the differences for our existing shareholders and new shareholders in this offering, with respect to the number of shares of common stock purchased from us and the selling shareholders, the total consideration paid and the average per share of common stock price paid before deducting fees and offering expenses.

	Shares issued		Total consideration		Average price per share
	Number	%	Amount	%	
	(in thousands of US dollars, except per share data)				
Our existing shareholders ⁽¹⁾	65,665,181	94.6 %	\$50,228	27.8 %	\$0.80
New shareholders in this offering ⁽²⁾	3,726,708	5.4	130,435	72.2	35.00
Total	69,391,889	100.0 %	\$180,663	100.0 %	

The discussion and table above also do not include an aggregate of 11,785,304 shares of common stock we have reserved for issuance upon the exercise of outstanding options and warrants. If all of the options and warrants were exercised, pro forma net tangible book value per share of common stock would be \$2.39 and dilution to new investors would be \$32.61.

(1)

Does not include 20,137 shares of common stock issued after June 30, 2007 in connection with the exercise of employee stock options.

(2)

Does not include 1,242,236 shares of common stock to be sold by the selling securityholders in this offering, of which 91,211 shares of common stock are issuable upon the exercise of outstanding stock options in connection with the offering which were outstanding as of June 30, 2007.

Description of capital stock

We and any selling securityholder may use this prospectus supplement to offer common stock. The following briefly summarizes the general terms and provisions of the securities that we or our securityholders may offer. You should read the particular terms of the securities as described in this prospectus supplement, together with the provisions of our certificate of incorporation, bylaws and any relevant instrument and agreement relating to such securities. The specific terms of the securities offered may differ from the terms discussed below and you should always read the entire instruments and agreements defining the terms of the securities before you make an investment decision with respect to such securities.

Description of Common Stock

Our authorized capital stock consists of 150,000,000 shares of common stock, par value \$0.001 per share, and 100,000,000 shares of undesignated preferred stock, \$0.0001 par value per share. As of September 15, 2007, there were 65,685,318 shares of our common stock outstanding. We have no shares of preferred stock outstanding.

The following summary of provisions of our common stock is not complete and a full understanding requires a review of our restated articles of incorporation, as amended, and bylaws as well as the provisions of applicable law, including applicable provisions of Florida law.

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the securityholders and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose. Holders of our common stock are entitled to dividends when, as and if declared by the Board of Directors out of funds legally available therefor. In the event of our liquidation, dissolution or winding up, after payment of all of our debts and liabilities, the holders of our common stock are entitled to share ratably in all assets remaining available for distribution to them after payment of liabilities and after provision has been made for each class of stock, if any, having preference over the common stock. The holders of our common stock, as such, have no conversion, preemptive or other subscription rights, and there are no redemption provisions applicable to our common stock. All of our outstanding shares of common stock are fully paid and nonassessable.

Registration Rights

We have agreed to register for resale approximately 65,074,095 shares of our common stock. Such shares were issued in connection with the reverse merger with Protalix Ltd. in December 2006. All expenses in effecting these registrations, with the exception of underwriting discounts and selling commissions, will be borne by us. This prospectus supplement is part of a registration statement filed in partial response to such obligations.

Lock-up Restrictions

Substantially all of the holders of the 65,074,095 shares of our common stock that are subject to the registration rights described above have entered into lock-up agreements to satisfy Israeli tax laws and contractual obligations. The lock-up agreements prohibit such securityholders from, directly or indirectly, selling or otherwise transferring the shares of our common stock issued to them as a result of the merger during a period commencing upon the closing of the merger and ending on January 1, 2009. However, during such period, each such securityholder may, under the terms of the lock-up agreements and subject to an Israeli tax ruling governing the merger, sell an aggregate of 10% of each such securityholder's original number of locked-up shares. All permitted sales of locked-up shares that may be made during such time period are cumulative.

Certain United States federal tax considerations to non-United States holders

The following is a general description of the material United States federal income tax considerations with respect to the acquisition, ownership and disposition of our common stock. This description addresses only the United States federal income tax considerations of “non-United States holders” (as defined below) that are initial purchasers of our common stock pursuant to the offering and that will hold our common stock as capital assets (generally, property held for investment). For purposes of this description, a “non-United States holder” is a beneficial owner of our common stock that, for United States federal income tax purposes, is not:

an individual citizen or resident of the United States;

a corporation or other entity taxable as a corporation or a partnership or entity taxable as a partnership created or organized in or under the laws of the United States or of any state of the United States or the District of Columbia;

an estate whose income is subject to United States federal income tax regardless of its source; or

a trust (x) whose administration is subject to the primary supervision of a United States court and which has one or more United States persons who have the authority to control all substantial decisions of the trust or (y) if such trust validly elects to be treated as a United States person for United States federal income tax purposes.

If a partnership (or any other entity treated as a partnership for United States federal income tax purposes) holds our common stock, the tax treatment of a partner in such partnership generally will depend on the status of the partner and upon the activities of the partnership. Such a partner should consult its own tax advisor as to its tax consequences.

This description does not address all aspects of United States federal income taxation that may be relevant in light of a non-United States holder’s special tax status or special tax situations. This description does not address tax considerations applicable to holders that may be subject to special tax rules, including (i) certain United States expatriates or former residents of the United States; (ii) financial institutions or insurance companies; (iii) tax-exempt organizations; (iv) dealers or traders in securities or currencies; (v) persons that received our stock as compensation for the performance of services rendered; (vi) “controlled foreign corporations,” and “passive foreign investment companies,” for United States federal income tax purposes; or (vii) persons that will hold our common stock as part of a “hedging” or “conversion” transaction or as a position in a “straddle” for United States federal income tax purposes.

Moreover, except as set forth below, this description does not address the United States federal estate and gift or alternative minimum tax consequences of the acquisition, ownership and disposition of our common stock. Furthermore, this description does not address any tax consequences arising under the laws of any state, local or non-United States taxing jurisdiction.

This description is based on current provisions of the Internal Revenue Code, 1986, as amended (the “Code”), United States Treasury regulations promulgated under the Code, rulings, current administrative interpretations and official pronouncements of the United States Internal Revenue Service (the “IRS”), and judicial decisions, all as currently in effect. All of the foregoing is subject to change, which change could apply retroactively and could materially and adversely affect the tax consequences described below. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax consequences described below.

This discussion is not a comprehensive description of all of the U.S. federal tax consequences that may be relevant with respect to the ownership and disposition of our common stock. We urge you to consult your own tax advisor regarding your particular circumstances and the U.S. federal income and estate tax consequences to you of owning and disposing of our common stock, as well as any tax consequences arising under the laws of any state, local, or foreign or other tax jurisdiction and the possible effects of changes in U.S. federal or other tax laws.

S-73

Certain United States federal tax considerations to non-United States holders

Distributions

We have not paid any dividends on our common stock and we do not plan to pay any dividends for the foreseeable future. The gross amount of any distribution of cash or property that we may make to you with respect to our common stock generally will constitute dividends for United States tax purposes to the extent such distributions are paid out of our current or accumulated earnings and profits, as determined under United States federal income tax principles. To the extent that the amount of any distribution that we make to you exceeds our current and accumulated earnings and profits as determined under United States federal income tax principles, it will be treated as first as a tax-free return of your adjusted tax basis in our common stock and thereafter as capital gain.

Subject to the discussions below under “Status as United States Real Property Holding Corporation” and “Backup Withholding Tax and Information Reporting,” if you are a non-United States holder, distributions of cash or property paid to you generally will be subject to United States withholding tax either at a rate of 30% or such lower rate as may be specified by an applicable United States income tax treaty. In order to obtain the benefit of any applicable United States income tax treaty, you will have to file certain forms (e.g., IRS Form W-8BEN). Such forms generally would contain your name and address and a certification that you are eligible for the benefits of such treaty. If you are a non-United States holder of our common stock that is eligible for a reduced rate of withholding tax pursuant to a United States income tax treaty, you may obtain a refund of any excess amounts currently withheld if an appropriate claim for refund is filed with the IRS.

Except as may be otherwise provided in an applicable United States income tax treaty, if you are a non-United States holder and conduct a trade or business within the United States, you generally will be taxed at ordinary United States federal income tax rates (on a net income basis) on dividends that are effectively connected with the conduct of such trade or business and such dividends will not be subject to the withholding described above. If you are a foreign corporation, you may also be subject to a 30% “branch profits tax” unless you qualify for a lower rate under an applicable United States income tax treaty. To claim an exemption from withholding because the income is effectively connected with a United States trade or business, you must provide a properly executed IRS Form W-8ECI (or such successor form as the Internal Revenue Service designates) prior to the payment of dividends.

Sale or Exchange of Our Common Stock

If you are a non-United States holder, you generally will not be subject to United States federal income or withholding tax on any gain realized upon the sale or exchange of our common stock unless:

such gain effectively is connected with your conduct of a trade or business in the United States; or

if you are an individual, you are present in the United States for a period or periods aggregating 183 days or more in the taxable year of such sale or exchange and certain other conditions are met.

Status as United States Real Property Holding Corporation

If you are a non-United States holder, under certain circumstances gain recognized on the sale or exchange of, and certain distributions in excess of basis with respect to, our common stock would be subject to United States federal income tax notwithstanding your lack of other connections with the United States, if we are or have been a United States real property holding corporation (“USRPHC”) for United States federal income tax purposes at any time during the shorter of your holding period in the common stock and the five-year period ending on the date of such sale or exchange. Generally, a corporation is a USRPHC if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not currently and we do not believe that we will become a “United States real property holding corporation” for United States federal income tax purposes.

S-74

Certain United States federal tax considerations to non-United States holders

U.S. Federal Estate Tax

Shares of our common stock that are owned or treated as owned by an individual who is not a citizen or resident (as defined for United States federal estate tax purposes) of the United States at the time of death generally will be subject to United States federal estate tax.

Backup Withholding Tax and Information Reporting

United States backup withholding tax and information reporting requirements generally apply to certain payments to certain noncorporate holders of stock. Information reporting generally will apply to payments of dividends on, and to proceeds from the sale or redemption of, common stock made to a holder of common stock, other than an exempt recipient, including a corporation, a payee that is not a United States person for United States federal income tax purposes that provides an appropriate certification and certain other persons. A payor will be required to withhold backup withholding tax from any payments of dividends on, or the proceeds from the sale or redemption of, common stock to a holder, other than an exempt recipient, if such holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with, or establish an exemption from, such backup withholding tax requirements. The backup withholding tax rate is currently 28%.

Generally, we must report annually to the IRS the amount of dividends paid, the name and address of the recipient, and the amount, if any, of tax withheld. A similar report is sent to the holder. These reporting requirements apply regardless of whether withholding was reduced or eliminated by an applicable tax treaty. Pursuant to tax treaties or

other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

If you are a non-United States holder, under current Treasury regulations, backup withholding will not apply to distributions on our common stock to you, provided that we have received valid certifications meeting the requirements of the Code and neither we nor the payor has actual knowledge, or reason to know, that you are a United States person for purposes of such backup withholding tax requirements.

Backup withholding is not an additional tax. Rather, the United States income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund may be obtained, provided that the required information is furnished to the IRS.

The foregoing description is for general information only and is not intended to constitute a complete analysis of all tax consequences relating to acquisition, ownership and disposition of our common stock. Accordingly, each prospective non-United States holder of shares of our common stock should consult his, her or its own tax adviser with respect to the federal, state, local and foreign tax consequences of the acquisition, ownership and disposition of our common stock.

S-75

Underwriting

Underwriting

We and the selling shareholders are offering the shares of common stock described in this prospectus supplement through the underwriters named below. UBS Securities LLC is the representative of the underwriters and is the sole book-running manager of this offering. We and the selling securityholders have entered into an underwriting agreement with the representative. Subject to the terms and conditions of the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares of common stock listed next to its name in the following table:

Underwriters	Number of shares of common stock
UBS Securities LLC	
CIBC World Markets Corp.	
Total	4,968,944

The underwriting agreement provides that the underwriters must buy all of the shares if they buy any of them. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

Our shares of common stock and the shares of common stock of the selling securityholders are offered subject to a number of conditions, including:

receipt and acceptance of our common stock by the underwriters, and

the underwriters' right to reject orders in whole or in part.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

INDEMNIFICATION

We and the selling securityholders have agreed to indemnify the underwriters and their controlling persons against certain liabilities, including liabilities under the Securities Act. If we and the selling securityholders are unable to provide this indemnification, we and the selling securityholders will contribute to payments the underwriters and their controlling persons may be required to make in respect of those liabilities.

Over-allotment Option

The selling securityholders have granted the underwriters an option to buy up to 745,342 additional shares of common stock. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with this offering. The underwriters have 30 days from the date of this prospectus supplement to exercise this option. If the underwriters exercise this option, they will each purchase additional shares of common stock approximately in proportion to the amounts specified in the table above.

Commissions and Discounts

Shares sold by the underwriters to the public will initially be offered at the offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ per share from the public offering price. Any of these securities dealers may resell any shares purchased from the underwriters to other brokers or dealers at a discount of up to \$ per share from the public offering price. If all the shares are not sold at the public offering price, the representative may change the offering price and the other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriters. Upon execution of the underwriting agreement, the underwriters will be obligated to purchase the shares at the prices and upon the terms stated therein, and, as a result, will thereafter bear any risk associated with changing the offering price to the public or other selling terms.

S-76

Underwriting

The following table shows the per share and total underwriting discounts and commissions we and the selling shareholders will pay to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase up to 745,342 additional shares from the selling securityholders.

	Paid by us		Paid by selling securityholders		Total	
	No exercise	Full exercise	No exercise	Full exercise	No exercise	Full exercise
Per share	\$	\$	\$	\$	\$	\$
Total	\$	\$	\$	\$	\$	\$

We will pay all of the expenses of this offering, except for the underwriting discounts and commissions. We and the selling securityholders will pay the underwriting discounts and commissions on a pro rata basis, based on the number of shares of common stock being sold by us and them in this offering. We estimate that the total expenses of the offering payable by us, excluding the underwriting discounts and commissions, will be approximately \$0.7 million. Expenses include the SEC and NASD filing fees, printing, legal, accounting and transfer agent and registrar fees and other miscellaneous fees and expenses.

No Sales of Similar Securities

We, our executive officers and directors listed in “Management”, the selling securityholders and the beneficial owners of 5% or more of our shares of common stock, and, if such shareholder is a corporation, its shareholders and the natural persons having voting and investment control over it, who following the consummation of this offering will beneficially own an aggregate of 68,392,227 shares of common stock, have entered into lock-up agreements with the underwriters. Under these agreements, we and each of these persons may not, without the prior written approval of UBS Securities LLC, offer, sell, contract to sell or otherwise dispose of or hedge our shares of common stock or securities convertible into or exchangeable for our shares of common stock. These restrictions will be in effect for a period of 180 days after the date of this prospectus supplement. At any time and without public notice, UBS Securities LLC may in their sole discretion, release all or some of the securities from these lock-up agreements. The 180-day lock-up period may be extended if (1) we issue an earnings release, or material news or a material event relating to us occurs, during the period that begins on the date that is 15 calendar days plus three business days before the end of the lock-up period, or (2) prior to the expiration of the lock-up period, we announce that we will release earnings results during the 16 calendar-day period beginning on the last day of the lock-up period. In either case, the lock-up period may be extended for 15 calendar days plus three business days after the date on which the issuance of the earnings release or the material news or material event occurs.

American Stock Exchange Listing

Our common stock is listed on the American Stock Exchange under the symbol “PLX.”

Price Stabilization, Short Positions

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock including:

stabilizing transactions;

short sales;

purchases to cover positions created by short sales;

imposition of penalty bids;

syndicate covering transactions; and

passive market making.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or slowing a decline in the market price of our common stock while this offering is in progress. These transactions may also include making short sales of our common stock, which involves the sale by the underwriters of a greater number of

S-77

Underwriting

shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be “covered” shorts, which are short positions in an amount not greater than the underwriters’ over-allotment option referred to above, or may be “naked” shorts, which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are sales in excess of the over-allotment option. The underwriters must close out any naked short position, by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchased shares in this offering.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representative has repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. The underwriters may carry out these transactions on The American Stock Exchange, in the over-the-counter market or otherwise.

The underwriters and their affiliates have provided, and may provide, certain commercial banking, financial advisory and investment banking services for us for which they receive customary fees. The underwriters and their affiliates may from time to time in the future engage in transactions with us and perform services for us in the ordinary course of their business.

Electronic Distribution

A prospectus supplement and the accompanying prospectus in electronic format is being made available on Internet websites maintained by one or more of the lead underwriters of this offering and may be made available on websites maintained by other underwriters. Other than the prospectus supplement and the accompanying prospectus in electronic format, the information on any underwriter’s website and any information contained in any other website

maintained by an underwriter is not part of the supplement and the accompanying prospectus, or the registration statement of which the prospectus supplement and the accompanying prospectus form a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter and should not be relied upon by investors.

NOTICE TO INVESTORS

EUROPEAN ECONOMIC AREA

In relation to each Member State of the European Economic Area, or EEA, which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, our common stock will not be offered to the public in that Relevant Member State prior to the publication of a prospectus in relation to our common stock that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that, with effect from and including the Relevant Implementation Date, our common stock may be offered to the public in that Relevant Member State at any time:

to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

S-78

Underwriting

to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts; or

in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

As used above, the expression “offered to the public” in relation to any of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common stock to be offered so as to enable an investor to decide to purchase or subscribe for our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression “Prospectus Directive” means Directive 2003/71/ EC and includes any relevant implementing measure in each Relevant Member State.

The EEA selling restriction is in addition to any other selling restrictions set out below.

UNITED KINGDOM

Our common stock may not be offered or sold and will not be offered or sold to any persons in the United Kingdom other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses and in compliance with all applicable provisions of the Financial Services and Markets Act 2000, or the FSMA, with respect to anything done in relation to our common stock in, from or otherwise involving the United Kingdom. In addition, each underwriter has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us. Without limitation to the other restrictions referred to herein, this prospectus supplement and the accompanying prospectus are directed only at (1) persons outside the United Kingdom, (2) persons having professional experience in matters relating to investments who fall within the definition of “investment professionals” in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or (3) high net worth bodies corporate, unincorporated associations and partnerships and trustees of high value trusts as described in Article 49(2) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005. Without limitation to the other restrictions referred to herein, any investment or investment activity to which this supplement and the accompanying prospectus relate is available only to, and will be engaged in only with, such persons, and persons within the United Kingdom who receive this communication (other than persons who fall within (2) or (3) above) should not rely or act upon this communication.

ISRAEL

Neither the offering contemplated by this prospectus supplement and the accompanying prospectus nor the securities offered hereunder have been or will be registered with the Securities Commission of the State of Israel. Accordingly, the securities offered by this prospectus supplement may not be offered or sold to the general public. The securities offered by this prospectus supplement may only be offered to, and may only be acquired by, those parties that are “accredited investors” as defined in Section 15 of the Securities Law, 5728-1968, of the State of Israel and the rules and regulations adopted thereunder.

FRANCE

No prospectus (including any amendment, supplement or replacement thereto) has been prepared in connection with the offering of our common stock that has been approved by the Autorité des marchés financiers or by the competent authority of another State that is a contracting party to the Agreement on the European Economic Area and notified to the Autorité des marchés financiers; no common stock has been offered or sold and will be offered or sold, directly or indirectly, to the public in France except to permitted investors, consisting of persons licensed to provide the investment service of portfolio management for the account of third parties, qualified investors (investisseurs qualifiés) acting for their own account and/or corporate investors meeting one of the four criteria provided in Article 1 of Decree N7 2004-1019 of September 28, 2004 and belonging to a limited circle

S-79

Underwriting

of investors (cercle restreint d’investisseurs) acting for their own account, with “qualified investors” and “limited circle of investors” having the meaning ascribed to them in Article L. 411-2 of the French Code Monétaire et Financier and applicable regulations thereunder; none of this supplement and the accompanying prospectus or any other materials related to the offer or information contained therein relating to our common stock has been released, issued or distributed to the public in France except to Permitted Investors; and the direct or indirect resale to the public in France of any common stock acquired by any Permitted Investors may be made only as provided by articles L. 412-1

and L. 621-8 of the French Code Monétaire et Financier and applicable regulations thereunder.

ITALY

The offering of shares of our common stock has not been cleared by the Italian Securities Exchange Commission (Commissione Nazionale per le Società e la Borsa, or the CONSOB) pursuant to Italian securities legislation and, accordingly, shares of our common stock may not and will not be offered, sold or delivered, nor may or will copies of this prospectus supplement and the accompanying prospectus or any other documents relating to shares of our common stock or the offering be distributed in Italy other than to professional investors (operatori qualificati), as defined in Article 31, paragraph 2 of CONSOB Regulation No. 11522 of July 1, 1998, as amended, or Regulation No. 11522.

Any offer, sale or delivery of shares of our common stock or distribution of copies of this prospectus supplement and the accompanying prospectus or any other document relating to shares of our common stock or the offering in Italy may and will be effected in accordance with all Italian securities, tax, exchange control and other applicable laws and regulations, and, in particular, will be: (i) made by an investment firm, bank or financial intermediary permitted to conduct such activities in Italy in accordance with the Legislative Decree No. 385 of September 1, 1993, as amended, or the Italian Banking Law, Legislative Decree No. 58 of February 24, 1998, as amended, Regulation No. 11522, and any other applicable laws and regulations; (ii) in compliance with Article 129 of the Italian Banking Law and the implementing guidelines of the Bank of Italy; and (iii) in compliance with any other applicable notification requirement or limitation which may be imposed by CONSOB or the Bank of Italy.

Any investor purchasing shares of our common stock in the offering is solely responsible for ensuring that any offer or resale of shares of common stock it purchased in the offering occurs in compliance with applicable laws and regulations.

This prospectus supplement and the accompanying prospectus and the information contained herein are intended only for the use of its recipient and are not to be distributed to any third party resident or located in Italy for any reason. No person resident or located in Italy other than the original recipients of this document may rely on it or its content.

In addition to the above (which shall continue to apply to the extent not inconsistent with the implementing measures of the Prospective Directive in Italy), after the implementation of the Prospectus Directive in Italy, the restrictions, warranties and representations set out under the heading “European Economic Area” above shall apply to Italy.

GERMANY

Shares of our common stock may not be offered or sold or publicly promoted or advertised by any underwriter in the Federal Republic of Germany other than in compliance with the provisions of the German Securities Prospectus Act (Wertpapierprospektgesetz — WpPG) of June 22, 2005, as amended, or of any other laws applicable in the Federal Republic of Germany governing the issue, offering and sale of securities.

SPAIN

Neither the common stock nor this prospectus supplement and the accompanying prospectus have been approved or registered in the administrative registries of the Spanish National Securities Exchange Commission (Comisión Nacional del Mercado de Valores). Accordingly, our common stock may not be offered in Spain

except in circumstances which do not constitute a public offer of securities in Spain within the meaning of articles 30bis of the Spanish Securities Markets Law of 28 July 1988 (Ley 24/1988, de 28 de Julio, del Mercado de Valores), as amended and restated, and supplemental rules enacted thereunder.

SWEDEN

This is not a prospectus under, and has not been prepared in accordance with the prospectus requirements provided for in, the Swedish Financial Instruments Trading Act (lagen (1991:980) om handel med finansiella instrument) nor any other Swedish enactment. Neither the Swedish Financial Supervisory Authority nor any other Swedish public body has examined, approved, or registered this document.

SWITZERLAND

The common stock may not and will not be publicly offered, distributed or re-distributed on a professional basis in or from Switzerland and neither this prospectus supplement and the accompanying prospectus nor any other solicitation for investments in our common stock may be communicated or distributed in Switzerland in any way that could constitute a public offering within the meaning of Articles 1156 or 652a of the Swiss Code of Obligations or of Article 2 of the Federal Act on Investment Funds of March 18, 1994. This prospectus supplement and the accompanying prospectus may not be copied, reproduced, distributed or passed on to others without the underwriters' prior written consent. This prospectus supplement and the accompanying prospectus are not prospectuses within the meaning of Articles 1156 and 652a of the Swiss Code of Obligations or a listing prospectus according to article 32 of the Listing Rules of the Swiss Exchange and may not comply with the information standards required thereunder. We will not apply for a listing of our common stock on any Swiss stock exchange or other Swiss regulated market and this prospectus supplement and the accompanying prospectus may not comply with the information required under the relevant listing rules. The common stock offered hereby has not and will not be registered with the Swiss Federal Banking Commission and has not and will not be authorized under the Federal Act on Investment Funds of March 18, 1994. The investor protection afforded to acquirers of investment fund certificates by the Federal Act on Investment Funds of March 18, 1994 does not extend to acquirers of our common stock.

S-81

Legal matters

The validity of the issuance of the shares of common stock offered by this prospectus supplement will be passed upon for us by Morrison & Foerster LLP, New York, New York. The underwriters in this offering are being represented by Greenberg Traurig, LLP, New York, New York.

Experts

The consolidated financial statements of Protalix BioTherapeutics, Inc. and its subsidiary as of December 31, 2006 and 2005, and for each of the years in the three year period ended December 31, 2006 have been incorporated by reference herein in reliance upon the reports of Kesselman & Kesselman, Certified Public Accountant (Isr.), a member of PricewaterhouseCoopers International Limited, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

Incorporation by reference

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

We incorporate by reference the filed documents listed below, except as superseded, supplemented or modified by this prospectus supplement and the accompanying prospectus, and any future filings we will make with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, other than information that furnished but deemed by the rules of the Commission not to have been filed:

our Annual Report on Form 10-K, for the year ended December 31, 2006, as amended by our Annual Report on Form 10-K/A for the year ended December 31, 2006;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2007, and June 30, 2007;

our Current Reports on Form 8-K filed with the Commission on February 5, 2007, February 7, 2007 (as amended by a Form 8-K/A filed on February 22, 2007), March 2, 2007, March 12, 2007, April 18, 2007, May 4, 2007, June 4, 2007, June 20, 2007, June 27, 2007; July 13, 2007, August 6, 2007, August 10, 2007, August 27, 2007, and September 19, 2007; and

the description of our common stock contained in our Registration Statement on Form 8-A filed with the Commission on March 9, 2007.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus supplement shall be deemed to be incorporated by reference in the registration statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement. You may request and obtain a copy of these filings, at no cost, by writing or telephoning us at the following address or phone number:

2 Snunit Street
Science Park
POB 455
Carmiel, Israel 20100
972-4-988-9488
Attn: Yossi Maimon, Chief Financial Officer

S-82

Where you can find more information

This prospectus supplement and the accompanying prospectus are a part of a registration statement on Form S-3, as amended, that we filed with the Commission under the Securities Act. You should rely only on the information contained in this prospectus supplement and the accompanying prospectus or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus supplement and the accompanying prospectus is accurate as of any date other than the date on the front cover of this prospectus supplement, regardless of the time of delivery of this prospectus supplement or any sale of common stock.

We file annual, quarterly and special reports, proxy statements and other information with the Commission. You may read, without charge, and copy the documents we file at the Commission's public reference rooms at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the Commission and paying a fee for the copying cost. Please call the Commission at 1-800-SEC-0330 for further information on the public reference rooms. Our Commission filings are also available to the public at no cost from the Commission's website at www.sec.gov and our website at www.protalix.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this document.

Disclosure of Commission position on indemnification for Securities Act liabilities

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant, the registrant has been informed that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

S-83

PROSPECTUS

5,714,286 Shares

PROTALIX BIOTHERAPEUTICS, INC.

Common Stock

We or selling securityholders may, from time to time, offer to sell common stock. Each time we or a selling securityholder sells securities pursuant to this prospectus, we will provide a supplement to this prospectus that contains specific information about the offering and the specific terms of the securities offered. You should read this prospectus and the applicable prospectus supplement carefully before you invest in our securities.

We or selling securityholders may, from time to time, offer to sell the common stock through public or private transactions, directly or through underwriters, agents or dealers, on or off the American Stock Exchange, or the AMEX, at prevailing market prices or at privately negotiated prices. If any underwriters, agents or dealers are involved in the sale of any of these securities, the applicable prospectus supplement will set forth the names of the underwriter, agent or dealer and any applicable fees, commissions or discounts.

To the extent that any selling securityholder resells any securities, the selling securityholder may be required to provide you with this prospectus and a prospectus supplement identifying and containing specific information about the selling securityholder and the terms of the securities being offered.

Our common stock is traded on the AMEX under the symbol "PLX."

Our securities may not be sold without delivery of the applicable prospectus supplement describing the method and terms of the offering of such offered securities.

Investing in our common stock involves a high degree of risk. You should read and consider carefully the risk factors beginning on page 3 of this prospectus, in the applicable prospectus supplement and in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus is September 26, 2007.

Table of contents

	Page
Forward-Looking Statements	ii
About this Prospectus	1
Summary of Business	2
Risk Factors	3
Use of proceeds	4
Selling Securityholders	5
Plan of Distribution	8
Legal Matters	10
Experts	10
Incorporation by Reference	10
Where You Can Find More Information	11
Disclosure of Commission Position on Indemnification for Securities Act Liabilities	11

i

Forward-looking statements

The statements set forth and incorporated by reference in this prospectus, which are not historical, constitute “forward looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding our expectations, beliefs, intentions

or strategies for the future. When used in this prospectus, the terms “anticipate,” “believe,” “estimate,” “expect” and “intend” or words or phrases of similar import, as they relate to us, our subsidiary or our management, are intended to identify forward-looking statements. We intend that all forward-looking statements be subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are only predictions and reflect our views as of the date they are made with respect to future events and financial performance and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events, except as may be required under applicable law. Forward-looking statements are subject to many risks and uncertainties that could cause our actual results to differ materially from any future results expressed or implied by the forward-looking statements.

Examples of the risks and uncertainties include, but are not limited to, the following:

- the inherent risks and uncertainties in developing drug platforms and products of the type we are developing;
- delays in our preparation and filing of applications for regulatory approval;
- delays in the approval or potential rejection of any applications we file with the United States Food and Drug Administration or other regulatory authorities;
- any lack of progress of our research and development (including the results of clinical trials we are conducting);
- obtaining on a timely basis sufficient patient enrollment in our clinical trials;
- the impact of development of competing therapies and/or technologies by other companies;
- our ability to obtain additional financing required to fund our research programs;
- the risk that we will not be able to develop a successful sales and marketing organization in a timely manner, if at all;
- our ability to establish and maintain strategic license, collaboration and distribution arrangements and to manage our relationships with collaborators, distributors and partners;
- potential product liability risks and risks of securing adequate levels of product liability and clinical trial insurance coverage;
- the availability of reimbursement to patients from health care payors for procedures in which our products are used;
- the possibility of infringing a third party’s patents or other intellectual property rights;
- the uncertainty of obtaining patents covering our products and processes and successfully enforcing them against third parties; and
- the possible disruption of our operations due to terrorist activities and armed conflict, including as a result of the disruption of the operations of regulatory authorities, our subsidiary, our manufacturing facilities and our customers, suppliers, distributors, collaborative partners, licensees and clinical trial sites.

In addition, companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials, even after obtaining promising earlier trial results. These and other risks and uncertainties are detailed under the heading “Risk Factors” herein and in our filings with the Securities and Exchange Commission incorporated by reference in this prospectus. We undertake no obligation to update, and we do not have a policy of updating or revising, these forward-looking statements.

About this prospectus

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the Commission, using a “shelf” registration, or continuous offering process.

Each time that we or our securityholders sell any securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering and certain other offering-specific information. The prospectus supplement also may add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement we make in a prospectus supplement.

The registration statement we filed with the Commission includes exhibits that provide more detail on descriptions of the matters discussed in this prospectus. You should carefully read this prospectus, the related exhibits filed with the Commission and the applicable prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” in this prospectus. You should not assume that the information in this prospectus, the prospectus supplement or any documents incorporated by reference is accurate as of any date other than the date of the applicable document.

You should rely only on the information incorporated by reference or provided in this prospectus and any prospectus supplement. We have not authorized anyone to provide you with different information.

This prospectus, and any prospectus supplement issued in relation to it, contain our trademarks and trademarks of our affiliates, and may contain trademarks, tradenames and service marks of other parties. Unless we indicate otherwise, references in this prospectus to “our company,” “we,” “our,” and “us” refer to Protalix BioTherapeutics, Inc. and our wholly owned subsidiary, Protalix Ltd., an Israeli corporation.

ProCellExtm is our trademark. Each of the other trademarks appearing in this prospectus belongs to its respective holder.

Our principal business address is 2 Snunit Street, Science Park, POB 455, Carmiel, Israel 20100, where we maintain our principal operations, including our research and development activities and our manufacturing facility. Our wholly-owned subsidiary and sole operating unit, Protalix Ltd., is an Israeli corporation. On December 31, 2006, we acquired, through a merger with our wholly-owned subsidiary, Protalix Acquisition Co. Ltd., all of the outstanding shares of Protalix Ltd., in exchange for shares of our common stock, par value \$0.001 per share. As a result, Protalix Ltd. is now our wholly-owned subsidiary, with the former shareholders of Protalix Ltd. acquiring in excess of 99% of our outstanding shares of common stock. In connection with the merger, we effected a one-for-ten reverse stock split and on February 26, 2007, we changed our name to Protalix BioTherapeutics, Inc. Unless otherwise indicated, all share numbers in this prospectus give effect to such reverse stock split. On March 12, 2007, our shares of common stock were listed on the AMEX.

1

Summary of business

We are a clinical stage biopharmaceutical company focused on the development and commercialization of recombinant therapeutic proteins based on our proprietary ProCellExtm protein expression system. Using our

ProCellEx system, we are developing a pipeline of proprietary recombinant therapeutic proteins based on our plant cell-based expression technology that target large, established pharmaceutical markets and that rely upon known biological mechanisms of action. Our initial commercial focus has been on complex therapeutic proteins, including proteins for the treatment of genetic disorders, such as Gaucher disease and Fabry disease, and female infertility disorders. We believe our ProCellEx protein expression system will enable us to develop proprietary recombinant proteins that are therapeutically equivalent or superior to existing recombinant proteins currently marketed for the same indications. Because we are targeting biologically equivalent versions of highly active, well-tolerated and commercially successful therapeutic proteins, we believe our development process is associated with relatively less risk compared to other biopharmaceutical development processes for novel therapeutic proteins.

Our lead product development candidate is prGCD for the treatment of Gaucher disease, which we are developing using our ProCellEx protein expression system. In July 2007, we reached an agreement with the United States Food and Drug Administration, or the FDA, on the final design of our pivotal phase III clinical trial of prGCD through the FDA's special protocol assessment process. In the third quarter of 2007, we initiated enrollment and treatment of patients in our phase III clinical trial. prGCD is our proprietary recombinant form of Glucocerebrosidase (GCD), an enzyme naturally found in human cells that is mutated or deficient in patients with Gaucher disease. The current standard of care for Gaucher disease is enzyme replacement therapy, a medical treatment in which GCD is replaced for patients in whom the enzyme is lacking or dysfunctional. Although Gaucher disease is a relatively rare disease, it represents a large commercial market due to the severity of the symptoms and the chronic nature of the disease. The annual worldwide sales of Cerezyme®, an enzyme replacement therapy produced by Genzyme Corporation and currently the only approved enzyme replacement therapy for Gaucher disease, were approximately \$1 billion in 2006, and \$546.8 million for the six months ended June 30, 2007, according to public reports by Genzyme. prGCD is a plant cell expressed version of the GCD enzyme, developed through our ProCellEx protein expression system. prGCD has an amino acid, glycan and three-dimensional structure that is very similar to its naturally-produced counterpart as well as to Cerezyme, the mammalian cell expressed version of the same protein. We believe prGCD may prove more cost-effective than the currently marketed alternative due to the cost benefits of expression through our ProCellEx system. In addition, based on our laboratory testing, preclinical and clinical results, we believe that prGCD may have the potential for increased potency and efficacy compared to the existing enzyme replacement therapy for Gaucher disease, which may translate into lower dosages and/or less frequent treatments.

In addition to prGCD, we are developing an innovative product pipeline using our ProCellEx protein expression system, including therapeutic protein candidates for the treatment of Fabry disease, a rare genetic lysosomal disorder in humans, and female infertility disorders. We plan to file an investigational new drug application (IND) with the FDA with respect to at least one additional product during 2008. Because these product candidates are based on well-understood proteins with known biological mechanisms of action, we believe we may be able to reduce the development risks and time to market for our product candidates. We hold the worldwide commercialization rights to our proprietary development candidates and we intend to establish an internal, commercial infrastructure and targeted sales force to market prGCD and our other products, if approved, in North America, the European Union and in other significant markets, including Israel.

2

Risk factors

Investment in our securities involves a high degree of risk. Our business, financial condition or results of operations could be adversely affected by any of these risks. If any of these risks occur, the value our common stock and our

other securities may decline. You should carefully consider the risk factors discussed in this section, as well as the discussion set forth under the caption "Risk Factors" in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2006, in any other filing we make with the Commission subsequent to the date of this prospectus, each of which are incorporated herein by reference, and in any supplement to this prospectus, before making your investment decision.

Risks Related to this Offering

If we effect an underwritten offering of our common stock, we may offer the shares of our common stock at a significant discount to the market price which could cause a decline in our stock price.

We effected a reverse merger on December 31, 2006. Therefore, all quoted sales prices of our common stock through December 31, 2006 did not fully reflect the value attributable to our current operations of Protalix Ltd. Further, the trading volume for the common stock throughout 2006 was very small and trades were infrequent. This is common for a shell company that has no business operations. Under such circumstances, a small sales volume can have a disproportionate impact on sales price, a strong indication that the share price did not reflect true market valuation. Trading volume and trade frequency since December 31, 2006 also does not provide a guide to determining the fair value of our common stock because, to date, more than 99% of the shares of our common stock are not registered with the Commission and are not available for sale in the public market, the number of trades in the public market have been infrequent and the average daily volume continues to be very low. If we elect to pursue an underwritten offering of our common stock, the common stock may be offered at a price that reflects a substantial discount to the market price of the common stock at the time of sale. The offer or sale of shares of common stock at a discount to the reported market price may cause a decline in the market price of our common stock, which may have a material adverse effect on the trading market for our common stock.

We will have broad discretion in how we use the proceeds of any offering we conduct under this prospectus and we may not apply the proceeds to uses that will benefit stockholders.

We will retain broad discretion over the use of the net proceeds of any securities offered by us hereby, and you will be relying on the judgment of our Board of Directors and management regarding the application of these proceeds. Although we expect to use the net proceeds from an offering for research and development expenses, clinical trials, establishing an internal sales force and general corporate and administrative purposes, we have not allocated these net proceeds for specific purposes other than to pay for certain expenses related to the construction and furnishing of a new manufacturing facility. It is possible that a substantial portion of the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. When we issue shares of common stock, we will describe in the applicable prospectus supplement the intended use of proceeds from the sale of the common stock.

3

Use of proceeds

We will retain broad discretion over the use of the net proceeds of the securities offered by us hereby. Unless the applicable prospectus supplement states otherwise, the net proceeds from the securities sold by us will be added to our general corporate funds and may be used for research and development expenses, clinical trials, establishing an internal sales force and general corporate and administrative purposes. We expect to use a portion of the proceeds of any offering by us in connection with the construction and furnishing of a new manufacturing facility. Until the net

proceeds have been used, they will be invested in short-term marketable securities. If we elect at the time of the issuance of the securities to make different or more specific use of proceeds other than as described in this prospectus, the change in use of proceeds will be described in the applicable prospectus supplement.

We will not receive any proceeds from the sale of securities by any selling securityholder.

4

Selling securityholders

We are registering for resale the shares covered by this prospectus to permit the selling securityholders identified below and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a securityholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares when and as they deem appropriate. The securityholders acquired these shares from us in connection with the merger on December 31, 2006 between our wholly owned subsidiary, Protalix Acquisition Co. Ltd., and Protalix Ltd., in which we acquired all of the outstanding shares of Protalix Ltd. in exchange for shares of our common stock, or upon the exercise of warrants issued in connection with such merger.

The following table sets forth:

- the name of the securityholders;
- the number and percentage of shares of our common stock that the securityholders beneficially owned prior to the offering for resale of the shares under this prospectus;
- the number of shares of our common stock that may be offered for resale for the account of the securityholders under this prospectus; and
- the number and percentage of shares of our common stock to be beneficially owned by the securityholders after the offering of the resale shares (assuming all of the offered resale shares are sold by the securityholders).

The number of shares in the column “Number of Shares Being Offered” represents all of the shares of our common stock that each securityholder may offer under this prospectus. We do not know how long the securityholders will hold the shares before selling them or how many shares they will sell, and we currently have no agreements, arrangements or understandings with any of the shareholders regarding the sale of any of the resale shares. The shares of our common stock offered by this prospectus may be offered from time to time by the securityholders listed below.

This table is prepared solely based on information supplied to us by the listed securityholders and other public documents filed with the Commission, and assumes the sale of all of the resale shares. The applicable percentages of beneficial ownership are based on an aggregate of 65,685,318 shares of our common stock issued and outstanding on September 15, 2007, adjusted as may be required by rules promulgated by the Commission.

Shareholders	Number of Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Number of Shares Beneficially Owned After Offering	
	Number	Percent		Number	Percent

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

Bio-Cell Ltd. ⁽¹⁾	14,466,319	22.0%	403,502	14,062,817	20.3%
Meytav Technological Enterprises Initiation Center Ltd.	1,301,026	2.0	36,289	1,264,737	1.8
Dr. Yoseph Shaaltiel ⁽²⁾	3,188,431	4.8	88,933	3,099,498	4.5
Doron Peleg	662,363	1.0	18,475	643,888	*
Prof. Gad Galili	349,017	*	9,735	339,282	*
Techno-Rov Holdings (1993) Ltd. ⁽³⁾	6,186,046	9.4	172,544	6,013,502	8.7
Marathon Investments Ltd. ⁽⁴⁾	6,556,381	10.0	182,874	6,373,507	9.2
Dan Volpert & Nati Volpert and Ofer Drori JT TEN	210,607	*	5,874	204,733	*
Dan Volpert	14,232	*	397	13,835	*
Avraham Eylon	159,971	*	4,462	155,509	*
Amos Naim	233,818	*	6,522	227,296	*
Dror Shomrat	96,905	*	2,703	94,202	*
Michael Scheinbach	87,743	*	2,447	85,296	*
Silverstream International Asset Management Ltd.	175,485	*	4,895	170,590	*
Meni Mor	423,414	*	11,810	411,604	*
Tomer Klein	146,167	*	4,077	142,090	*
A. Sheratzky Holdings Ltd.	188,496	*	5,258	183,238	*

5

Shareholders	Number of Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Number of Shares Beneficially Owned After Offering	
	Number	Percent		Number	Percent
Nehemia Tanne	652,834	*	18,209	634,625	*
Remer Holdings Inc.	566,710	*	15,807	550,903	*
Nir Margalit	10,933	*	305	10,628	*
Avner Pinsker	10,994	*	307	10,687	*
Pontifax (Cayman) L.P. ⁽⁵⁾	2,826,964	4.2	83,521	2,743,443	3.9
Pontifax (Israel) L.P. ⁽⁶⁾	3,093,380	4.6	91,392	3,001,988	4.2
The Zabłudowicz Trust	2,981,245	4.5	83,154	2,898,091	4.2
Docor International B.V.	1,571,005	2.4	43,819	1,527,186	2.2
Atara Technology Ventures Ltd.	359,401	*	10,025	349,376	*
Ziff Asset Management, L.P.	2,650,002	4.0	73,915	2,576,087	3.7
Shimon Yaakobov	239,437	*	6,678	232,759	*
Hertzel Baibabiov, Nir Omid, Ronny Filo, Yaron Lizbona, Tomer Sun, Dorit Murten JT TEN	147,877	*	4,125	143,752	*
Frost Gamma Investment Trust ⁽⁷⁾	9,766,273	14.8	264,134	9,205,596	13.7
Dr. Jane Hsiao ⁽⁸⁾	1,134,060	1.7	31,632	1,102,428	1.6
Glenn L. Halpryn ⁽⁹⁾	820,557	1.2	21,827	760,720	1.1
Ernest M. Halpryn ⁽¹⁰⁾	488,998	*	13,639	475,359	*
IVC Investors Ltd.	1,956,181	3.0	54,563	1,901,618	2.7
Steven Jerry Glauser, TTEE, Steven Jerry Glauser Trust dated 3/8/02	1,467,119	2.2	40,922	1,426,197	2.0
Subbarao Uppaluri	56,702	*	1,582	55,120	*
Steven D. Rubin	56,702	*	1,582	55,120	*
Stephen H. Bittel	195,658	*	5,457	190,201	*

Ann D. Singer and Joseph A. Singer TTEE, Ann D. Singer Revocable Trust 2/18/98	46,441	*	1,295	45,146	*
Joseph S. Levy, TTEE, Dr. Joseph S. Levy Revocable Trust, dated 6/17/98	232,204	*	6,477	225,727	*
Carole R. Levy, TTEE, Carole R. Levy Revocable Trust dated 6/17/98	232,204	*	6,477	225,727	*
C.C.R. Trustees (1999) Ltd. ⁽¹¹⁾	3,375,628	4.9	145,937	3,229,691	4.4

* less than 1%.

- (1) Zeev Bronfeld, one of our directors, is a director and Chief Executive Officer of Biocell Ltd. Biocell's investment and voting decisions are made collectively by its Board of Directors. Mr. Bronfeld disclaims beneficial ownership of these shares.
- (2) Includes 244,324 shares of our common stock issuable upon exercise of outstanding options within 60 days of September 15, 2007.
- (3) Amos Bar-Shalev, one of our directors, is the manager of Techno-Rov Holdings and has the power to control its investment decisions. Mr. Bar-Shalev disclaims beneficial ownership of these shares.
- (4) Sharon Toussia-Cohen, one of our directors, is a director and Chief Executive Officer of Marathon Investments Ltd. Mr. Toussia-Cohen disclaims beneficial ownership of these shares.
- (5) Consists of 2,826,964 shares of our common stock, 1,378,278 of which shares are owned of record and 1,448,686 of which shares are issuable upon exercise of options that are exercisable within 60 days of September 15, 2007. Eli Hurvitz, the Chairman of our Board of Directors, is the chairman of Pontifax G.P. Ltd.
- (6) Consists of 3,093,380 shares of our common stock, 1,508,169 of which shares are owned of record and 1,585,211 of which shares are issuable upon exercise of options that are exercisable within 60 days of September 15, 2007. Eli Hurvitz is the chairman of Pontifax G.P. Ltd.

6

- (7) Frost Gamma, L.P. is the sole and exclusive beneficiary of Frost Gamma Investments Trust. Dr. Phillip Frost, one of our directors, is the sole limited partner of Frost Gamma, L.P. The general partner of Frost Gamma, L.P. is Frost Gamma, Inc. and the sole shareholder of Frost Gamma, Inc. is Frost-Nevada Corporation. Dr. Frost is also the sole shareholder of Frost-Nevada Corporation. Does not include 1,937,708 shares of common stock issuable to Dr. Frost upon the exercise of outstanding options that are not exercisable within 60 days of September 15, 2007.
- (8) Does not include 387,542 shares of common stock issuable upon exercise of outstanding options that are not exercisable within 60 days of September 15, 2007.
- (9) Does not include 1,956,181 shares of common stock held by IVC Investors Ltd. Glenn Halpryn is a beneficial owner of IVC Investors Ltd.
- (10) Does not include 1,956,181 shares of common stock held by IVC Investors Ltd. Ernest Halpryn is the managing member of IVC Investors Ltd.
- (11) C.C.R. Trustees is the trustee of our 2006 Stock Incentive Plan. To comply with certain Israeli statutes, the trustee has control over the options we grant to our employees, including our executive officers, and, to a certain extent, the shares of common stock issuable upon the exercise of such options. The shares listed include 20,137 outstanding shares of common stock and options to purchase 3,355,491 shares of common stock. The following executive officers intend to sell shares of common stock to be issued upon the exercise of vested stock options through the trustee:

David Aviezer, Ph.D., MBA, 49,793 shares of common stock;
Einat Brill Almon, Ph.D., 13,492 shares of common stock; and
Yossi Maimon, 17,293 shares of common stock.

7

Plan of distribution

We, or any selling securityholders, may sell the securities offered under this prospectus:

- through underwriters, which may include, but are not limited to, UBS Securities LLC and CIBC World Markets Corp.;
- through dealers;
- through agents; or
- directly to purchasers.

Each prospectus supplement relating to an offering of securities will state the terms of the offering, including:

- the names of any underwriters, dealers, or agents;
- the public offering or purchase price of the offered securities and the net proceeds that we will receive from the sale;
- any underwriting discounts and commissions or other items constituting underwriters' compensation;
- any discounts, commissions, or fees allowed or paid to dealers or agents; and
- any securities exchange on which the offered securities may be listed.

Distribution Through Underwriters

We, or any selling securityholders, may offer and sell securities from time to time to one or more underwriters who would purchase the securities as principal for resale to the public, either on a firm commitment or best efforts basis. If we, or the selling securityholders, sell securities to underwriters, we, and/or the selling securityholders, as applicable, will execute an underwriting agreement with the underwriters at the time of the sale and will name them in the applicable prospectus supplement. In connection with these sales, the underwriters may be deemed to have received compensation from us, and/or the selling securityholders, as applicable, in the form of underwriting discounts and commissions. The underwriters also may receive commissions from purchasers of securities for whom they may act as agent. Unless we, or the selling securityholders, specify otherwise in the applicable prospectus supplement, the underwriters will not be obligated to purchase the securities unless the conditions set forth in the underwriting agreement are satisfied, and if the underwriters purchase any of the securities, they will be required to purchase all of the offered securities. The underwriters may acquire the securities for their own account and may resell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or varying prices determined at the time of sale. The underwriters may sell the offered securities to or through dealers, and those dealers may receive discounts, concessions, or commissions from the underwriters as well as from the purchasers for whom they may act as agent. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

Distribution Through Dealers

We, or any selling securityholders, may offer and sell securities from time to time to one or more dealers who would purchase the securities as principal. The dealers then may resell the offered securities to the public at fixed or varying

prices to be determined by those dealers at the time of resale. We, or the selling securityholders, will set forth the names of the dealers and the terms of the transaction in the applicable prospectus supplement.

Distribution Through Agents

We, or any selling securityholders, may offer and sell securities on a continuous basis through agents that become parties to an underwriting or distribution agreement. We, or the selling securityholders, will name any agent involved in the offer and sale and describe any commissions payable by us in the applicable prospectus supplement. Unless we specify otherwise in the applicable prospectus supplement, the agent will be acting on a best efforts basis during the appointment period.

8

Direct Sales

We, or any selling securityholders, may sell directly to, and solicit offers from, institutional investors or others who may be deemed to be underwriters, as defined in the Securities Act for any resale of the securities. We, or the selling securityholders, will describe the terms of any sales of this kind in the applicable prospectus supplement.

General Information

Underwriters, dealers, or agents participating in an offering of securities may be deemed to be underwriters, and any discounts and commissions received by them and any profit realized by them on resale of the offered securities for whom they act as agent, may be deemed to be underwriting discounts and commissions under the Securities Act.

We, or any selling securityholders, may offer to sell securities either at a fixed price or at prices that may vary, at market prices prevailing at the time of sale, at prices related to prevailing market prices, or at negotiated prices. Securities may be sold in connection with a remarketing after their purchase by one or more firms, including our affiliates, acting as principal for their own accounts or as our agent.

In connection with an underwritten offering of securities, the underwriters may engage in over-allotment, stabilizing transactions, and syndicate covering transactions in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which creates a short position for the underwriters. The underwriters may enter bids for, and purchase, securities in the open market in order to stabilize the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover short positions. In addition, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions, or otherwise. These activities may cause the price of the securities to be higher than it would otherwise be. Those activities, if commenced, may be discontinued at any time.

Under agreements entered into with us, underwriters and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution for payments the underwriters or agents may be required to make.

In compliance with the guidelines of the National Association of Securities Dealers, Inc., or the NASD, the maximum commission or discount to be received by any NASD member or independent broker-dealer may not exceed 8% of the initial gross proceeds from the sale of any security being sold.

Although we expect that delivery of securities generally will be made against payment on or about the third business day following the date of any contract for sale, we may specify a longer settlement cycle in the applicable prospectus supplement. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to a trade expressly agree otherwise. Accordingly, if we have specified a longer settlement cycle in the applicable prospectus supplement for an offering of securities, purchasers who wish to trade those securities on the date of the contract for sale, or on one or more of the next succeeding business days as we will specify in the applicable prospectus supplement, will be required, by virtue of the fact that those securities will settle in more than T+3, to specify an alternative settlement cycle at the time of the trade to prevent a failed settlement and should consult their own advisors in connection with that election.

Certain of our securityholders may have pledged shares of their common stock in connection with borrowing arrangements. In connection with a default and foreclosure pursuant to such a borrowing arrangement, the pledgee may use this prospectus to sell the pledged selling securityholder shares.

9

Legal matters

The validity of the issuance of the shares of common stock offered by this prospectus will be passed upon for us by Morrison & Foerster LLP, New York, New York.

Experts

The consolidated financial statements of Protalix BioTherapeutics, Inc. and its subsidiary as of December 31, 2006 and 2005, and for each of the years in the three year period ended December 31, 2006 have been incorporated by reference herein in reliance upon the reports of Kesselman & Kesselman, Certified Public Accountant (Isr.), a member of PricewaterhouseCoopers International Limited, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

Incorporation by reference

We incorporate by reference the filed documents listed below, except as superseded, supplemented or modified by this prospectus, and any future filings we will make with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, other than information that furnished but deemed by the rules of the Commission not to have been filed:

- our Annual Report on Form 10-K, for the year ended December 31, 2006, as amended by our Annual Report on Form 10-K/A for the year ended December 31, 2006;
- our Quarterly Report on Form 10-Q for the quarters ended March 31, 2007, and June 30, 2007;
- our Current Reports on Form 8-K filed with the Commission on February 5, 2007, February 7, 2007 (as amended by a Form 8-K/A filed on February 22, 2007), March 2, 2007, March 12, 2007, April 18, 2007,

Edgar Filing: Protalix BioTherapeutics, Inc. - Form 424B5

May 4, 2007, June 4, 2007, June 20, 2007, June 27, 2007; July 13, 2007, August 6, 2007, August 10, 2007, August 27, 2007, and September 19, 2007; and

- the description of our common stock contained in our Registration Statement on Form 8-A filed with the Commission on March 9, 2007.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this registration statement, and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which de-registers all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement. You may request and obtain a copy of these filings, at no cost, by writing or telephoning us at the following address or phone number:

2 Snunit Street
Science Park
POB 455
Carmiel, Israel 20100
972-4-988-9488
Attn: Yossi Maimon, Chief Financial Officer

10

Where you can find more information

This prospectus is part of a registration statement on Form S-3 that we filed with the Commission under the Securities Act. You should rely only on the information contained in this prospectus or incorporated by reference in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or any sale of common stock.

We file annual, quarterly and current reports, proxy statements and other information with the Commission. You may read, without charge, and copy the documents we file at the Commission's public reference rooms at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the Commission and paying a fee for the copying cost. Please call the Commission at 1-800-SEC-0330 for further information on the public reference rooms. Our Commission filings are also available to the public at no cost from the Commission's website at www.sec.gov and our website at www.protalix.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this document.

Disclosure of commission position on indemnification for securities act liabilities

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant, the registrant has been informed that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

