

## **ITEM 1A. Risk Factors.**

### **Risks Related To Our Business**

*We have a history of operating losses and may not achieve or sustain profitability.*

Until fiscal 2009, we incurred losses in each year since our inception, and may incur additional losses over the next several years. As of December 31, 2009, we had an accumulated deficit of \$260.3 million. These losses resulted principally from costs incurred in our research and development programs and from our general and administrative expenses. These losses, among other things, have had and will continue to have an adverse effect on our stockholders' equity, total assets and working capital.

We expect to continue to incur significant operating expenses in the foreseeable future as we seek to:

- complete our Phase III clinical trials for Prochymal for GvHD and Crohn's disease;
- complete our Phase II clinical trial for Prochymal for cardiac indications, and, if supported by the Phase II clinical trial, initiate Phase III clinical trials;
- complete our Phase II clinical trial for Prochymal for type 1 diabetes, and, if supported by the Phase II clinical trial, initiate Phase III clinical trials;
- complete our animal studies for Prochymal for acute radiation syndrome, and, if supported by the preclinical studies, initiate further studies;
- maintain, expand and protect our intellectual property portfolio; and
- add operational, financial, accounting, facilities engineering and information systems personnel, consistent with expanding our operations and our status as a public company.

In addition, during 2008 we sold our Osteocel business unit, including our only commercially available product. While we expect to achieve commercialization of at least some of our other products, there can be no assurances when, or if, we will be able to do so.

The extent of our future operating losses or profits is highly uncertain, and we may not achieve or sustain profitability. If we are unable to achieve and then maintain profitability, the market value of our common stock will decline and you could lose part or all of your investment.

*The current credit and financial market conditions may exacerbate certain risk affecting our business.*

We rely upon third parties for certain aspects of our business, including collaboration partners, wholesale distributors, contract clinical trial providers, contact manufacturers and third-party suppliers. Because of the recent tightening of global credit and the volatility in the financial markets, there may be a delay or disruption in the performance or satisfaction of commitments to us by these third parties, which could adversely affect our business.

*If we are not able to recruit and retain qualified management and scientific personnel, we may fail in developing our technologies and biologic drug candidates.*

Our future success depends to a significant extent on the skills, experience and efforts of the principal members of our scientific, management and sales personnel. These members include C. Randal Mills, Ph.D., Michelle L. Williams, Ph.D., Philip R. Jacoby, Jr., and Lode Debrabandere Ph.D. The loss of any or all of these individuals could harm our business and might significantly delay or prevent the achievement of research, development or business objectives. We have entered into employment agreements with Dr. Mills and Dr. Debrabandere. The existence of an employment agreement does not, however, guarantee retention of these employees, and we may not be able to retain those individuals for the duration of or beyond the end of their respective terms. Except for Dr. Mills and Dr. Debrabandere, none of our employees is employed for a specified term. Competition for personnel is intense. We may be unable to retain our current personnel or attract or integrate other qualified management and scientific personnel in the future.

*If the potential of our stem cell therapies to treat diseases is not realized, the value of our technology and our development programs could be significantly reduced.*

The potential of our stem cell therapies to treat diseases is currently being explored by us. We have not proven in clinical trials that our stem cell therapies will be a safe and effective treatment for any disease. Our stem cell therapies are susceptible to various risks, including undesirable and unintended side effects, unintended immune system responses, inadequate therapeutic efficacy or other characteristics that may prevent or limit their marketing approval or commercial use. We have not yet completed all of the testing necessary to allow us to make a determination that serious unintended consequences will not occur. If the potential of our stem cell therapies to treat disease is not realized, the value of our technology and our development programs could be significantly reduced. Because our biologic drug candidates are based on MSCs, any negative developments regarding the therapeutic potential or side effects of MSCs could have a material adverse effect on our business, financial condition and results of operations.

***Our product development programs are based on novel technologies and are inherently risky.***

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of our therapeutics creates significant challenges in regards to product development and optimization, manufacturing, government regulation, third-party reimbursement and market acceptance. For example, the FDA has relatively limited experience with stem cell therapies. None has been approved by the FDA for commercial sale, and the pathway to regulatory approval for our biologic drug candidates may accordingly be more complex and lengthy. Additionally, stem cells are subject to donor-to-donor variability, which can make standardization more difficult. As a result, the development and commercialization pathway for our therapies may be subject to increased uncertainty, as compared to the pathway for new conventional drugs.

***There are no FDA approved treatments for some of the disease indications we are pursuing. This could complicate and delay FDA approval of our biologic drug candidates.***

There are no drugs or therapies currently approved with stated indications for the first-line treatment of acute GvHD or the treatment of steroid refractory GvHD. As a result, the clinical efficacy endpoints, or the criteria to measure the intended results of treatment, for our biologic drug candidate Prochymal for the treatment of GvHD may be difficult to determine. In addition, patients battling GvHD and who, therefore, are candidates for treatment with Prochymal, are typically very ill as a result of an underlying genetic or oncologic condition. Due to the graveness of their underlying disease and the very serious complications and disorders that often accompany acute GvHD, many of these patients will die from causes other than GvHD prior to the completion of the study even if their GvHD responds favorably to treatment with Prochymal. The resulting reduction in the number of patients available for evaluation at the end of the study may make it more difficult for us to demonstrate efficacy, as necessary to obtain FDA approval to market Prochymal for commercial sale.

There are also no drugs or therapies currently approved with stated indications for the repair of heart muscle following heart attack. As a result, the clinical endpoints for our biologic drug candidate Prochymal for cardiac indications may be difficult to determine. In the case of Prochymal for the treatment of Crohn's disease, there are other products approved for the treatment of this disease, so it is expected that the clinical efficacy endpoints for Prochymal for this indication will be established by comparison with these already approved treatments. In order to obtain FDA approval for any indication, we will have to demonstrate, among other things, that our biologic drug candidate is safe and effective for that indication. The results of our clinical trials must be statistically significant, meaning that there must be sufficient data to indicate that it is unlikely the outcome occurred by chance. These challenges may prevent us from developing and commercializing products on a timely or profitable basis, or at all.

***Our biologic drug candidates represent new classes of therapy that the marketplace may not understand or accept.***

Even if we successfully develop and obtain regulatory approval for our biologic drug candidates, the market may not understand or accept them. We are developing biologic drug candidates that represent novel treatments and will compete with a number of more conventional products and therapies manufactured and marketed by others, including major pharmaceutical companies. The degree of market acceptance of any of our developed and potential products will depend on a number of factors, including:

- the clinical safety and effectiveness of our products and their perceived advantage over alternative treatment methods;
- our ability to demonstrate that Prochymal can have a clinically significant effect, initially on steroid refractory GvHD and acute GvHD, and then also the other indications for which we seek approval;
- our ability to separate ourselves from the ethical controversies associated with stem cell drug candidates derived from human embryonic or fetal tissue;
- ethical controversies that may arise regarding the use of stem cells or human tissue of any kind, including adult stem cells, adult bone marrow and other adult tissues derived from donors;

- adverse events involving our biologic drug candidates or the products or product candidates of others that are stem cell based;
- our ability to supply a sufficient amount of our product to meet regular and repeated demand in order to develop a core group of medical professionals familiar with and committed to the use of our products; and
- the cost of our products and the reimbursement policies of government and third-party payors.

If the health care community does not accept our potential products for any of the foregoing reasons, or for any other reason, it could affect our sales, having a material adverse effect on our business, financial condition and results of operations.

***The successful commercialization of our biologic drug candidates, or any of our other potential stem cell therapeutics, will depend on obtaining reimbursement from third-party payors.***

If we successfully develop and obtain necessary regulatory approvals, we intend to sell our biologic drug candidates initially in the United States and Canada. In the United States, the market for any pharmaceutical product is affected by the availability of reimbursement from third-party payors, such as government health administration authorities, private health insurers, health maintenance organizations and pharmacy benefit management companies. Stem cell therapies like Prochymal and Chondrogen may be expensive compared with standard pharmaceuticals, due to the higher cost and complexity associated with the research, development and production of stem cell therapies, the small size and large geographic diversity of the target patient population for some indications, and the complexity associated with distribution of stem cell therapies which require special handling, storage and shipment procedures and protocols. This, in turn, may make it more difficult for us to obtain adequate reimbursement from third-party payors, particularly if we cannot demonstrate a favorable cost-benefit relationship. Third-party payors may also deny coverage or offer inadequate levels of reimbursement for our potential products if they determine that the product has not received appropriate clearances from the FDA or other government regulators or is experimental, unnecessary or inappropriate. For example, patients battling GvHD and who, therefore, are candidates for treatment with Prochymal, are typically very ill as a result of an underlying genetic or oncologic condition. Because these patients have a low probability of survival (whether or not their GvHD is successfully treated), third-party payors may resist reimbursing the cost of treatment.

In some of the other countries in which we or other entities with which we collaborate, including Genzyme Corporation, may seek to market our products, the pricing of prescription pharmaceutical products and services and the level of government reimbursement are subject to governmental control. In these countries, pricing negotiations with governmental authorities can take six to twelve months or longer after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we or our collaborators may be required to conduct one or more clinical trials that compare the cost effectiveness of our biologic drug candidates or products to other available therapies. Conducting one or more additional clinical trials would be expensive and result in delays in commercialization of our products.

Managing and reducing health care costs has been a general concern of federal and state governments in the United States and of foreign governments. Although we do not believe that any recently enacted or presently proposed legislation should impact our business, we might be subject to future regulations or other cost-control initiatives that materially restrict the price we receive for our products. In addition, third-party payors are increasingly challenging the price and cost-effectiveness of medical products and services, and many limit reimbursement for newly approved health care products. In particular, third-party payors may limit the indications for which they will reimburse patients who use any products that we may develop. Cost control initiatives could decrease the price for products that we may develop, which would result in lower product revenues to us.

***Our dependence upon a limited supply of bone marrow donors and biologics growth media may impact our ability to produce sufficient quantities of our biologic drug candidates as necessary to complete our clinical trials, and if our trials are successful, to meet product demand.***

The population of acceptable bone marrow donors is limited to volunteers between the ages of 18 and 30. In addition, potential donors are prescreened for a variety of health conditions and are only allowed to donate bone marrow a total of six times in their lifetime, further limiting the total number of potential donors. The amount of bone marrow donated may be insufficient for us to mass produce our biologic drug candidates. In addition, the expansion of MSCs through our proprietary manufacturing methods utilizes biologic growth media which may be in limited supply. Future government regulation or health concerns may also reduce the number of donors or otherwise limit the amount of bone marrow available to us. If we cannot secure quantities of bone marrow or biologic growth media sufficient to meet the manufacturing demands for our clinical trials, we might not be able to complete our clinical trials and obtain marketing approval for our biologic drug candidates. Moreover, even if our clinical trials are successful and we obtain marketing approval for our biologic drug candidates, our inability to secure enough bone marrow to meet product demand would limit our potential revenues.

***Our biologic drug candidates are derived from human bone marrow sources and therefore have the potential for disease transmission.***

The utilization of donated bone marrow creates the potential for transmission of communicable disease, including but not limited to human immunodeficiency virus ("HIV") viral hepatitis, syphilis, Creutzfeldt-Jakob disease, or the human form of "mad cow" disease, and other

viral, fungal or bacterial pathogens. Although we are required to comply with federal and state regulations intended to prevent communicable disease transmission, and our suppliers of adult human bone and bone marrow are also required to comply with such regulations in connection with their collection, storage and supply to us:

- we or our suppliers may fail to comply with such regulations;
- even with compliance, our products might nevertheless be viewed by the public as being associated with transmission of disease; and
- a patient that contracts an infectious disease might assert that the use of our products resulted in disease transmission, even if the patient became infected through another source.

Any actual or alleged transmission of communicable disease could result in patient claims, litigation, distraction of management's attention and potentially increased expenses. Further, any failure in screening, whether by us or other manufacturers of similar products, could adversely affect our reputation, the support we receive from the medical community and overall demand for our products. As a result, such actions or claims, whether or not directed at us, could have a material adverse effect on our reputation with our customers and our ability to market our products, which could have a material adverse effect on our business, financial condition and results of operations.

***We may not be able to manufacture our biologic drug candidates in quantities sufficient for later stage clinical studies or for commercial sale.***

If we successfully obtain marketing approval for one of our biologic drug candidates, we may not be able to produce sufficient quantities of the product at an acceptable cost. Commercial-scale production of therapies made from live human mesenchymal stem cells involves production in small batches and strict adherence to complex manufacturing and storage protocols and procedures. Our biologic drug candidates are inherently more difficult to manufacture at commercial-scale than chemical pharmaceuticals, which are manufactured using precise chemical formulations and operational methods.

***We use third-party collaborators to help us develop and commercialize our products, and our ability to commercialize such products may be impaired or delayed if collaborations are unsuccessful.***

We have arrangements in place with third-party collaborators as a means to help us with research and development efforts or marketing and distribution. For example:

- we are party to a Collaboration Agreement with Genzyme Corporation for the development and commercialization of Prochymal and Chondrogen outside the United States and Canada for certain indications, and with the potential for the development and commercialization of these product candidates for additional indications in the future;
- we have a collaboration with JCR Pharmaceuticals Co., Ltd. granting to JCR an exclusive right to Prochymal for the treatment of GvHD in Japan; and
- we have a collaboration with Genzyme Corporation to develop effective countermeasures to nuclear terrorism and other radiological emergencies. The initial focus of the collaboration is to develop Prochymal to treat the potentially lethal complications of acute radiation syndrome.

We may enter into additional collaborations in the future. We are dependent upon the success of our current and any future collaborators in performing their responsibilities in connection with the relevant collaboration. If we fail to maintain these collaborative relationships for any reason, we would need to undertake on our own and at our own expense, or find other collaborators, to perform the activities we currently anticipate will be performed by our collaborators. This would substantially increase our cash requirements. We may not have the capability or financial capacity to undertake these activities on our own, or we may not be able to find other collaborators on acceptable terms, or at all. This may limit the programs we are able to pursue and result in significant delays in the development, sale and manufacture of our products, and may have a material adverse effect on our business.

We are subject to a number of risks associated with our dependence upon our collaborative relationships, including:

- our collaborators may not cooperate with us or perform their obligations under our agreements with them;
- we cannot control the quality, amount and timing of our collaborators' resources that will be devoted to performing their responsibilities under our agreements with them, and our collaborators may choose to pursue alternative technologies in preference to those being developed in collaboration with us;
- refusal to or failure of our collaborators to perform their responsibilities in a timely manner, including breach;
- the right of the collaborator to terminate its collaboration agreement with us for reasons outside our control, and in some cases on limited notice;
- business combinations and changes in a collaborator's business strategy may adversely affect the party's willingness or ability to complete its obligations;
- loss of significant rights to our collaborative parties if we fail to meet our obligations;
- disagreements as to ownership of clinical trial results or regulatory approvals;
- withdrawal of support by a collaborator following development or acquisition by the collaborator of competing products; and
- disagreements with a collaborator regarding the collaboration agreement or ownership of intellectual property or other proprietary rights.

Due to these factors and other possible events, we could suffer delays in the research, development or commercialization of our products or we may become involved in litigation or arbitration, which would be time consuming and expensive.

***Two of our most significant collaborative arrangements are with Genzyme Corporation, and our ultimate success may depend upon performance on the part of Genzyme and the success of these collaborations.***

We are party to two collaborative arrangements with Genzyme, one for the development and commercialization of Prochymal and Chondrogen outside the United States and Canada for certain indications, and the other to develop effective countermeasures to nuclear terrorism and other radiological emergencies. These collaborations are subject to all of the risks and uncertainties applicable to collaborative arrangements generally, including those described above. In addition, these collaborations are subject to a number of risks and uncertainties specific to the transactions and the parties.

Under our collaborative arrangement with Genzyme for commercialization of Prochymal and Chondrogen outside the United States, Genzyme agreed to make two up front payments to us totaling \$130.0 million, which have been received. In addition, we have the opportunity to earn up to an additional \$1.25 billion in milestone payments pursuant to this collaboration. Receipt of these additional milestone payments is conditioned upon the achievement of the applicable development, regulatory and sales milestones, all of which are subject to all of the risks and uncertainties otherwise applicable to our business, including the success of Prochymal and Chondrogen. Genzyme has the right to terminate the collaboration at any time after July 1, 2009. Genzyme also has the right to "opt-out" of further participation with regard to Chondrogen development, whereupon all rights to Chondrogen will revert to us, but our opportunity to earn Chondrogen-related development, regulatory and sales milestones of up to approximately \$500.0 million will cease. The success of this collaboration for us will in part be dependent upon Genzyme, including determinations regarding the exercise of its termination and opt-out rights, and its success in obtaining timely regulatory approvals for the marketing of products outside of the United States, and ability to generate sales sufficient to trigger milestone and royalty payments to us.

Under our collaborative arrangement with Genzyme for the development of effective countermeasures to nuclear terrorism and other radiological emergencies, we were awarded in January 2008 a contract from the U.S. Department of Defense to develop and supply Prochymal for ARS. We are carrying out this contract in partnership with Genzyme, with us contributing Prochymal and our corresponding safety and advocacy database to the effort, and with Genzyme lending its mass product development and large scale commercialization expertise.

Genzyme has significantly greater resources than we do, and these collaborations are not as core to its business, as they are to ours. We are dependent upon Genzyme's continued performance under these collaborations, and any determination by Genzyme not to proceed or perform, or any material adverse event that affects Genzyme's ability or desire to perform, under either of these collaborations may have a material adverse effect on our business.

***We are currently dependent upon third-parties for services and raw materials needed for the manufacture of our biologic drug candidates, and if these products are successfully commercialized, may become dependent upon third-parties for their distribution. If any of these third parties fail or are unable to perform in a timely manner, our ability to manufacture and deliver could be compromised.***

In order to produce our biologic drug candidates for use in clinical studies, and to produce any of our biologic drug candidates that may be approved for commercial sale, we require biological media, reagents and other highly specialized materials. This is in addition to the bone marrow aspirate used in the manufacture of our biologic drug candidates. These items must be manufactured and supplied to us in sufficient quantities and in compliance with cGMP. To meet these requirements, we have entered into supply agreements with firms that manufacture these components to cGMP standards. Our requirements for these items are expected to increase if and when we transition to the manufacture of commercial quantities of our biologic drug candidates.

In addition, as we proceed with our clinical trial efforts, we must be able to demonstrate to the FDA that we can manufacture our biologic drug candidates with consistent characteristics. Accordingly, we are materially dependent on these suppliers for supply of cGMP-grade components of consistent quality. Our ability to complete ongoing clinical trials may be negatively affected in the event that we are forced to seek and validate a replacement source for any of these critical components. If we are not able to obtain adequate supplies of these items of consistent quality from our third-party suppliers, it will also be more difficult to manufacture commercial quantities of our biologic drug candidates that are approved for commercial sale.

In addition, if commercial sale of our biologic drug candidates is approved, we intend to rely on third parties for their distribution. Proper shipping and distribution requires compliance with specific storage and shipment procedures. Failure to comply with these procedures or the occurrence of inadvertent damage to the shipping container will necessitate return and replacement, potentially resulting in additional cost and causing us to fail to meet supply requirements.

***Use of third-party manufacturers may increase the risk that we will not have adequate quantities of our biologic drug candidates.***

We use third-party manufacturers to supply our biologic drug candidates for clinical trials. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured such components ourselves, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party; and
- the possible termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

Our contract manufacturers are subject to all of the risks and uncertainties that we have when we manufacture on our own. Similar to us, they are subject to ongoing, periodic, unannounced inspection by the FDA and corresponding state and foreign agencies or their designees to ensure strict compliance with cGMP regulations and other governmental regulations and corresponding foreign standards. However, we do not control compliance by our contract manufacturers with these regulations and standards. Our present or future manufacturers might not be able to comply with these regulatory requirements. If our third-party manufacturers fail to comply with applicable regulations, the FDA or other regulatory authorities could impose sanctions on us, including fines, injunctions, civil penalties, denial of marketing approval of our biologic drug candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of biologic drug candidates or our other products, operating restrictions and criminal prosecutions. Any of these actions could significantly and adversely affect supplies of our biologic drug candidates or other products and could have a material adverse effect on our business, financial condition and results of operations.

We have contracted with Lonza to manufacture quantities of our stem cell drug candidates for our clinical trials. If Lonza is unable to increase production sufficiently, we may also not be able to meet anticipated market demand in the future.

***If our processing and storage facility or our clinical manufacturing facilities are damaged or destroyed, our business and prospects would be negatively affected.***

If our processing and storage facility or the equipment in the facility were to be significantly damaged or destroyed, we could suffer a loss of some or all of the stored units of our biologic drug candidates and it would force us to halt our clinical trial processes.

We lease approximately 61,203 square feet of space in Columbia, Maryland that houses essentially all of our corporate operations. Currently, we maintain insurance coverage totaling \$19.4 million against damage to our property and equipment, an additional \$4.0 million to cover business interruption and extra expenses, and \$5.6 million to cover R&D restoration expenses. If we have underestimated our insurance needs, we will not have sufficient insurance to cover losses above and beyond the limits on our policies.

***Ethical and other concerns surrounding the use of stem cell therapy or human tissue may negatively affect public perception of us or our products or biologic drug candidates, or may negatively affect regulatory approval of our products or biologic drug candidates, thereby reducing demand for our products and adversely affecting the market price for our common stock.***

The commercial success of our biologic drug candidates will depend in part on general public acceptance of the use of stem cell therapy for the prevention or treatment of human diseases. The use of embryonic stem cells and fetal tissue for research and stem cell therapy has been the subject of substantial national and international debate regarding related ethical, legal and social issues. In the U.S., for example, until March 2009, federal government funding of embryonic stem cell research was limited to specifically identified cell lines and was not otherwise available. We do not use embryonic stem cells or fetal tissue, but the public may not be able to, or may fail to, differentiate our use of adult stem cells from the use by others of embryonic stem cells or fetal tissue. This could result in a negative perception of our company or our products or biologic drug candidates.

We may obtain stem cells from volunteer adult bone marrow donors from non-profit organizations that collect and process tissue donations. Bone marrow donors receive payment, but ethical concerns have been raised by some about the use of donated human tissue in a for-profit setting, as we are doing.

Future adverse events in the field of stem cell therapy or changes in public policy could also result in greater governmental regulation of our biologic drug candidates and potential regulatory delays relating to their testing or approval.

***We may eventually compete with other companies for product sales. Many of these competitors have greater resources or capabilities than we have, or may succeed in developing better products or in developing products more quickly than we do, and we may not compete successfully with them.***

In the marketplace, we compete or may eventually compete with other companies and organizations that are marketing or developing therapies for our targeted disease indications, based on traditional pharmaceutical, medical device or other, non-cellular therapy and technologies. These include: Novartis, the manufacturer of Neoral® for the prevention of organ rejection in transplant patients, which would compete with Prochymal for the treatment of GvHD; and Johnson & Johnson, the manufacturer of Remicade®, and Abbott, the manufacturer of Humira®, which would compete with Prochymal for the treatment of Crohn's disease. In addition to those listed above, we have other potential competitors developing a variety of therapeutics.

We also face competition in the cell therapy field from academic institutions and governmental agencies. Many of our current and potential competitors have greater financial and human resources than we have, including more experience in research and development and more established sales, marketing and distribution capabilities.

We anticipate that competition in our industry will increase. In addition, the health care industry is characterized by rapid technological change, resulting in new product introductions and other technological advancements. Our competitors may develop and market products that render products now or in the future under development by us, or any products manufactured or marketed by us, non-competitive or otherwise obsolete.

***The use of our stem cell therapies in human subjects may expose us to product liability claims, and we may not be able to obtain adequate insurance.***

We face an inherent risk of product liability claims. None of our products have been widely used over an extended period of time, and therefore our safety data are limited. We derive the raw materials for our products from human donor sources, the manufacturing process is complex, and the handling requirements are specific, all of which increase the likelihood of quality failures and subsequent product liability claims. We will need to increase our insurance coverage if and when we begin commercializing our biologic drug candidates. We may not be able to obtain or maintain product liability insurance on acceptable terms with adequate coverage or at all. If we are unable to obtain insurance, or if claims against us substantially exceed our coverage, then our business could be adversely impacted. Whether or not we are ultimately successful in any product liability litigation, such litigation could consume substantial amounts of our financial and managerial resources and could result in, among other things:

- significant awards against us;
- substantial litigation costs;
-

recall of the product;

- injury to our reputation;
- withdrawal of clinical trial participants; or,
- adverse regulatory action.

Any of these results could have a material adverse effect on our business, financial condition and results of operations.

***By completing the sale of our Osteocel business, we sold the assets that produce our only currently commercialized product.***

Pursuant to the asset purchase agreement with NuVasive, Inc., we sold our entire product line relating to the processing, manufacturing, marketing and selling of Osteocel and Osteocel XO. Although we generate revenues from a variety of other sources, including collaborative agreements and a government contract, the Osteocel business that we sold to NuVasive included our only commercially available product.

***Our long term business prospects will depend primarily on the success of our biologic drug candidates business.***

Although we expect to continue to manufacture tissue based surgical biologic products in the future, our biologic drug candidate business will be the primary focus of our business. Our long term business prospects will, therefore, be dependent almost solely on the success of our biologic drug candidate business. This business is based on novel technologies and involves significant risks and challenges in regards to product development and optimization, manufacturing, government regulation, intellectual property, third-party reimbursement and market acceptance, among the other risks disclosed by us.

#### **Risks Related to Intellectual Property**

***If our patent position does not adequately protect our products, others could compete against us more directly, which would harm our business and have a material adverse effect on our financial condition and results of operations.***

Our success depends, in large part, on our ability to obtain and maintain intellectual property protection for our biologic drug candidates. The patent position of biotechnology companies is generally highly uncertain, involves complex legal and factual questions and has been the subject of much litigation. Neither the U.S. Patent and Trademark Office nor the courts has a consistent policy regarding the breadth of claims allowed or the degree of protection afforded under many biotechnology patents.

The claims of our existing U.S. patents and those that may issue in the future, or those licensed to us, may not confer on us significant commercial protection against competing products. Third parties may challenge, narrow, invalidate, design around, or circumvent any patents owned, assigned or licensed to us and those that we may obtain in the future. Our patents on MSC technology, in particular, cover mesenchymal stem cells and the therapeutic uses thereof. Patents with such claims tend to be more vulnerable to challenge by other parties than patents with extremely narrow claims. Also, our pending patent applications may not issue, may issue with substantially narrower claims than currently pending claims, or we may not receive any additional patents. Further, the laws of foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States. Our patents might not contain claims that are sufficiently broad to prevent others from utilizing our technologies. Consequently, our competitors may independently develop competing products that do not infringe our patents or other intellectual property.

Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any of our products can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantages of the patent. For instance, one of our patents related to our MSC technology will expire in 2013 if no extensions are applied for and received. To the extent our biologic drug candidates based on that technology are not commercialized ahead of this date, to the extent we have no other patent protection on such products, or to the extent that regulatory or patent extensions are not granted, those products would not have the robust protection we currently expect to enjoy. The background technologies used in the development of our biologic drug candidates are known in the scientific community, and it is possible to duplicate the methods we use to create our biologic drug candidates.

***If certain license agreements are terminated, our market exclusivity could be adversely affected.***

We are a party to various agreements that give us rights to use specified technologies applicable to research, development and commercialization of our product candidates. If these agreements are voided or terminated, our product development, research and commercialization efforts may be altered or delayed. Certain aspects of our technology rely on patented inventions developed using university or other third party resources. The universities or third parties may have certain rights, as defined by law or applicable agreements, in such patents, and may choose to exercise such rights. If we fail to comply with any terms or provisions of these agreements, our rights could be

terminated. Currently, we are in compliance with the terms of all agreements, and we do not have any reason to believe that our rights might be terminated.

***If we are unable to protect the confidentiality of our proprietary information, trade secrets and know-how, our competitive position would be impaired and our business, financial condition and results of operations could be adversely affected.***

Some aspects of our technology, especially regarding manufacturing processes, are unpatented and maintained by us as trade secrets. In an effort to protect these trade secrets, we require our employees, consultants, collaborators and advisors to execute confidential disclosure agreements before the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements, however, may not provide us with adequate protection against improper use or disclosure of confidential information, and these agreements may be breached. A breach of confidentiality could affect our competitive position. In addition, in some situations, these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants, collaborators or advisors have previous employment or consulting relationships. Also, others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets.

Adequate remedies may not exist in the event of unauthorized use or disclosure of our confidential information. The disclosure of our trade secrets would impair our competitive position and could have a material adverse effect on our business, financial condition and results of operations.

***If we infringe or are alleged to infringe intellectual property rights of third parties, it will adversely affect our business, financial condition and results of operations.***

Our research, development and commercialization activities, including any biologic drug candidates or products resulting from these activities, may infringe or be alleged to infringe patents owned by third parties and to which we do not hold licenses or other rights. There may be applications that have been filed but not published that, when issued, could be asserted against us. These third parties could bring claims against us that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us, we could be enjoined from certain activities including a stop or delay in research, development, manufacturing or sales activities related to the product or biologic drug candidate that is the subject of the suit.

As a result of patent infringement claims, or in order to avoid potential claims, we may choose or be required to seek a license from the third party. These licenses may not be available on acceptable terms, or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. All of the issues described above could also impact our collaborators, which would also impact the success of the collaboration and therefore us.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. In addition to infringement claims against us, we may become a party to other patent litigation and other proceedings, including interference and reexamination proceedings declared by the United States Patent and Trademark Office and opposition proceedings before the patent offices for other countries (e.g. the European Patent Office) or similar adversarial proceedings, regarding intellectual property rights with respect to our products and technology. For example, a patent that was granted to us in Europe for human mesenchymal stem cells in the cardiac context was opposed in the European Patent Office by two different companies. In 2008 we prevailed in an opposition before the European Patent Office against one patent related to the cardiac indications of Prochymal. Though we were successful in that particular case, the outcome of any future patent controversies is uncertain. The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Patent litigation and other proceedings may also absorb significant management time. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace and, as a result, on our business, financial condition and results of operations. To the extent that our employees, consultants or contractors use intellectual property owned by others, disputes may arise as to the rights related to or resulting from the use of such intellectual property.

***We may become involved in lawsuits to protect or enforce our patents or the patents of our collaborators or licensors, which could be expensive and time consuming.***

Litigation may be necessary to enforce patents issued or licensed to us, to protect trade secrets or know-how, or to determine the scope and validity of the proprietary rights. Litigation, opposition or interference proceedings could result in substantial additional costs and diversion of management focus. If we are ultimately unable to protect our technology, trade secrets or know-how, we may be unable to operate profitably.

Competitors may infringe our patents or the patents of our collaborators or licensors. As a result, we may be required to file infringement claims to protect our proprietary rights. This can be expensive, particularly for a company of our size, and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is invalid or is unenforceable, or may refuse to enjoin the other party from

using the technology at issue. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly. Interference proceedings brought by the U.S. Patent and Trademark Office may be necessary to determine the priority of inventions with respect to our patent applications or those of our collaborators or licensors. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distraction to our management. We may not be able, alone or with our collaborators and licensors, to prevent misappropriation of our proprietary rights, particularly in countries where the laws may not protect such rights as fully as in the United States.

Furthermore, though we would see protective orders where appropriate, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If investors perceive these results to be negative, the market price for our common stock could be significantly harmed.

The biotechnology industry, including our fields of therapeutic interest, is highly competitive and subject to significant and rapid technological change. Accordingly, our success will depend, in part, on our ability to respond quickly to such change through the development and introduction of new products. Our ability to compete successfully against currently existing and future alternatives to our product candidates and systems and competitors who compete directly with us in the biopharmaceutical industry will depend, in part, on our ability to: attract and retain skilled scientific and research personnel; develop technologically superior products; develop competitively priced products; obtain patent or other required regulatory approvals for our products; and be early entrants to the market; manufacture, market and sell our products, independently or through collaborations. If a third party were to commercialize a competitive product, there is no assurance that we would have a basis for initiating patent infringement proceedings or that, if initiated, we would prevail in such proceedings.

### **Risks Related to Regulatory Approval and Other Government Regulations**

***If we are not able to successfully develop and commercialize our biologic drug candidates and obtain the necessary regulatory approvals, we may not generate sufficient revenues to continue our business operations.***

In order to generate sales revenue from our biologic drug candidates, we must conduct extensive preclinical studies and clinical trials to demonstrate that our biologic drug candidates are safe and effective and obtain required regulatory approvals. Our early stage biologic drug candidates may fail to perform as we expect. Moreover, our biologic drug candidates in later stages of development may fail to show the desired safety and efficacy traits despite having progressed successfully through preclinical or initial clinical testing. We will need to devote significant additional research and development, financial resources and personnel to develop commercially viable products and obtain the necessary regulatory approvals.

If our biologic drug candidates do not prove to be safe and efficacious in clinical trials, we will not obtain the required regulatory approvals. If we fail to obtain such approvals, we may not generate sufficient revenues to continue our business operations.

Even if we obtain regulatory approval of a product, that approval may be subject to limitations on the indicated uses for which it may be marketed. Even after granting regulatory approval, the FDA and regulatory agencies in other countries continue to review and inspect marketed products, manufacturers and manufacturing facilities, which may create additional regulatory burdens. Later discovery of previously unknown problems with a product, manufacturer or facility, may result in restrictions on the product or manufacturer, including a withdrawal of the product from the market. Further, regulatory agencies may establish additional regulations that could prevent or delay regulatory approval of our products.

***We cannot market and sell our biologic drug candidates in the United States or in other countries if we fail to obtain the necessary regulatory approvals or licensure.***

We cannot sell our biologic drug candidates until regulatory agencies grant marketing approval, or licensure. The process of obtaining regulatory approval is lengthy, expensive and uncertain. It is likely to take several years to obtain the required regulatory approvals for our lead stem cell biologic drug candidate, Prochymal, or we may never gain the necessary approvals. Any difficulties that we encounter in obtaining regulatory approval may have a substantial adverse impact on our operations and cause our stock price to decline significantly. Moreover, because our biologic drug candidates are all based on a single platform technology, MSCs, any adverse events in our clinical trials for one of our biologic drug candidates could negatively impact the clinical trials and approval process for our other biologic drug candidates.

To obtain marketing approvals in the United States for MSC products, for instance, we must, among other requirements, complete carefully controlled and well-designed clinical trials sufficient to demonstrate to the FDA that the biologic drug candidate is safe and effective for each disease for which we seek approval. Several factors could prevent completion or cause significant delay of these trials, including an inability to enroll the required number of patients or failure to demonstrate adequately that MSCs are safe, effective and potent for use in humans. Negative or inconclusive results from or adverse medical events during a clinical trial could cause the clinical trial to be repeated or a program to be terminated, even if other studies or trials relating to the program are successful. The FDA can place a clinical trial on hold if, among other reasons, it finds that patients enrolled in the trial are or would be exposed to an unreasonable and significant risk of illness or injury. If safety concerns develop, we or the FDA could stop our trials before completion. Some participants in our MSC clinical trial have experienced serious adverse events, seven of which have been determined to be possibly related to MSCs and one of which has been

determined to be probably related. A serious adverse event is an event that results in significant medical consequences, such as hospitalization, disability or death, and must be reported to the FDA. We cannot assure you that safety concerns regarding MSCs will not develop.

The pathway to regulatory approval for MSCs may be more complex and lengthy than for approval of a new conventional drug. Similarly, to obtain approval to market our stem cell products outside of the United States, we, together with our collaborative partners, will need to submit clinical data concerning our products and receive regulatory approval from governmental agencies, which in certain countries includes approval of the price we intend to charge for our product. We may encounter delays or rejections if changes occur in regulatory agency policies during the period in which we develop a biologic drug candidate or during the period required for review of any application for regulatory agency approval. If we are not able to obtain regulatory approvals for use of our biologic drug candidates under development, we will not be able to commercialize such products, and therefore may not be able to generate sufficient revenues to support our business.

***If we are not able to conduct our clinical trials properly and on schedule, marketing approval by FDA and other regulatory authorities may be delayed or denied.***

The completion of our clinical trials may be delayed or terminated for many reasons, including, but not limited to, if:

- the FDA does not grant permission to proceed and places the trial on clinical hold;
- subjects do not enroll in our trials at the rate we expect;
- subjects experience an unacceptable rate or severity of adverse side effects;
- third-party clinical investigators do not perform our clinical trials on our anticipated schedule or consistent with the clinical trial protocol, Good Clinical Practice and regulatory requirements, or other third parties do not perform data collection and analysis in a timely or accurate manner;
- inspections of clinical trial sites by the FDA or Institutional Review Boards (IRBs) of research institutions participating in our clinical trials find regulatory violations that require us to undertake corrective action, suspend or terminate one or more sites, or prohibit us from using some or all of the data in support of our marketing applications; or
- one or more IRBs suspends or terminates the trial at an investigational site, precludes enrollment of additional subjects, or withdraws its approval of the trial.

Our development costs will increase if we have material delays in our clinical trials, or if we are required to modify, suspend, terminate or repeat a clinical trial. If we are unable to conduct our clinical trials properly and on schedule, marketing approval may be delayed or denied by the FDA.

***We may not be able to secure and maintain research institutions to conduct our clinical trials.***

We rely on research institutions to conduct our clinical trials. Specifically, the limited number of bone marrow transplant centers further heightens our dependence on such research institutions for our Phase III trials. Our reliance upon research institutions, including hospitals and clinics, provides us with less control over the timing and cost of clinical trials and the ability to recruit subjects. If we are unable to reach agreement with suitable research institutions on acceptable terms, or if any resulting agreement is terminated, we may be unable to quickly replace the research institution with another qualified institution on acceptable terms. We may not be able to secure and maintain suitable research institutions to conduct our clinical trials.

***Final marketing approval of our biologic drug candidates by the FDA or other regulatory authorities for commercial use may be delayed, limited, or denied, any of which would adversely affect our ability to generate operating revenues.***

Any of the following factors may cause final marketing approval for our biologic drug candidates to be delayed, limited or denied:

- our biologic drug candidates require significant clinical testing to demonstrate safety and effectiveness before applications for marketing approval can be filed with the FDA;
-

data obtained from preclinical and nonclinical animal testing and clinical trials can be interpreted in different ways, and the FDA may not agree with our interpretations;

- it may take many years to complete the testing of our biologic drug candidates, and failure can occur at any stage of the process;
- negative or inconclusive results or adverse side effects during a clinical trial could cause us to delay or terminate development efforts for a biologic drug candidate; or,
- commercialization may be delayed if the FDA requires us to expand the size and scope of the clinical trials.

If marketing approval for our biologic drug candidates is delayed, limited or denied, our ability to market products, and our ability to generate product sales, would be adversely affected.

***Producing and marketing an approved drug or other medical product is subject to significant and costly post-approval regulation.***

Even if approved for commercial sale, it is likely that Prochymal will receive conditional approval by the FDA, and we will be required to conduct Phase IV clinical trials to obtain full approval. Even if we obtain full approval of a product, that approval is subject to limitations on the indicated uses for which we can market it. After granting marketing approval, the FDA and regulatory agencies in other countries continue to review and inspect marketed products, manufacturers and manufacturing facilities, creating additional regulatory burdens. Later discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on the product or manufacturer, including a withdrawal of the product from the market. Further, regulatory agencies may establish additional regulations that could prevent or delay marketing approval of our products.

***Our business involves the use of hazardous materials that could expose us to environmental and other liability.***

We have facilities in Maryland that are subject to various local, state and federal laws and regulations relating to safe working conditions, laboratory and manufacturing practices, the experimental use of animals and the use and disposal of hazardous or potentially hazardous substances, including chemicals, micro-organisms and various radioactive compounds used in connection with our research and development activities. In the United States, these laws include the Occupational Safety and Health Act, the Toxic Test Substances Control Act and the Resource Conservation and Recovery Act. We cannot assure you that accidental contamination or injury to our employees and third parties from hazardous materials will not occur. We do not have insurance to cover claims arising from our use and disposal of these hazardous substances other than limited clean-up expense coverage for environmental contamination due to an otherwise insured peril, such as fire.

***We may not be able to obtain or maintain Orphan Drug designation for our biologic drug candidates.***

Some jurisdictions, including the European Union and the United States, may designate drugs for relatively small patient populations as orphan drugs. Although the FDA and its European counterpart, the European Medicines Agency ("EMA") have designated Prochymal for the treatment of steroid refractory GvHD as an orphan drug, none of our other biologic drug candidates have received such designation. Orphan Drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process, but does make the product eligible for orphan drug exclusivity, reduced filing fees and specific tax credits. Generally, if a company receives the first marketing approval for a product with an Orphan Drug designation in the clinical indication for which it has such designation, the product is entitled to orphan drug exclusivity. Orphan drug exclusivity means that the health authorities will not approve another application to market the same drug for the same indication, except in limited circumstances, for a period of up to seven years in the United States and ten years in Europe. This exclusivity, however, could block the approval of our biologic drug candidates if a competitor obtains marketing approval before us. Even if we obtain orphan drug exclusivity for any of our biologic drug candidates, we may not be able to maintain it. For example, if a competitive product is shown to be clinically superior to our product, any orphan drug exclusivity we have will not block the approval of such competitive product.

***The Fast Track designation for development of any of our products may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood the biologic drug candidate will receive marketing approval.***

If a drug is intended for the treatment of a serious or life-threatening condition and the drug demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply for FDA Fast Track designation for a particular indication. Marketing applications filed by sponsors of products in Fast Track development may qualify for priority review under the policies and procedures offered by the FDA, but the Fast Track designation does not assure any such qualification. Although we have obtained a Fast Track designation from the FDA for Prochymal for the treatment of GvHD and treatment refractory Crohn's disease, receipt of Fast Track designation may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures. In addition, the FDA may withdraw our Fast Track designation at any time. If we lose our Fast Track designation, the approval process may be delayed. In addition, our Fast Track designation does not guarantee that we will qualify for or be able to take advantage of the expedited review procedures and does not increase the likelihood that Prochymal will receive regulatory approval for the treatments of steroid refractory GvHD or Crohn's disease.

## **Risks Related to Government Contracts**

***Federal government spending priority or our relationships with the federal government may change in a manner that harms our business or prospects.***

Our ability to successfully pursue and perform under development and purchase agreements with United States and Allied governmental agencies for countermeasures to nuclear terrorism and other radiological emergencies, including the contract awarded to us by the DoD for the development and stockpiling of Prochymal for the treatment of ARS, depends upon continued federal government expenditures on defense, emergency preparedness and other programs. These expenditures will likely fluctuate over time. While spending authorizations for defense and emergency preparedness related programs by the government have increased in recent years, and in particular after the 2001 terrorist attacks, future levels of expenditures and authorizations for these programs may decrease, remain constant or shift to program areas inapplicable to us. Our business, prospects, financial condition and/or operating results could be materially harmed by budgetary constraints affecting federal government spending generally, or specific departments or agencies in particular, and by changes in fiscal policies or available funding, or by changes in federal government programs or requirements or delays in government appropriations process. In addition, our business, prospects, financial condition and/or operating results could be materially harmed if we are suspended or disbarred from contracting with the federal government or a significant governmental agency, or our reputation or relationship with governmental entities is impaired, or the government otherwise declines to do business with us, or significantly decreases the amount of business it is willing to do with us.

***Federal government contracts contain provisions that may be unfavorable to us.***

Federal government contracts contain provisions, and are subject to laws and regulations, that give the government rights and remedies not typically found in commercial contracts. These provisions may allow the government to terminate existing contracts for convenience, as well as for default, to reduce or modify contracts or subcontracts, to cancel multi-year contracts or related purchase orders if funds for contract performance for any subsequent year become unavailable, to decline to exercise an option to renew a multi-year contract or to decline to purchase product pursuant to an option afforded under a contract. If the government terminates a contract for convenience, we may recover only our incurred or committed costs, settlement expenses and profit on the work completed prior to the termination. If the government terminates a contract for default, we may not recover even those amounts, and instead may be liable for excess costs incurred by the government in procuring undelivered items and services from another source.

***Unfavorable federal government audit results could subject us to penalties or sanctions and could impair our ability to win new contracts.***

The Defense Contract Audit Agency ("DCAA") and other government agencies routinely audit and investigate government contracts and systems. These agencies review a contractor's performance on its contract, cost structure and compliance with applicable laws, regulations and standards. The DCAA also reviews the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's accounting, purchasing, property, estimating, compensation and managing information systems. Allegations of impropriety or deficient controls could harm our reputation and/or adversely influence the award of new contracts. Any costs found to be improperly allocated to a specific contract will not be reimbursed, while such costs already reimbursed must be refunded. Therefore, a DCAA audit could result in a substantial adjustment to our revenue earned from federal government contracts.

***The government may terminate our federal government contracts at any time.***

Federal government contracts may span one or more base years and one or more option years, and may provide the government with one or more options in respect of continued performance by us thereunder. For example, our contract with the DoD for the development and stockpiling of Prochymal for the treatment of ARS provides the DoD with successive options for the purchase of Prochymal, assuming receipt of FDA approval for its use in the treatment of ARS. Federal government agencies have no obligation to exercise these options unless determined to be in the best interest of the government. Additionally, federal government contracts typically contain provisions permitting the government to terminate the contract for its convenience. A decision not to exercise an option or a decision to terminate a contract could have a material adverse effect on our business and prospects.

***If we fail to comply with complex procurement laws and regulations, we could incur various penalties or sanctions.***

To the extent which we enter into contracts or other arrangements with the United States or other Allied governments, we must comply with the laws and regulations relating to the formation, administration and performance of those contracts. These laws and regulations affect how we conduct business with our government contracts. In complying with these laws and regulations, we may incur additional costs and delays, and non-compliance may also allow for the assignment of additional fines and penalties, including contractual damages. Among these laws and regulations are the Federal Acquisition Regulations, which comprehensively regulate the formation, administration and performance of United States federal government contracts, the Truth in Negotiations Act, which requires certification and disclosure of all costs and pricing data in connection with contract negotiations, and laws, regulations and executive orders restricting the use and dissemination of information classified for national security purposes, and restricting the export of certain products and technical data. We are subject to periodic review of

our performance under and compliance with the terms of any federal government contracts to which we are a party. As a result of these reviews, we may learn that we are not in compliance with all of the terms of any such contracts and we could be subject to civil or criminal penalties or administrative sanctions for failure of compliance.

### **Risks Related to Our Common Stock**

***The trading price of the shares of our common stock is highly volatile, and purchasers of our common stock could incur substantial losses.***

Our stock price is volatile. The stock market in general and the market for biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the price they paid for it. The market price for our common stock may be influenced by many factors, including:

- results of clinical trials of our biologic drug candidates or those of our competitors;
- regulatory developments in the United States and foreign countries;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- announcements by us of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- market conditions in the pharmaceutical and biotechnology sectors and issuance of securities analysts' reports or recommendations;
- sales of substantial amounts of our stock by existing stockholders;
- sales of our stock by insiders and 5% stockholders;
- general economic, industry and market conditions;
- additions or departures of key personnel;
- intellectual property, product liability or other litigation against us;
- expiration or termination of our relationships with our collaborators; and
- the other factors described in this "Risk Factors" section.

In addition, in the past, stockholders have initiated class action lawsuits against biotechnology and pharmaceutical companies following periods of volatility in the market prices of these companies' stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources, which could have a material adverse effect on our business, financial condition and results of operations.

***Concentration of ownership of our common stock among our existing executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.***

Our executive officers, directors and beneficial owners of 5% or more of our common stock and their affiliates, in aggregate, beneficially own approximately 55% of our outstanding common stock as of December 31, 2009. These persons, acting together, will be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors and any merger or other significant corporate transactions. The interests of this group of stockholders may not coincide with our interests or the interests of other stockholders.

Peter Friedli, our Chairman of the Board of Directors, and certain entities with which he is affiliated, beneficially own approximately 44% of our outstanding common stock as of December 31, 2009. Accordingly, Mr. Friedli currently has, and will continue to have, a significant influence over the outcome of all corporate actions requiring stockholder approval.

***Certain provisions of Delaware law and of our charter and bylaws contain provisions that could delay and discourage takeover attempts and any attempts to replace our current management by stockholders.***

Certain provisions of our certificate of incorporation and bylaws, and applicable provisions of Delaware corporate law, may make it more difficult for or prevent a third party from acquiring control of us or changing our Board of Directors and management. These provisions include:

- the ability of our Board of Directors to issue preferred stock with voting or other rights or preferences;
- the inability of stockholders to act by written consent;
- a classified Board of Directors with staggered three-year terms;
- requirements that special meetings of our stockholders may only be called by the chairman of our Board of Directors, upon request of stockholders holding at least 20% of our capital stock issued and outstanding, or upon a resolution adopted by, or an affirmative vote of, a majority of our Board of Directors; and
- requirements that our stockholders comply with advance notice procedures in order to nominate candidates for election to our Board of Directors or to place stockholders' proposals on the agenda for consideration at meetings of stockholders.

We will also be afforded the protections of Section 203 of the Delaware General Corporation Law, which will prevent us from engaging in a business combination with a person who acquires at least 15% of our common stock for a period of three years from the date such person acquired such common stock, unless advance board or stockholder approval was obtained.

Any delay or prevention of a change of control transaction or changes in our Board of Directors or management could deter potential acquirers or prevent the completion of a transaction in which our stockholders could receive a substantial premium over the then current market price for their shares.