ORTHOLOGIC CORP
Form 10-K
March 05, 2008

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

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

For the fiscal year ended December 31, 2007

TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number: 0-21214

ORTHOLOGIC CORP.
(Exact name of registrant as specified in its charter)

Delaware	86-0585310
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

1275 West Washington Street, Tempe, Arizona 85281
(Address of principal executive offices)
Registrant's telephone number: (602) 286-5520

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

Title of each class	Name of each exchange on which registered
Common Stock, par value $.0005 per share	NASDAQ Global Market
Rights to purchase 1/100 of a share of Series A Preferred Stock	NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the

Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such report(s)), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

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

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

Large accelerated filer ¨ Accelerated filer x Non-accelerated filer ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based upon the closing sale price of the registrant's common stock as reported on the NASDAQ Global Market on June 30, 2007 was approximately $59,000,000. Shares of common stock held by each officer and director and by each person who owns 10% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily conclusive.

Documents incorporated by reference: Portions of the registrant's proxy statement related to its 2007 annual meeting of stockholders to be held on May 9, 2008 are incorporated by reference into Part III of this Form 10-K.

The number of outstanding shares of the registrant's common stock on February 29, 2008 was 41,758,065.

ORTHOLOGIC CORP.
FORM 10-K ANNUAL REPORT
YEAR ENDED DECEMBER 31, 2007

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PART I

Item 1. Business

Overview of the Business

Prior to November 26, 2003, we developed, manufactured and marketed proprietary, technologically advanced orthopedic products designed to promote the healing of musculoskeletal bone and tissue, with particular emphasis on fracture healing and spine repair. Our product lines included bone growth stimulation and fracture fixation devices including the OL1000 product line, SpinaLogic® and OrthoFrame/Mayo, which we sometimes refer to as our "Bone Device Business."

On November 26, 2003, we sold our Bone Device Business. Our principal business remains focused on tissue repair, although through biopharmaceutical approaches rather than through the use of medical devices.

On August 5, 2004, we purchased substantially all of the assets and intellectual property of Chrysalis Biotechnology, Inc. ("CBI"), including its exclusive worldwide license for Chrysalin for all medical indications. We became a development stage entity commensurate with the acquisition. Subsequently, all of our collective efforts were focused on research and development of our Chrysalin Product Platform, with the goal of commercializing our products. We currently own exclusive worldwide rights to Chrysalin.

On February 27, 2006, we purchased certain assets and assumed certain liabilities of AzERx, Inc. Under the terms of the transaction, we acquired an exclusive license for the core intellectual property relating to AZX100, a 24-amino acid synthetic peptide. We have an exclusive worldwide license to AZX100.

Chrysalin and OrthoLogic are registered United States domestic trademarks of OrthoLogic Corp.

Description of the Business

OrthoLogic is currently a development stage biotechnology company focused on the development and commercialization of the novel synthetic peptides Chrysalin® (TP508) and AZX100. However, we continue to evaluate other biopharmaceutical compounds that can complement our research activity internally and broaden our potential pipeline for successful products.

Chrysalin Product Platform

Chrysalin (TP508), a novel synthetic 23-amino acid peptide, is believed to produce angiogenic and other tissue repair effects by activating or upregulating nitric oxide synthase (NOS) and the production of nitric oxide in endothelial cells, and if so, it may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction. The Chrysalin molecule serves as the basis for a group of potential therapeutic products we refer to collectively as the "Chrysalin Product Platform." We have conducted clinical trials for two potential Chrysalin products, acceleration of fracture repair, and diabetic foot ulcer. We previously conducted a pilot study for spine fusion. We have conducted pre-clinical testing for cartilage defect repair, cardiovascular repair, dental bone repair, and tendon repair. We are initiating studies of other potential vascular indications.

The development of each of our potential product candidates in the Chrysalin Product Platform is based on our collective knowledge and understanding of how Chrysalin contributes to the repair of tissue. While there are important differences in each of the product candidates in terms of purpose (fracture repair, diabetic foot ulcer healing, etc.) each product candidate is focused on accelerating and enhancing tissue repair.

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We are focusing our efforts on vascular product candidates and are not currently planning additional pre-clinical or clinical studies in fracture repair, wound healing, spine fusion, cartilage defect repair, dental bone repair or tendon repair.

Acceleration of Fracture Repair

Every broken bone is called a fracture and approximately 30 million fractures are treated every year throughout the developed world, as reported by medical reimbursement records in countries with national healthcare systems. The treatment of a fracture depends on the severity of the break. Simple fractures often heal themselves, with more complex closed fractures potentially amenable to treatment by manipulation (also called "reduction") without requiring surgery. Fractures that break the skin (or "open fractures") or where the fragments cannot be lined up correctly usually require surgery. Sometimes plates, screws or pins are used for mechanical stabilization, occasionally with the use of bone grafts, all of which are invasive, expensive and time consuming procedures.

In pre-clinical animal studies, a single injection of Chrysalin into the fracture gap accelerated fracture healing by up to 50% as measured by mechanical testing. In late 1999, we initiated a combined Phase 1/2 human clinical trial to evaluate the safety of Chrysalin and its effect on the rate of healing in adult subjects with unstable distal radius fractures (fractures around and in the wrist joint). We presented the results of this Phase 1/2 human clinical trial for fracture repair at the 57th Annual Meeting of the American Society for Surgery of the Hand in October 2002. The data from x-ray evaluations revealed that a single injection of Chrysalin into the fracture gap resulted in a trend toward accelerated fracture healing compared with the saline placebo control. There were no reportable adverse events attributable to Chrysalin in the study. A summary of these results was published November 2006 in The Journal of Bone and Joint Surgery.

We completed subject enrollment in our pivotal Phase 3 human clinical trial evaluating the efficacy of Chrysalin in subjects with unstable and/or displaced distal radius (wrist) fractures in May 2005. We enrolled a total of 503 study subjects in 27 health centers throughout the United States. The primary efficacy endpoint in the trial was to measure how quickly wrist fractures in subjects injected with Chrysalin heal, as measured by the removal of immobilization. Accelerated removal of immobilization allows patients to initiate hand therapy and regain full function of their wrists and hands sooner. The clinical trial's secondary efficacy endpoints include radiographic analysis of healing, as well as clinical, functional, and subject outcome parameters. On March 15, 2006, we reported results of an analysis of data from its Phase 3 clinical trial of the novel synthetic peptide Chrysalin® (TP508) in unstable, displaced distal radius (wrist) fractures. Treatment with 10µg Chrysalin did not demonstrate a statistically significant benefit compared to placebo in the primary efficacy endpoint of time to removal of immobilization in the overall evaluable subject population. Within the secondary endpoints, radiographic evidence of time to radial cortical bridging, showed a statistically significant benefit for Chrysalin–treated subjects. This benefit mirrored findings from the Phase 1/2 clinical trial that provided part of the foundation for the Phase 3 study. A statistically significant difference between Chrysalin treatment and placebo in the functional secondary endpoints was not observed. From a safety perspective, there were no adverse events related to Chrysalin reported in this Phase 3 trial, nor were there any differences in adverse event rates observed between the Chrysalin and placebo treated subjects.

On February 16, 2007, we announced findings of a post hoc subgroup analysis of data from the Phase 3 clinical trial showing that within the subset of 157 female osteopenic subjects, treatment with 10 µg Chrysalin demonstrated a statistically significant benefit compared to placebo in the primary efficacy endpoint of time to removal of immobilization. Secondary endpoints including clinical assessment of fracture healing (pain or motion at the fracture site), time to radial cortical bridging and time to overall radiographic healing also showed a significant effect of Chrysalin treatment. These data are part of a post hoc subgroup analysis, and therefore provide only supporting - rather than pivotal - evidence of safety and efficacy.

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The Company was assessing Chrysalin in a Phase 2b human clinical trial in distal radius fractures, which was a double-blind, randomized placebo controlled trial that explored a wider dose range of Chrysalin, including 1µg, 3 µg, 10 µg, or 30 µg doses. Our enrollment goal was 500 evaluable subjects in approximately 60 sites. On March 15, 2006, we temporarily interrupted enrollment in its Phase 2b fracture repair dosing human clinical trial to perform an interim analysis of the subjects enrolled up to that date.

On August 29, 2006, the Company reported the results of interim analysis of data from our Phase 2b dose ranging clinical trial of the novel synthetic peptide Chrysalin (TP508) in unstable, displaced distal radius (wrist) fractures and termination of the Phase 2b study. In the dataset of 240 subjects as a group that were evaluable in the Phase 2b interim analysis, treatment with Chrysalin did not demonstrate benefit compared to placebo in the primary efficacy endpoint of time to removal of immobilization. Individual findings of efficacy in secondary endpoints, including radiographic healing, were not seen in this interim analysis and no dose response relationship was observed. The Company stated at the time that the trial was not powered at the interim analysis stage to detect statistically significant differences among dose cohorts regarding the efficacy of Chrysalin. The trial met the pre-specified safety endpoint by demonstrating no significant difference in the incidence of adverse events between the Chrysalin and placebo groups.

Throughout our acceleration of fracture repair efforts, Chrysalin has demonstrated an excellent safety profile and evidence of biological activity. However, interactions with FDA personnel have led us to conclude that the development path (dose ranging and efficacy clinical trials to reach an NDA filing in acceleration of fracture repair) no longer matches our resources or strategic timetable. Accordingly, in 2008, we intend to explore partnering opportunities for orthopedic indications.

Dermal Wound Healing

Our dermal wound healing studies are focused on healing diabetic foot ulcers, a common problem for diabetic patients. The World Health Organization (WHO) estimates that at least 171 million people worldwide have diabetes and that number is expected to double by 2030. Diabetic patients suffer from open wound foot ulcers because diabetes related nerve damage causes the patient to lose sensation. Patients thus may not notice an injury to the foot and neglect the injury. This fact and the diminished blood flow to extremities caused by diabetes cause a diabetic patient’s wounds to heal more slowly or not at all.

Standard therapy for diabetic foot ulcer wounds includes sharp debridement, infection control, moisture/exudate management and non-use of the foot (off loading) to allow for the body’s natural healing processes to occur. These treatments require high patient compliance and effectively heal only approximately 33% of these ulcers. Wounds that do not respond to treatment can sometimes result in amputation of the affected limb.

We believe topical treatment of the wound with Chrysalin will promote new tissue growth necessary for healing of a diabetic foot ulcer. CBI conducted a multicenter Phase 1/2 double blind human trial with 60 subjects, the results of which were presented at the Wound Healing Society in May 2002. We found no drug related adverse events due to Chrysalin in this trial and complete wound closure occurred in 70% of Chrysalin-treated ulcers versus 33% in placebo controls, a statistically significant difference. Results of this trial were published January 2007 in Wound Repair and Regeneration.

In 2008, we intend to continue to explore partnering opportunities for dermal wound healing, and to evaluate additional pre-clinical studies or formulations of Chrysalin to strengthen and support our partnering efforts.

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Spine Fusion

Spine fusion surgery is most commonly performed to treat degenerative disk disease, spinal instability and other disorders of the spine that are believed to be the cause of back and neck pain. The surgery involves the fusing of one or more vertebrae of the spine by placement of bone graft material around the targeted area of the spine during surgery. The body then heals the grafts over several months, which fuses the vertebrae together with newly formed bone so there is no longer movement between the vertebrae.

The bone used for the graft in this procedure is taken from another bone in the patient, usually from the iliac crest (hip bone) and is called "autograft bone." In some procedures the patients and physicians elect to use "allograft" bone which is bone processed from cadavers. Autograft bone is currently the primary type of bone graft used in spinal fusion surgery and is considered the "gold standard." Allograft bone is often used but has not been an effective stand-alone substitute for autograft bone because it has no bioactive component to stimulate bone growth. The benefit of using allograft bone is it does not require a separate surgical procedure from the same patient to harvest the bone for the graft.

Our potential solution to this problem is to combine Chrysalin with commercially available allograft bone for use in spinal fusion surgery as an alternative to autograft. A completed pre-clinical study, which was presented at the North American Spine Society meeting in October 2004 in Chicago, showed that Chrysalin, in several different formulations combined with allograft bone, caused varying degrees of bone formation in spinal fusion models.

In addition, we completed enrollment in a small pilot Phase 1/2 human clinical trial evaluating Chrysalin for spine fusion in the spring of 2004. This pilot study included approximately 50 patients and no adverse events related to Chrysalin have been reported in this study.

Cartilage Defect Repair

Cartilage tissue is the smooth, slippery cushion that exists where two bones meet to make a joint. Because damaged cartilage generally does not heal but slowly breaks down over time, the result can lead to a complete wearing away of the cartilage, leading to osteoarthritis.

The primary purpose of exploring Chrysalin's potential role in cartilage defect repair is to develop a technique to restore, rather than entirely replace, the original cartilage damaged due to acute traumatic events. These techniques, if successful, may also provide a novel approach for partial resurfacing of damaged joint (or "articular") cartilage due to osteoarthritis.

We have completed several pre-clinical studies evaluating Chrysalin in sustained release formulations for cartilage defect repair. The results to date have been presented at two major international conferences on cartilage repair.

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Dental Bone Repair

We've focused on the use of Chrysalin in two dental bone repair situations: dental implants and maxillo-facial reconstruction. For some patients who need dental implants to replace missing teeth, the patient's bones in the jaw are not strong enough to hold the implanted teeth or supporting structure. The standard treatment in these cases is to insert bone graft material into or above the jaw bones and wait for the body to naturally grow bone around the graft material. This process can take a year or longer, during which a patient must use a temporary external plate with the temporary teeth. In a 2004 pre-clinical study done by CBI in conjunction with Louisiana State University, the incorporation of Chrysalin together with a commercially available bone graft material into the space above the rabbit jaw bones resulted in a significant increase in new bone formation. This could translate in a shorter wait for patients to complete their dental implant surgery.

Tendon Repair

Tendons are the soft tissue that connects muscles to bone. Tendons are crucial to the biomechanical functions of the body. Injuries to tendons are very common, and typically these injuries are treated either conservatively with rehabilitation techniques or with surgical techniques. These injuries are often slow to heal or do not heal completely. We have conducted preliminary research focused on whether Chrysalin accelerates tendon tissue repair which may result in better restoration of function.

Vascular Endothelial Dysfunction (VED)

Impaired nitric oxide (NO) production reduces the responsiveness of endothelial cells to angiogenic factors and causes loss of endothelial function in ischemic and inflamed blood vessels contributing to a number of chronic diseases. We hypothesize that TP508 may produce angiogenic and other tissue repair effects by activating or upregulating nitric oxide synthetase (NOS) in endothelial cells, and if so, that it may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction.

Clinical indications associated with VED include the broad areas of coronary artery disease (CAD) and peripheral artery disease (PAD). Insufficient blood supply to the myocardium can result in myocardial ischemia, injury or infarction, or all three. Atherosclerosis of the larger coronary arteries is the most common anatomic condition that causes diminished coronary blood flow. PAD is frequently a marker of systemic atherosclerosis, identifying a group of patients at high risk for cardiovascular morbidity and mortality.

In pre-clinical animal studies conducted, Chrysalin injections into the damaged heart appear to trigger a complex sequence of events that culminates in the body's growth of new blood vessels, enhancing blood delivery to the heart muscle.

In December 2006 we announced during an American Society for Cell Biology presentation, results of an experiment demonstrating that TP508 increases the ability of endothelial cells to produce nitric oxide and that TP508 prevents negative effects caused by oxygen deprivation, a condition found in myocardial ischemia and chronic wounds.

These discoveries raise the possibility that TP508 could be useful in treating a number of vascular diseases and additional pre-clinical studies are planned in 2008. OrthoLogic is in the preliminary stages of examining these disease states and the suitability of TP508 as a therapeutic agent to treat vascular disorders.

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Scientific Advisory Board

On August 2, 2007, we announced the formation of a Scientific Advisory Board (SAB) with the appointments of Michael E. Mendelsohn, MD, Tufts-New England Medical Center and Charles A. Dinarello, MD, University of Colorado School of Medicine. The SAB will provide independent scientific advice and counsel to OrthoLogic management and Board of Directors regarding key development decisions for the Company's novel synthetic peptides Chrysalin® (TP508) and AZX100. Dr. Mendelsohn will serve as Chairman of the SAB.

Chrysalin Product Platform Status

- We believe that the results of our efforts to date support that Chrysalin may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction.
    - We health of endothelial tissue in blood vessels and other mechanism-of-action studies.
- We are focusing our efforts on vascular product candidates and are not currently planning additional pre-clinical or clinical studies in fracture repair, wound healing, spine fusion, cartilage defect repair, dental bone repair or tendon repair.
- Although we do not currently plan to re-enter clinical trials with Chrysalin, evaluations are ongoing as to the appropriate pre-clinical and clinical studies which would serve to strengthen our portfolio and partnering possibilities.
- In 2008, we will continue to explore the science behind and potential of Chrysalin.are continuing pre-clinical experiments tying Chrysalin to potential modulation of the

AZX100

On February 27, 2006, we purchased certain assets and assumed certain liabilities of AzERx, Inc. Under the terms of the transaction, we acquired an exclusive license for the core intellectual property relating to AZX100, a 24-amino acid synthetic peptide.

AZX100 relaxes smooth muscle, which modulates blood pressure and the function of blood vessels, airways, sphincters, the gastrointestinal tract and the genitourinary tract. Sustained abnormal contraction of any of these muscles is called spasm. Any disorders known to be associated with excessive constriction or inadequate dilation of smooth muscle represent potential applications for AZX100.

AZX100 may also inhibit the fibrotic phenotype of fibroblasts and smooth muscle cells in a mechanism similar to that which causes vasorelaxation. Through phenotypic modulation of fibroblasts and smooth muscle cells, AZX100 may inhibit the scarring that results from wound healing and disease states in the dermis, blood vessels, lungs, liver and other organs.

AZX100 is currently being evaluated for medically and commercially significant applications, such as prevention of dermal scarring, pulmonary fibrosis, the treatment of asthma, and vascular intimal hyperplasia. We are executing a development plan for this peptide which included the filing of an IND for a dermal indication in 2007 and includes the intention to commence a Phase 1 safety study in dermal scarring in the first quarter of 2008. The first safety study will include approximately 30 healthy subjects and is expected to be completed in mid 2008. Pending favorable results, we will initiate further safety and dose-ranging studies for dermal scarring. In 2008, we also intend to perform further pre-clinical studies supporting multiple indications for AZX100. We currently plan to explore partnering

opportunities for non-dermal indications.

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Our development activities for the Chrysalin Product Platform and AZX100 represent a single operating segment as they share the same product development path and utilize the same Company resources. As a result, we have determined that it is appropriate to reflect our operations as one reportable segment. Through December 31, 2007, we have incurred $101 million in net losses as a development stage company.

Competition

The biopharmaceutical industry is characterized by intense competition and confidentiality. We may not be aware of the other biotechnology, pharmaceutical companies or public institutions that are developing pharmaceuticals that compete with our potential products. We also may not be aware of all the other competing products our known competitors are pursuing. In addition, these biotechnology companies and public institutions compete with us in recruiting for research personnel and subjects, which may affect our ability to complete our research studies.

Chrysalin Product Platform

We believe that current competing technologies in tissue regeneration have focused on three primary areas:

- Single recombinant growth factor proteins. These proteins are naturally produced by the body to repair and regenerate injured or damaged tissue. The proteins are grown in laboratories and then extracted from host cells and processed for distribution to the patient. Examples of these include platelet derived growth factor and bone morphogenetic growth factor proteins. Bone morphogenetic proteins induce bone formation.

- Osteoconductive matrices. Osteoconductive matrices are a variety of substances that function as a replacement for the damaged tissue, serving as a scaffold that allows the cells to fill the gaps in the damaged tissue. Because these matrices do not stimulate growth of new tissue, they rely on the body’s natural healing process to graft the matrices to the damaged tissue area.

- Cell-based therapeutics. Cell-based therapeutics involves the extraction of cells from a patient, growing the cells in a lab and then reintroducing the resultant cells back into the patient. Research in this area is particularly intensive in the search for universal donor materials, which would eliminate the need to customize the therapy to each patient. Scientists have been exploring stem cells as possible sources of universal donor sources.

We believe that Chrysalin may have a competitive advantage over these therapies in safety and cost. Chrysalin’s mode of operation resembles that of growth factors. Instead of impacting a single cell pathway, Chrysalin stimulates a cascade of growth factors to be released by the body in the proper combination, amounts and timing.

Fracture Repair

As the concept of treatment of fracture repair through biotechnology and biopharmaceuticals gains momentum, we anticipate seeing more companies develop new potentially competitive products in all of these areas. For example, Pfizer received IND authorization to begin a Phase 1/2 human clinical trial for a potential product to accelerate fracture healing in 2004. While this potential product is being evaluated in a different fracture site than the distal radius fracture, it has been targeted to try to achieve a similar outcome. However, we are not aware of any other competitor that has a drug candidate and has received authorization in the United States to begin a human clinical trial for this indication.

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Dermal Wound Healing

Standard therapy for diabetic foot ulcers includes sharp debridement, infection control, moisture / exudate management, and non-use of the foot. There is only one drug product on the market today for the healing of diabetic ulcers and we believe it is currently a secondary treatment choice. Regranex, marketed by Johnson & Johnson, is a gel containing platelet derived growth factor. CBI's proof of concept Phase 1/2 clinical trial showed equivalent or better wound healing rates than Regranex. Currently, several other companies are conducting human clinical trials for this indication.

Vascular Endothelial Dysfunction (VED)

Impaired nitric oxide (NO) production reduces the responsiveness of endothelial cells to angiogenic factors and causes loss of endothelial function in ischemic and inflamed blood vessels contributing to a number of chronic diseases. We hypothesize that TP508 may produce angiogenic and other tissue repair effects by activating or upregulating nitric oxide synthetase (NOS) in endothelial cells, and if so, that it may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction. Currently, we have not identified specific VED indications to pursue. While the potential product markets are significant in size, the markets are characterized by intense competition by both large and small companies with a variety of competing technologies.

Clinical indications associated with VED include the broad areas of coronary artery disease (CAD) and peripheral artery disease (PAD). Insufficient blood supply to the myocardium can result in myocardial ischemia, injury or infarction, or all three. Atherosclerosis of the larger coronary arteries is the most common anatomic condition that causes diminished coronary blood flow. PAD is frequently a marker of systemic atherosclerosis, identifying a group of patients at high risk for cardiovascular morbidity and mortality.

Pharmacologic therapies commonly used in treating myocardial ischemia include 1) aspirin and anticoagulants; 2) ß blockers; 3) nitrates; and 4) calcium channel blockers. Also, the use of angiotensin-converting enzyme (ACE) inhibitors recently has been shown to be beneficial in the treatment of myocardial ischemia. Invasive treatments such as percutaneous transluminal coronary angioplasty (PTCA) and coronary artery bypass surgery (CABG) may be indicated as well.

Treatment of PAD may include pharmacologic agents such as HMG-CoA reductase inhibitors (statins), glucose control and aggressive management of hypertension, antiplatelet therapy (aspirin or clopidogrel) or phosphodiesterase inhibitors. Other interventions include prostaglandins, growth factors and revascularization therapy,

OrthoLogic is in the preliminary stages of examining these disease states and the suitability of TP508 as a therapeutic agent to treat vascular disorders.

AZX100

Dermal Scarring

Approved

There is no approved pharmacologic treatment for scarless healing. In the setting of keloid or hypertrophic scarring the scars are often excised and treated with steroids with variable results.

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In Development

Among potential competing products are recombinant transforming growth factor beta 3 (TGF ß3) and antiTGFß1 antibodies. Renovo is conducting Phase 3 clinical trials in Europe and the U.S. with recombinant TGFß3 (Juvista) for various scar prevention indications, including a recently approved IND for keloid revisions. While preliminary efficacy has been shown in healing in healthy individuals, like other therapeutics, TGFß3 addresses upstream signaling and only one fibrotic pathway and may have limited effectiveness in scar inhibition. AZX100 inhibits fibrotic responses induced by multiple mediators, suggesting it may be more effective than TGFß3 at scarless healing. Renovo has also begun clinical trials using a TGFß1 antibody, which like TGFß3, blocks part of the signaling cascade resulting in scar formation. AZX100 may be more effective than TGFß1 antibodies through more comprehensive inhibition of multiple scarring cascades.

While many other companies are investigating therapeutics for wound healing, we believe that these therapeutics may be synergistic and not competitive with AZX100 as they are targeting more rapid healing and not scar inhibition.

Asthma

Asthma ranks as the third highest reason for preventable hospitalizations in the U.S. with 470,000 hospitalizations and more than 5,000 deaths each year (American Academy of Allergy Asthma and Immunology Report). Acute asthma accounts for an estimated two-million emergency department visits annually. There are many competitors with asthma products approved or in development. AZX100 has been shown to relax ex vivo airway smooth muscle and may be developed for the treatment of asthmatic attacks. Specific markets include severe acute asthma and asthma that is refractory to current therapies. Severe asthma has been defined as asthma that is refractory to current therapeutic approaches in clinical use (anti-inflammatory agents and bronchodilators). The current approach is to use adrenergic agonists, which activate the cAMP/PKA pathway. AZX100 is a mimetic of the molecule downstream of this pathway and hence may be more sensitive and specific for the treatment of severe asthma. In addition, patients with severe asthma usually are treated in an emergency room; hence efficacy can be closely monitored and outcomes will be apparent in a short time frame after treatment. Recent data has demonstrated that one out of every six asthmatics has a mutation in the adrenergic receptor. These patients do not respond to adrenergic agonists and in fact do worse when treated with adrenergic agonists. This patient population would be potentially effectively treated with the AZX100 compound in that it acts downstream of the receptors.

Intimal Hyperplasia

Intimal hyperplasia is the universal response of a vessel to injury. It is characterized by the thickening of the Tunica intima of a blood vessel as a complication of a reconstruction procedure or endarterectomy, the surgical removal of plaque from an artery that has become narrowed or blocked. Scar tissue forms at the point where a blood vessel is manipulated; as it slowly builds up, significant restenosis may develop. Intimal hyperplasia is an important reason for late bypass graft failure, particularly in vein and synthetic vascular grafts. Patients with end-stage renal disease (approximately 300,000 in the U.S. alone) suffer from intimal hyperplasia due to multiple vein insertions. We are not aware of any existing therapy that effectively modulates this healing response.

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Marketing and Sales

Neither Chrysalin nor AZX100 are currently available for sale and we do not expect them to be available for sale for some time into the future. Thus, we currently have no marketing or sales staff. External consultants and members of our staff provide some technical marketing support relating to the development of, and market need for, new potential products and additional therapeutic applications of products already under research.

Research and Development

Our Pre-clinical, Clinical, Chemical, Materials and Controls, Regulatory and Quality Assurance departments (research and development) consist of approximately 17 employees who are assisted by consultants from the academic and medical practitioner fields. Our employees have extensive experience in the areas of biomaterials, animal modeling, cellular and molecular biology, clinical trial design and data management. Our Clinical department designs, initiates, monitors and manages our clinical trials. Our staff has been focused on pre-clinical studies to advance AZX100 to IND status in a dermal indication, pre-clinical studies investigating AZX100's potential for the treatment of asthma and intimal hyperplasia and exploring the science behind and potential of Chrysalin. In 2008, we intend to perform pre-clinical work on Chrysalin in vascular indications and we intend to commence a Phase 1 safety study in a AZX100 dermal scarring indication. Pending favorable Phase 1 results, we will initiate further safety and dose ranging studies for dermal scarring. We incurred $9.6 million and $19.7 million, in 2007 and 2006, respectively, on research efforts on Chrysalin and AZX100. Given the overlapping nature of our research efforts it is not possible to clearly separate research expenditures between Chrysalin and AZX100; however, the substantial majority of expenditures were Chrysalin-related in 2006, and AZX100 related in 2007. We incurred $25.4 million on Chrysalin research efforts during 2005.

Manufacturing

Currently, third parties certified under Good Manufacturing Practices manufacture Chrysalin and AZX100 for us in limited amounts for our clinical and pre-clinical studies. We use a primary manufacturer for the peptides used in our human clinical trials, but secondary manufacturers are available as needed. Our current Chrysalin and AZX100 formulation and manufacturing work is focused on an injectable formulation.

Patents, Licenses and Proprietary Rights

As part of our purchase of CBI on August 5, 2004, the license agreements between CBI and OrthoLogic for the development, use, and marketing of the therapeutic products within the Chrysalin Product Platform were replaced by a direct license agreement between OrthoLogic and the University of Texas. Under this direct license, we expanded our current license for Chrysalin from a license for only orthopedic indications to a license for any and all indications. Subsequently, we entered into an agreement whereby the University of Texas assigned to us certain patents previously exclusively licensed to us. We must pay the University of Texas continuing royalties, sublicense fees and various other fees in connection with filing and maintaining Chrysalin-related patents. This obligation will expire upon the expiration of the subject patents. Chrysalin has been patented in the United States and in some other countries for a number of methods of use, including cardiovascular, chronic wounds, and orthopedic indications. The patents for hard and soft tissue repair expire between 2007 and 2026.

As part of the February 27, 2006 AzERx transaction, we acquired a license from AzTE, an affiliate of Arizona State University, for worldwide rights to AZX100 for all indications. Under the license agreement with AzTE, we are required to pay patent filing, maintenance and other related patent fees as well as royalties on future sales of products that contain AZX100. These obligations will end on the expiration of the last patent. The license is supported by patents that expire from 2021 to 2024.

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As part of the February 27, 2006 AzERx transaction we also acquired a non-exclusive license from Washington University for a transduction domain carrier patent which forms part of AZX100. Under the license, we are required to pay license maintenance payments and royalties on future sales of products that contain the licensed technology. These obligations will end on the expiration of the last patent.

Chrysalin and OrthoLogic are registered United States domestic trademarks of OrthoLogic Corp.

Insurance

Our business entails the risk of product liability claims. We maintain a product liability and general liability insurance policy and an umbrella excess liability policy. There can be no assurance that liability claims will not exceed the coverage limit of such policies or that such insurance will continue to be available on commercially reasonable terms or at all. Consequently, product liability claims or claims arising from our clinical trials could have a material adverse effect on our business, financial condition and results of operations. We have not experienced any material liability claims to date resulting from our clinical trials.

Employees

As of December 31, 2007, we had thirty employees in our operations, including seventeen employees in research and development, nine in administration and four in facilities and maintenance for our building. As a pure research and development business, we believe that the success of our business will depend, in part, on our ability to identify, attract and retain qualified research personnel, both as employees and as consultants. We face competition from private companies and public institutions for qualified research personnel. None of our employees are represented by a union and we consider our relationship with our employees to be good.

Additional Information about OrthoLogic

OrthoLogic Corp. was incorporated as a Delaware corporation in July 1987 as IatroMed, Inc. We changed our name to OrthoLogic Corp. in July 1991. Our executive offices are located at 1275 West Washington Street, Tempe, Arizona 85281, and our telephone number is (602) 286-5520.

Our website address is www.orthologic.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, as well as any amendments to those reports, are available free of charge through our website as soon as reasonably practical after we file or furnish them to the U.S. Securities and Exchange Commission. Once at our website, go to the “Investors” section to locate these filings.

In March 2004, we adopted a code of conduct that applies to all of our employees and has particular sections that apply only to our principal executive officer and senior financial officers. We posted the text of our code of conduct on our website in the “Investors” section of our website under “Code of Conduct.” In addition, we will promptly disclose on our website (1) the nature of any amendment to our code of conduct that applies to our principal executive officer and senior financial officers, and (2) the nature of any waiver, including an implicit waiver, from a provision of our code of ethics that is granted to one of these specified officers, the name of such officer who is granted the waiver and the date of the waiver.

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In this document references to “we”, “our” and the “Company” refer to OrthoLogic Corp. References to our “Bone Device Business” refer to our former business line of bone growth stimulation and fracture fixation devices, including the OL1000 product line, SpinaLogic®, OrthoFrame® and OrthoFrame/Mayo.

Item 1A Risk Factors

Risks

OrthoLogic may from time to time make written or oral forward-looking statements, including statements contained in our filings with the Securities and Exchange Commission and our reports to stockholders. The safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995 protects companies from liability for their forward looking statements if they comply with the requirements of that Act. This Annual Report on Form 10-K contains forward-looking statements made pursuant to that safe harbor. These forward-looking statements relate to future events or to our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. In some cases, you can identify forward-looking statements by the use of words such as “may,” “could,” “expect,” “intend,” “plan,” “seek,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “continu of these terms or other comparable terminology. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are, in some cases, beyond our control and which could materially affect actual results, levels of activity, performance or achievements. Factors that may cause actual results to differ materially from current expectations, which we describe in more detail in this section titled “Risks,” include, but are not limited to:

- unfavorable results of our product candidate development efforts;
- unfavorable results of our pre-clinical or clinical testing;
- delays in obtaining, or failure to obtain FDA approvals;
- increased regulation by the FDA and other agencies;
- the introduction of competitive products;
- impairment of license, patent or other proprietary rights;
- failure to achieve market acceptance of our products;
- the impact of present and future collaborative or partnering agreements or the lack thereof; and
- failure to successfully implement our drug development strategy.

If one or more of these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may vary significantly from what we projected. Any forward-looking statement you read in this Annual Report on Form 10-K reflects our current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, business strategy and liquidity. We assume no obligation to publicly update or revise these forward-looking statements for any reason, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

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Risks Related to Our Business

We are a biopharmaceutical company with no revenue generating operations and high investment costs.

We expect to incur losses for a number of years as we expand our research and development projects. There is no assurance that our current level of funds will be sufficient to support all research expenses to achieve commercialization of any of our product candidates. On November 26, 2003, we sold all of our revenue generating operations. We are now focused on developing and testing the product candidates in AZX100 and our Chrysalin Product Platform and have allocated most of our resources to bringing these product candidates to the market, either through clinical trials or partnering efforts. We may invest in other peptide or small molecule-based therapeutics in the future, but there can be no assurance that opportunities of this nature will occur at acceptable terms, conditions or timing. We currently have no pharmaceutical products being sold or ready for sale and do not expect to be able to introduce any pharmaceutical products for at least several years. As a result of our significant research and development, clinical development, regulatory compliance and general and administrative expenses and the lack of any products to generate revenue, we expect to incur losses for at least the next several years and expect that our losses will increase if we expand our research and development activities and incur significant expenses for clinical trials. Our cash reserves are the primary source of our working capital. There can be no assurance that our cash resources will be sufficient to cover our future operating requirements, or should there be a need, other sources of cash will be available, or if available, at acceptable terms.

We may not receive any revenue from our product candidates until we receive regulatory approval and begin commercialization of our product candidates. We cannot predict when that will occur or if it will occur.

We caution that our future cash expenditure levels are difficult to forecast because the forecast is based on assumptions about the number of research projects we pursue, the pace at which we pursue them, the quality of the data collected and the requests of the FDA to expand, narrow or conduct additional clinical trials and analyze data. Changes in any of these assumptions can change significantly our estimated cash expenditure levels.

Our product candidates have reached various stages of development but may not be successfully developed or commercialized.

If we fail to commercialize our product candidates, we will not be able to generate revenue. We currently do not sell any products. Our product candidates have reached the following stages of development:

Chrysalin:

· Acceleration of Fracture Repair	Phase 3 / Phase 2b human clinical trials
· Diabetic Foot Ulcer Healing	Phase 1/2 human clinical trials
· Spine Fusion	Phase 1/2 human clinical trials
· Cartilage Defect Repair	Late stage pre-clinical trials
· Tendon Repair	Early stage pre-clinical trials
· Cardiovascular Repair	Pre-clinical trials
· Dental Bone Repair	Pre-clinical trials
· Vascular Endothelial Dysfunction	Early stage pre-clinical testing

AZX100:

· Scarring	IND filed in 2007

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We are subject to the risk that:

- the FDA finds some or all of our product candidates ineffective or unsafe;
- we do not receive necessary regulatory approvals;
- we are unable to get some or all of our product candidates to market in a timely manner;
- we are not able to produce our product candidates in commercial quantities at reasonable costs;
- our products undergo post-market evaluations resulting in marketing restrictions or withdrawal of our products; or
- the patients, insurance and/or physician community does not accept our products.

In addition, our product development programs may be curtailed, redirected or eliminated at any time for many reasons, including:

- adverse or ambiguous results;
- undesirable side effects which delay or extend the trials;
- inability to locate, recruit, qualify and retain a sufficient number of patients for our trials;
- regulatory delays or other regulatory actions;
- difficulties in obtaining sufficient quantities of the particular product candidate or any other components needed for our pre-clinical testing or clinical trials;
- change in the focus of our development efforts; and
- re-evaluation of our clinical development strategy.

We cannot predict whether we will successfully develop and commercialize any of our product candidates. If we fail to do so, we will not be able to generate revenue.

Certain results from our Phase 3 and Phase 2b clinical trials showed that the differences in the primary endpoint analyses between our lead compound, Chrysalin, and the placebo were not statistically significant, which will make it more difficult to obtain FDA approval and result in a substantial delay in our ability to generate revenue.

On March 15, 2006, we reported results of our Phase 3 fracture repair human clinical trial. For the primary endpoint, time to removal of immobilization, no statistically significant difference was observed between placebo and a single injection of Chrysalin. Consistent with the Phase 1/2 human clinical trial results, a statistically significant difference for a secondary endpoint, radiographic evidence of radial cortical bridging, was achieved. However, no statistically significant difference was noted in the study's other secondary endpoints. On March 15, 2006, we temporarily halted our Phase 2b fracture repair dosing clinical trial to perform an interim analysis of the data of the subjects enrolled to that date.

We announced on February 16, 2007 findings of a post-hoc subgroup analysis of data from the Phase 3 clinical trial, which were presented at the American Academy of Orthopedic Surgeons Annual Meeting. This subgroup analysis was based on bone mineral density, a pre-specified stratification. Within the subset of female osteopenic subjects, treatment with 10 μg Chrysalin demonstrated a statistically significant benefit compared to placebo in the primary efficacy endpoint of time to removal of immobilization. Secondary endpoints including time to clinical evaluation of healing, time to radial cortical bridging and time to overall radiographic healing also showed a significant effect of Chrysalin treatment.

On August 29, 2006, we reported the results of interim analysis of data from our Phase 2b dose-ranging clinical trial of the novel synthetic peptide Chrysalin® (TP508) in unstable, displaced distal radius (wrist) fractures and termination of the Phase 2b study. In the dataset of 240 subjects as a group that were evaluable in the Phase 2b interim analysis, treatment with Chrysalin did not demonstrate benefit compared to placebo in the primary efficacy endpoint of time to

removal of immobilization. Individual findings of efficacy in secondary endpoints, including radiographic healing, were not seen in this interim analysis and no dose response relationship was observed. The trial met the pre-specified safety endpoint by demonstrating no significant difference in the incidence of adverse events between the Chrysalin and placebo groups.

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We have implemented a strategic shift in our development approach to our Chrysalin Product Platform. We currently intend to pursue development partnering or licensing opportunities for our Chrysalin-based product candidates, a change from our previous development history of independently conducting human clinical trials necessary to advance our Chrysalin-based product candidates to market.

The results of our Phase 3 and 2b clinical trials increases the risk that we will not be successful and there will be a substantial delay in obtaining FDA approval; may lead to the termination of development efforts for the Chrysalin fracture repair or other Chrysalin-based product candidates; will result in a delay in our ability to generate revenue; will change the amount of revenue we may generate; and could have a material adverse effect on our business going forward.

Our product candidates are all based on the same two chemical peptides, Chrysalin and AZX100. If one of our Chrysalin or AZX100 product candidates reveals safety or fundamental efficacy issues in clinical trials, it could impact the development path for our other current product candidates for that peptide.

Since we are developing the product candidates in the Chrysalin Product Platform in parallel, we expect to learn from the results of each trial and apply some of our findings to the development of the other product candidates in the platform. The fact that the results from the Phase 3 and Phase 2b fracture repair human clinical trials showed no statistical significance between Chrysalin and the placebo for the primary endpoint in the study will likely impact the development path or future development of the other product candidates in the platform. In addition, if we find that one of our Chrysalin product candidates is unsafe in the future, it could impact the development of our other product candidates in clinical trials.

AZX100 is currently in pre-clinical testing and the first human clinical trial for dermal scarring is planned to start in the first quarter of 2008. Should the results of ongoing pre-clinical studies or human clinical trials show negative safety or efficacy data, it may impact the development of our AZX100 product candidates.

If we cannot protect the Chrysalin patents, the AZX100 patents, or our intellectual property generally, our ability to develop and commercialize our products will be severely limited.

Our success will depend in part on our ability to maintain and enforce patent protection for Chrysalin and AZX100 and each product resulting from Chrysalin or AZX100. Without patent protection, other companies could offer substantially identical products for sale without incurring the sizable discovery, development and licensing costs that we have incurred. Our ability to recover these expenditures and realize profits upon the sale of products would then be diminished.

Certain key Chrysalin methods of use patents have expired and other patents will expire during the development period of our Chrysalin Product Platform. We believe our current patents covering formulations and specific indications are adequate to protect the value of the Chrysalin Product Platform. However, if our current patents are not adequate, the value of the Chrysalin Product Platform may be materially adversely impacted.

Chrysalin and AZX100 are patented and there have been no successful challenges to the patents. However, if there were to be a challenge to these patents or any of the patents for product candidates, a court may determine that the patents are invalid or unenforceable. Even if the validity or enforceability of a patent is upheld by a court, a court may not prevent alleged infringement on the grounds that such activity is not covered by the patent claims. Any litigation, whether to enforce our rights to use our or our licensors' patents or to defend against allegations that we infringe third party rights, will be costly, time consuming, and may distract management from other important tasks.

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As is commonplace in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. To the extent our employees are involved in research areas which are similar to those areas in which they were involved at their former employers, we may be subject to claims that such employees and/or we have inadvertently or otherwise used or disclosed the alleged trade secrets or other proprietary information of the former employers. Litigation may be necessary to defend against such claims, which could result in substantial costs and be a distraction to management and which may have a material adverse effect on us, even if we are successful in defending such claims.

We also rely in our business on trade secrets, know-how and other proprietary information. We seek to protect this information, in part, through the use of confidentiality agreements with employees, consultants, advisors and others. Nonetheless, we cannot assure that those agreements will provide adequate protection for our trade secrets, know-how or other proprietary information and prevent their unauthorized use or disclosure. The risk that other parties may breach confidentiality agreements or that our trade secrets become known or independently discovered by competitors, could adversely affect us by enabling our competitors, who may have greater experience and financial resources, to copy or use our trade secrets and other proprietary information in the advancement of their products, methods or technologies.

Our success also depends on our ability to operate and commercialize products without infringing on the patents or proprietary rights of others.

Third parties may claim that we or our licensors or suppliers are infringing their patents or are misappropriating their proprietary information. In the event of a successful claim against us or our licensors or suppliers for infringement of the patents or proprietary rights of others, we may be required to, among other things:

- pay substantial damages;
- stop using our technologies;
- stop certain research and development efforts;
- develop non-infringing products or methods; and
- obtain one or more licenses from third parties.

A license required under any such patents or proprietary rights may not be available to us, or may not be available on acceptable terms. If we or our licensors or suppliers are sued for infringement, we could encounter substantial delays in, or be prohibited from, developing, manufacturing and commercializing our product candidates.

If we do not successfully develop AZX100 we may not recover the value of our investment.

On February 27, 2006, we purchased certain assets and assumed certain liabilities of AzERx, Inc. for $390,000 in cash and the issuance of 1,355,000 shares of our common stock, with a market value of $7.7 million determined by the closing share price on the date the agreement was entered into. The transaction was completed (closed) on February 27, 2006. Under the terms of the transaction, we acquired an exclusive license for the core intellectual property relating to AZX100, a 24-amino acid synthetic peptide. The acquisition provides us with a new technology platform that diversifies the portfolio, and may provide more than one potential product. AZX100 is currently being investigated for medically important and commercially significant applications such as prevention of dermal scarring, pulmonary fibrosis, the treatment of asthma and vascular intimal hyperplasia. While we performed a reasonable level of due diligence on AZX100 and the rights acquired, and in our pre-clinical testing AZX100 has demonstrated a satisfactory safety profile, there can be no assurances that we will recover the costs of our investment from the future development of AZX100 or that commercially significant applications will be developed.

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The loss of our key management and scientific personnel may hinder our ability to execute our business plan.

As a small company our success depends on the continuing contributions of our management team and scientific personnel, and maintaining relationships with the network of medical and academic centers in the United States that conduct our clinical trials. The resignation or retirement of members of senior management or scientific personnel could materially adversely affect our business prospects.

Reliance on Outside Suppliers and Consultants

We rely on outside suppliers and consultants for the manufacture of Chrysalin and AZX100 and technical assistance in our research and development efforts. The inability of our suppliers to meet our production quality requirements in a timely manner, or the lack of availability of experienced consultants to assist in our research and development efforts, could have a material effect on our ability to perform research or clinical trials.

We face an inherent risk of liability in the event that the use or misuse of our products results in personal injury or death.

The use of our product candidates in clinical trials may expose us to product liability claims, which could result in financial losses. Our clinical liability insurance coverage may not be sufficient to cover claims that may be made against us. In addition, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts or scope to protect us against losses. Any claims against us, regardless of their merit, could severely harm our financial condition, strain our management and other resources and adversely impact or eliminate the prospects for commercialization of the product which is the subject of any such claim.

Risks of our Industry

We are in a highly regulated field with high investment costs and high risks.

Chrysalin has been in the human testing phase for three potential products and earlier pre-clinical testing phases for five other potential products. AZX100 is currently in pre-clinical testing with a Phase 1 dermal scarring study planned for early 2008. The FDA and comparable agencies in many foreign countries impose substantial limitations on the introduction of new pharmaceuticals through costly and time-consuming laboratory and clinical testing and other procedures. The process of obtaining FDA and other required regulatory approvals is lengthy, expensive and uncertain. Chrysalin and AZX100 are new drugs and are subject to the most stringent level of FDA review.

Even after we have invested substantial funds in the development of our Chrysalin and AZX100 products and even if the results of our future clinical trials are favorable, there can be no guarantee that the FDA will grant approval of Chrysalin and/or AZX100 for the indicated uses or that it will do so in a timely manner.

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If we successfully bring one or more products to market, there is no assurance that we will be able to successfully manufacture or market the products or that potential customers will buy them if, for example, a competitive product has greater efficacy or is deemed more cost effective. In addition, the market in which we will sell any such products is dominated by a number of large corporations that have vastly greater resources than we have, which may impact our ability to successfully market our products or maintain any technological advantage we might develop. We also would be subject to changes in regulations governing the manufacture and marketing of our products, which could increase our costs, reduce any competitive advantage we may have and/or adversely affect our marketing effectiveness.

The pharmaceutical industry is subject to stringent regulation, and failure to obtain regulatory approval will prevent commercialization of our products.

Our research, development, pre-clinical and clinical trial activities and the manufacture and marketing of any products that we may successfully develop are subject to an extensive regulatory approval process by the FDA and other regulatory agencies in the United States and abroad. The process of obtaining required regulatory approvals for drugs is lengthy, expensive and uncertain, and any such regulatory approvals may entail limitations on the indicated usage of a drug, which may reduce the drug's market potential.

In order to obtain FDA approval to commercialize any product candidate, an NDA must be submitted to the FDA demonstrating, among other things, that the product candidate is safe and effective for use in humans for each target indication. Our regulatory submissions may be delayed, or we may cancel plans to make submissions for product candidates for a number of reasons, including:

- negative or ambiguous pre-clinical or clinical trial results;
- changes in regulations or the adoption of new regulations;
- unexpected technological developments; and
- developments by our competitors that are more effective than our product candidates.

Consequently, we cannot assure that we will make our submissions to the FDA in the timeframe that we have planned, or at all, or that our submissions will be approved by the FDA. Even if regulatory clearance is obtained, post-market evaluation of our products, if required, could result in restrictions on a product's marketing or withdrawal of a product from the market as well as possible civil and criminal sanctions.

Clinical trials are subject to oversight by institutional review boards and the FDA to ensure compliance with the FDA's good clinical practice regulations, as well as other requirements for good clinical practices. We depend, in part, on third-party laboratories and medical institutions to conduct pre-clinical studies and clinical trials for our products and other third-party organizations to perform data collection and analysis, all of which must maintain both good laboratory and good clinical practices. If any such standards are not complied with in our clinical trials, the FDA may suspend or terminate such trial, which would severely delay our development and possibly end the development of a product candidate.

We also currently and in the future will depend upon third party manufacturers of our products, which are and will be required to comply with the applicable FDA Good Manufacturing Practice regulations. We cannot be certain that our present or future manufacturers and suppliers will comply with these regulations. The failure to comply with these regulations may result in restrictions in the sale of, or withdrawal of the products from the market. Compliance by third parties with these standards and practices are outside of our direct control.

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In addition, we are subject to regulation under state and federal laws, including requirements regarding occupational safety, laboratory practices, environmental protection and hazardous substance control, and may be subject to other local, state, federal and foreign regulation. We cannot predict the impact of such regulations on us, although they could impose significant restrictions on our business and require us to incur additional expenses to comply.

If our competitors develop and market products that are more effective than ours, or obtain marketing approval before we do, our commercial opportunities will be reduced or eliminated.

Competition in the pharmaceutical and biotechnology industries is intense and is expected to increase. Several biotechnology and pharmaceutical companies, as well as academic laboratories, universities and other research institutions, are involved in research and/or product development for indications targeted for use by either Chrysalin or AZX100. Many of our competitors have significantly greater research and development capabilities, experience in obtaining regulatory approvals and manufacturing, marketing, financial and managerial resources than we have.

Our competitors may succeed in developing products that are more effective than the ones we have under development or that render our proposed products or technologies noncompetitive or obsolete. In addition, certain of such competitors may achieve product commercialization before we do. If any of our competitors develops a product that is more effective than one we are developing or plan to develop, or is able to obtain FDA approval for commercialization before we do, we may not be able to achieve significant market acceptance for certain products of ours, which would have a material adverse effect on our business.

For a summary of the competitive conditions relating to indications which we are currently considering for Chrysalin and AZX100, see Part I, Item 1 in this Report titled “Competition”.

Our product candidates may not gain market acceptance among physicians, patients and the medical community, including insurance companies and other third party payors. If our product candidates fail to achieve market acceptance, our ability to generate revenue will be limited.

Even if we obtain regulatory approval for our products, market acceptance will depend on our ability to demonstrate to physicians and patients the benefits of our products in terms of safety, efficacy, and convenience, ease of administration and cost effectiveness. In addition, we believe market acceptance depends on the effectiveness of our marketing strategy, the pricing of our products and the reimbursement policies of government and third-party payors. Physicians may not prescribe our products, and patients may determine, for any reason, that our product is not useful to them. Insurance companies and other third party payors may determine not to reimburse for the cost of the therapy. If any of our product candidates fails to achieve market acceptance, our ability to generate revenue will be limited.

Healthcare reform and restrictions on reimbursements may limit our financial returns.

Our ability to successfully commercialize our products may depend in part on the extent to which government health administration authorities, private health insurers and other third party payors will reimburse consumers for the cost of these products. Third party payors are increasingly challenging both the need for, and the price of, novel therapeutic drugs and uncertainty exists as to the reimbursement status of newly approved therapeutics. Adequate third party reimbursement may not be available for our drug products to enable us to maintain price levels sufficient to realize an appropriate return on our investments in research and product development, which could restrict our ability to commercialize a particular drug candidate.

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Risks Related to Our Common Stock and Warrants

Our stock price is volatile and fluctuates due to a variety of factors.

Our stock price has varied significantly in the past (from a high of $9.32 to a low of $1.25 during the period of January 1, 2004 through December 31, 2007) and may vary in the future due to a number of factors, including:

- announcement of the results of, or delays in, preclinical and clinical studies;
- fluctuations in our operating results;
- developments in litigation to which we or a competitor is subject;
- announcements and timing of potential acquisitions, divestitures, capital raising activities or issuance of preferred stock;
- announcements of technological innovations or new products by us or our competitors;
- FDA and other regulatory actions;
- developments with respect to our or our competitors' patents or proprietary rights;
- public concern as to the safety of products developed by us or others; and
- changes in stock market analyst recommendations regarding us, other drug development companies or the pharmaceutical industry generally.

In addition, the stock market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the market price of our stock.

Additional authorized shares of our common stock available for issuance may have dilutive and other material effects on our stockholders.

We are authorized to issue 100,000,000 shares of common stock. As of December 31, 2007, there were 41,758,065 shares of common stock issued and outstanding. However, the total number of shares of our common stock issued and outstanding does not include shares reserved in anticipation of the exercise of options, warrants or additional investment rights. As of December 31, 2007 we had stock options outstanding to purchase approximately 3,200,125 shares of our common stock, the exercise price of which range between $1.42 per share to $7.83 per share, warrants outstanding to purchase 46,706 shares of our common stock with an exercise price of $6.39, warrants outstanding to purchase 357,423 shares of our common stock with an exercise price of $1.91, and we have reserved shares of our common stock for issuance in connection with the potential exercise thereof. Additionally, at our Annual Stockholder Meeting on May 12, 2006, our stockholders approved the OrthoLogic 2005 Equity Incentive Plan, which provides an additional 2,000,000 shares of our common stock for incentive awards. To the extent additional options are granted and exercised or additional stock is issued, the holders of our common stock will experience further dilution. At December 31, 2007, 436,026 shares remain available to grant under the 2005 Equity Incentive Plan. In addition, in the event that any future financing or consideration for a future acquisition should be in the form of, be convertible into or exchangeable for, equity securities, investors will experience additional dilution.

Certain provisions of our amended and restated certificate of incorporation and bylaws will make it difficult for stockholders to change the composition of our board of directors and may discourage takeover attempts that some of our stockholders may consider beneficial.

Certain provisions of our amended and restated certificate of incorporation and bylaws may have the effect of delaying or preventing changes in control if our board of directors determines that such changes in control are not in the best interests of OrthoLogic Corp. and our stockholders. These provisions include, among other things, the following:

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- a classified board of directors with three-year staggered terms;
- advance notice procedures for stockholder proposals to be considered at stockholders' meetings;
- the ability of our board of directors to fill vacancies on the board;
- a prohibition against stockholders taking action by written consent; and
- super majority voting requirements for the stockholders to modify or amend our bylaws and specified provisions of our amended and restated certificate of incorporation.

These provisions are not intended to prevent a takeover, but are intended to protect and maximize the value of our stockholders' interests. While these provisions have the effect of encouraging persons seeking to acquire control of our company to negotiate with our board of directors, they could enable our board of directors to prevent a transaction that some, or a majority, of our stockholders might believe to be in their best interests and, in that case, may prevent or discourage attempts to remove and replace incumbent directors. In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which prohibits business combinations with interested stockholders. Interested stockholders do not include stockholders whose acquisition of our securities is pre-approved by our board of directors under Section 203.

We may issue additional shares of preferred stock that have greater rights than our common stock and also have dilutive and anti-takeover effects.

We are permitted by our amended and restated certificate of incorporation to issue up to 2,000,000 shares of preferred stock. We can issue shares of our preferred stock in one or more series and can set the terms of the preferred stock without seeking any further approval from our common stockholders or other security holders. Any preferred stock that we issue may rank ahead of our common stock in terms of dividend priority or liquidation rights and may have greater voting rights than our common stock.

In connection with a Rights Agreement dated as of June 19, 2007 between us and the Bank of New York, (the "Rights Agreement"), our board approved the designation of 1,000,000 shares of Series A Preferred Stock. The Rights Agreement and the exercise of rights to purchase Series A Preferred Stock pursuant to the terms thereof may delay, defer or prevent a change in control because the terms of any issued Series A Preferred Stock would potentially prohibit our consummation of certain extraordinary corporate transactions without the approval of the Board. In addition to the anti-takeover effects of the rights granted under the Rights Agreement, the issuance of preferred stock, generally, could have a dilutive effect on our stockholders.

We have not previously paid dividends on our common stock and we do not anticipate doing so in the foreseeable future.

We have not in the past paid any dividends on our common stock and do not anticipate that we will pay any dividends on our common stock in the foreseeable future. Any future decision to pay a dividend on our common stock and the amount of any dividend paid, if permitted, will be made at the discretion of our board of directors.

Developments in any of these areas, which are more fully described elsewhere in "Item 1 - Business," and "Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations" could cause our results to differ materially from results that have been or may be projected by us.

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Item 1B Unresolved Staff Comments

None.

Item 2. Properties

During the years 1998 – 2007, we leased a facility in Tempe, Arizona, which is an approximately 100,000 square foot facility designed and constructed for industrial purposes and is located in an industrial district. It is the same facility we leased prior to our November 2003 divestiture of our bone growth stimulation device business. Following the divestiture, we occupied approximately 20% of the building capacity and subleased some portions of the building to other companies. This lease expired December 31, 2007. In July 2007, we entered into a new five-year lease for 17,000 square feet of space in the same Tempe facility, which became effective at the end of our current lease. We believe the facility is well-maintained and adequate for use through the end of our lease term.

Item 3. Legal Proceedings

None.

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

None.

PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock commenced trading on NASDAQ on January 28, 1993 and is currently trading on the NASDAQ Global Market under the symbol "OLGC." The following table sets forth, for the fiscal periods indicated, the range of high and low sales prices of our common stock.

	2007		2006	
	High	Low	High	Low
First Quarter	$ 1.80	$ 1.35	$ 6.20	$ 2.08
Second Quarter	$ 1.64	$ 1.40	$ 2.18	$ 1.54
Third Quarter	$ 1.60	$ 1.35	$ 1.80	$ 1.25
Fourth Quarter	$ 1.59	$ 1.28	$ 1.46	$ 1.26

As of February 29, 2008, 41,758,065 shares of our common stock were outstanding and held by approximately 1,000 stockholders of record.

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Performance Graph

STOCK PERFORMANCE GRAPH

This performance graph shall not be deemed to be "soliciting material" or to be "filed" with the SEC, or subject to Regulation 14A or 14C, other than as provided in Item 201 of Regulation S-K, or subject to the liability of Section 18 of the Exchange Act, nor shall it be deemed incorporated by reference in any of our filings under the Securities Act or Exchange Act, except to the extent that we specifically request incorporation by reference thereof.

Set forth below is a graph comparing the cumulative total shareholder return on our Common Stock to the cumulative total return of (i) the NASDAQ Biotechnology Index, and (ii) the Russell 2000 Index. We believe that the NASDAQ Biotechnology Index, which is composed of companies that are classified as either biotechnology or pharmaceutical, is an appropriate index for comparison. While many of the companies listed on that index may be larger in size based on market capitalization, the type of research and development work is comparable to our activities. The graph is generated by assuming that $100 was invested on the last trading day in the fiscal year ended December 31, 2002 in each of our Common Stock, the NASDAQ Biotechnology Index, and the Russell 2000 Index (all assume no dividends).

Dividends.

We have never paid a cash dividend on our common stock. Our Board of Directors currently does not intend to pay any cash dividends on our common stock in the foreseeable future.

Recent Sales of Unregistered Securities.

None.

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Issuer Purchases of Equity Securities.

None.

Item 6. Selected Financial Data

SELECTED FINANCIAL DATA

The selected financial data for each of the five years in the period ended December 31, 2007, is derived from our audited financial statements. The selected financial data should be read in conjunction with the financial statements, related notes to the financial statements and other financial information appearing elsewhere in this annual report on Form 10-K and particularly the discussion in "Management's Discussion and Analysis of Financial Condition and Results of Operations." We sold our bone growth stimulation device business ("Bone Device Business") on November 26, 2003. On August 5, 2004, we purchased substantially all the assets and the intellectual property of CBI. We became a development stage company commensurate with the CBI acquisition. On February 27, 2006, we purchased certain assets and assumed certain liabilities of AzERx. The financial data as presented below reflects the gain on the sale of the bone growth stimulation device business and its results of operations prior to the sale as discontinued operations and reflects the purchased net assets of CBI and AzERx from the dates of those respective acquisitions.

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STATEMENTS OF OPERATIONS DATA
(A Development Stage Company)
(in thousands, except per share amounts)

	Years Ended December 31,				
	2007	2006(1)	2005(2)	2004(3)	2003(4)
Operating expenses					
General and administrative	$ (3,738)	$ (6,558)	$ (4,910)	$ (3,306)	$ (4,331)
Research and development	(9,641)	(19,661)	(25,444)	(17,116)	(9,008)
Purchased in-process research and development	-	(8,471)	-	(25,840)	-
Other gains	-	-	250	347	743
Total operating expenses	(13,379)	(34,690)	(30,104)	(45,915)	(12,596)
Interest and other income, net	3,278	3,883	2,640	1,464	568
Loss from continuing operations before taxes	(10,101)	(30,807)	(27,464)	(44,451)	(12,028)
Income taxes (expense) benefit	-	(1,106)	108	642	4,414
Loss from continuing operations	(10,101)	(31,913)	(27,356)	(43,809)	(7,614)
Discontinued operations					
Net gain on the sale of the bone device business net of taxes $0, $0, $96, ($363), $5,205 respectively	-	-	154	2,048	72,692
Income from the operations of the bone device business net of taxes ($4,414 in 2003)	-	-	-	-	7,358
Net income from discontinued operations	-	-	154	2,048	80,050
NET INCOME (LOSS)	$ (10,101)	$ (31,913)	$ (27,202)	$ (41,761)	$ 72,436
Per Share Information:					
Net loss from continuing operations					
Basic	$ (0.24)	$ (0.78)	$ (0.72)	$ (1.22)	$ (0.23)
Diluted	$ (0.24)	$ (0.78)	$ (0.72)	$ (1.22)	$ (0.23)
Net income (loss) from discontinued operations					
Basic	$ -	$ -	$ -	$ 0.06	$ 2.43
Diluted	$ -	$ -	$ -	$ 0.06	$ 2.38
Net income (loss)					
Basic	$ (0.24)	$ (0.78)	$ (0.72)	$ (1.16)	$ 2.20
Diluted	$ (0.24)	$ (0.78)	$ (0.72)	$ (1.16)	$ 2.16
Basic shares outstanding	41,644	40,764	38,032	35,899	32,970
Equivalent shares	-	-	-	-	613
Diluted shares outstanding	41,644	40,764	38,032	35,899	33,583

1. Research and development expenses in 2006 include recognition of a $2,100,000 patent cost impairment loss. Operating expenses in 2006 included $8,471,000 of purchased in-process research and development costs associated with the AzERx acquisition in February 2006. Income tax expenses in 2006 included the recording of a $1,106,000 valuation allowance for a deferred tax asset related to a Alternative Minimum Tax credit carryover.

2. Total operating expenses in 2005 were reduced by $250,000 as a result of a final settlement payment received from the buyer of the CPM business. A net gain of $154,000 was recognized on the sale of the Bone Device Business (defined below) due to receipt of the entire escrow deposit outstanding.

3. On August 5, 2004, we completed the acquisition of CBI. OrthoLogic expensed in-process research and development and acquisition costs of $25.8 million.

A net gain of $2,048,000 was recognized on the sale of the Bone Device Business primarily due to a decrease in the risk related to the potential exposure of the representations and warranties provided in the governing asset purchase agreement.

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4. On November 26, 2003, we completed the sale of all the assets and related liabilities of our Bone Device Business. The Bone Device Business comprised all our revenue generating operations. Our financial statements for the year ended December 31, 2003 include the results of operations prior to the divestiture and the related gain on the sale as discontinued operations.

Total operating expenses in 2003 were reduced by $743,000 as a result of settlement payments received against the contingent payment due from the buyer of the CPM business and additional collections of the accounts receivable balances which were fully reserved.

BALANCE SHEET DATA
(in thousands)

	December 31,				
	2007	2006	2005	2004	2003
Working capital	$ 37,684	$ 52,533	$ 78,423	$ 88,955	$ 112,775
Total assets	$ 61,862	$ 72,589	$ 88,343	$ 115,184	$ 130,106
Long term liabilities, less current maturities	$ -	$ -	$ 183	$ 137	$ 280
Stockholders' equity	$ 59,461	$ 69,148	$ 84,178	$ 110,930	$ 123,975

ItemManagement's Discussion and Analysis of Financial Conditions and Results of Operations
7.

OVERVIEW OF BUSINESS

Company History

Prior to November 26, 2003, we developed, manufactured and marketed proprietary, technologically advanced orthopedic products designed to promote the healing of musculoskeletal bone and tissue, with particular emphasis on fracture healing and spine repair. Our product lines included bone growth stimulation and fracture fixation devices including the OL1000 product line, SpinaLogic® and OrthoFrame/Mayo, which we sometimes refer to as our "Bone Device Business."

On November 26, 2003, we sold our Bone Device Business. Our principal business remains focused on tissue repair, although through biopharmaceutical approaches rather than through the use of medical devices.

On August 5, 2004, we purchased substantially all of the assets and intellectual property of Chrysalis Biotechnology, Inc. ("CBI"), including its exclusive worldwide license for Chrysalin for all medical indications. We became a development stage entity commensurate with the acquisition. Subsequently, all of our collective efforts were focused on research and development of our Chrysalin Product Platform, with the goal of commercializing our products. We currently own exclusive worldwide rights to Chrysalin.

On February 27, 2006 we purchased certain assets and assumed certain liabilities of AzERx, Inc. Under the terms of the transaction, we acquired an exclusive license for the core intellectual property relating to AZX100, a 24-amino acid synthetic peptide. We have an exclusive worldwide license to AZX100.

Chrysalin and OrthoLogic are registered United States domestic trademarks of OrthoLogic Corp.

Our development activities for the Chrysalin Product Platform and AZX100 represent a single operating segment as they share the same product development path and utilize the same Company resources. As a result, we have

determined that it is appropriate to reflect our operations as one reportable segment. Through December 31, 2007, we have incurred $101 million in net losses as a development stage company.

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Description of the business

OrthoLogic is a biotechnology company committed to developing a pipeline of novel peptides and other molecules aimed at helping patients with under-served conditions. We are focused on the development and commercialization of two product platforms: Chrysalin® (TP508) and AZX100.

Chrysalin Product Platform

Chrysalin (TP508), a novel synthetic 23-amino acid peptide, is believed to produce angiogenic and other tissue repair effects by activating or upregulating nitric oxide synthase (NOS) and the production of nitric oxide in endothelial cells, and if so, it may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction. The Chrysalin molecule serves as the basis for a group of potential therapeutic products we refer to collectively as the "Chrysalin Product Platform." We have conducted clinical trials for two potential Chrysalin products, acceleration of fracture repair, and diabetic foot ulcer. We previously conducted a pilot study for spine fusion. We have conducted pre-clinical testing for cartilage defect repair, cardiovascular repair, dental bone repair, and tendon repair. We are initiating study of other potential vascular indications.

The development of each of our potential product candidates in the Chrysalin Product Platform is based on our collective knowledge and understanding of how Chrysalin contributes to the repair of tissue. While there are important differences in each of the product candidates in terms of purpose (fracture repair, diabetic foot ulcer healing, etc.) each product candidate is focused on accelerating and enhancing tissue repair.

Chrysalin Product Platform Status

- We believe that the results of our efforts to date support that Chrysalin may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction.

- We are continuing pre-clinical experiments tying Chrysalin to potential modulation of the health of endothelial tissue in blood vessels and other mechanism-of-action studies.

- We are focusing our efforts on vascular product candidates and are not currently planning additional pre-clinical or clinical studies in fracture repair, wound healing, spine fusion, cartilage defect repair, dental bone repair or tendon repair.

- Although we do not currently plan to re-enter clinical trials with Chrysalin, evaluations are ongoing as to the appropriate pre-clinical and clinical studies which would serve to strengthen our portfolio and partnering possibilities.

    - In 2008 we will continue to explore the science behind and potential of Chrysalin.

AZX100

AZX100, our second peptide, is a novel synthetic pre-clinical 24-amino acid peptide. AZX100 relaxes smooth muscle, which modulates blood pressure and the function of blood vessels, airways, sphincters, the gastrointestinal tract and the genitourinary tract. Sustained abnormal contraction of any of these muscles is called spasm. Any disorders known to be associated with excessive constriction or inadequate dilation of smooth muscle represent potential applications for AZX100.

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AZX100 may also inhibit the fibrotic phenotype of fibroblasts and smooth muscle cells in a mechanism similar to that which causes vasorelaxation. Through phenotypic modulation of fibroblasts and smooth muscle cells, AZX100 may inhibit the scarring that results from wound healing and disease states in the dermis, blood vessels, lungs, liver and other organs.

We are executing a development plan for this peptide which included the filing of an IND for a dermal indication in 2007 and includes the intention to commence a Phase 1 safety study in dermal scarring in the first quarter of 2008. The first safety study will include approximately 30 healthy subjects and is expected to be completed in mid 2008. Pending favorable results, we will initiate further safety and dose-ranging studies for dermal scarring.

We continue to explore other biopharmaceutical compounds that can complement our research activity internally and broaden our potential pipeline for successful products.

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires that management make a number of assumptions and estimates that affect the reported amounts of assets, liabilities, and expenses in our financial statements and accompanying notes. Management bases its estimates on historical experience and various other assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact the Company in the future, actual results may differ from these estimates and assumptions. Our critical accounting policies are those that affect, or could affect, our financial statements materially and involve a significant level of judgment by management.

Income Taxes: SFAS No. 109 "Accounting for Income Taxes" requires that a valuation allowance be established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. Changes in valuation allowances from period to period are included in the tax provision in the period of change. In determining whether a valuation allowance is required, we take into account all evidence with regard to the utilization of a deferred tax asset included in past earnings history, expected future earnings, the character and jurisdiction of such earnings, unsettled circumstances that, if unfavorably resolved, would adversely affect utilization of a deferred tax asset, carryback and carryforward periods, and tax strategies that could potentially enhance the likelihood of realization of a deferred asset. We have evaluated the available evidence about future taxable income and other possible sources of realization of deferred tax assets and have established a valuation allowance of approximately $39 million at December 31, 2007. The valuation allowance includes approximately $6 million for net operating loss carry forwards that relate to stock option compensation expense for income tax reporting purposes. Any utilization of these net operating loss carry forwards would be recorded as an increase to additional paid-in capital. The valuation allowance reduces deferred tax assets to an amount that management believes will more likely than not be realized. The results of our Phase 3 Chrysalin fracture repair human clinical trial resulted in a change in our planned clinical pathway and timeline for our Chrysalin fracture repair indication. This change, when factored with our current significant net operating loss carryovers and current period net loss, resulted in a revision of our estimate of the need for a valuation allowance for the previously recorded deferred tax asset related to a Alternative Minimum Tax credit carryover. Due to the uncertainty that the deferred tax asset will be realized, we recorded a valuation allowance for the full amount of the deferred tax asset ($1,106,000) in 2006.

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We have accumulated approximately $89 million in federal and $77 million in state net operating loss carryforwards ("NOLs") and approximately $4 million of general business and alternative minimum tax credit carryforwards. The federal NOLs expire from 2023 and the state NOL's expire from 2019 and their availability for use to offset future taxable income would be limited should a change in ownership, as defined in Section 382 of the Internal Revenue Code, occur.

We adopted the provisions of Financial Accounting Standards Board ("FASB") Interpretation NO. 48, "Accounting for Uncertainty in Income Taxes – an interpretation of SFAS No. 109" ("FIN 48"), on January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS Statement 109, "Accounting for Income Taxes", and prescribes a recognition threshold and measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 also provides guidance on derecognition classification, interest and penalties, accounting in interim periods, disclosure and transition.

We may from time to time be assessed interest or penalties by major tax jurisdictions, although any such assessments historically have been minimal and immaterial to our financial results. In the event we have received an assessment for interest and/or penalties, it has been classified in the financial statements as income tax expense.

Patents: On November 2, 2006, we announced that we have no immediate plans to re-enter clinical trials for Chrysalin-based product candidates and a strategic shift in our development approach to our Chrysalin product platform. We currently intend to pursue development partnering or licensing opportunities for our Chrysalin-based product candidates, a change from its previous development history of independently conducting human clinical trials necessary to advance our Chrysalin-based product candidates to market. SFAS No. 142 requires an impairment loss be recognized for an amortizable intangible asset whenever the net cash in-flow to be generated from an asset is less than its carrying cost. We are unable to determine the timing or amount of net cash in-flow to be generated from Chrysalin-based product candidates. Accordingly, due to this uncertainty, we recognized an impairment loss for the amount of unamortized Chrysalin product platform patent costs of $2,100,000 in 2006. The impairment loss is included in research and development expenses in 2006.

Stock based compensation: Effective January 1, 2006, we adopted SFAS No. 123 (revised 2004), "Share-Based Payment", (SFAS 123(R)). SFAS 123(R) requires all share-based payments, including grants of stock options, restricted stock units and employee stock purchase rights, to be recognized in our financial statements based on their respective grant date fair values. Under this standard, the fair value of each employee stock option and employee stock purchase right is estimated on the date of grant using an option pricing model that meets certain requirements. We currently use the Black-Scholes option pricing model to estimate the fair value of our share-based payments. The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. We use the historical volatility adjusted for future expectations. The expected life of the stock options is based on historical data and future expectations. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our stock options and stock purchase rights. The dividend yield assumption is based on our history and expectation of dividend payouts. The fair value of our restricted stock units is based on the fair market value of our common stock on the date of grant. Stock-based compensation expense recognized in our financial statements in 2006 and thereafter is based on awards that are ultimately expected to vest. The amount of stock-based compensation expense in 2006 and thereafter will be reduced for estimated forfeitures. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We will evaluate the assumptions used to value stock awards on a quarterly basis. If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. To the extent that we grant additional equity securities to employees, our stock-based compensation expense will be increased by the additional compensation resulting from those additional grants.

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Results of Operations Comparing Years Ended December 31, 2007 and 2006.

General and Administrative ("G&A") Expenses: G&A expenses related to our ongoing development operations decreased by $2,820,000 to $3,738,000 in the year ended December 31, 2007 from $6,558,000 in 2006. Our administrative expenses during the year ended December 31, 2007 were lower than 2006, primarily as a result of a decrease of non-cash stock compensation expense of $1,433,000, reduced costs in 2007 reflecting management changes and staff reductions which occurred in the first half of 2006, and general cost containment efforts.

Research and Development Expenses: Research and development expenses were $9,641,000 for the year ended December 31, 2007 compared to $19,661,000 in 2006. Our research and development expenses decreased $10,020,000 in the year ended December 31, 2007 compared to 2006, primarily due to a $5.5 million decline in clinical costs related to our fracture repair Phase 3 and Phase 2b clinical trials, which were substantially completed as of December 31, 2006 and a Chrysalin product platform patent impairment loss of $2.1 million recorded in 2006. Given the overlapping nature of our research efforts it is not possible to clearly separate research expenditures between Chrysalin and AZX100; however, currently we anticipate that the substantial majority of our research and development expenses in 2008 will be directed towards AZX100 development efforts.

Interest and Other Income, Net: Interest and other income net decreased from $3,883,000 in the year ended December 31, 2006 to $3,278,000 in 2007, due to a reduction in the cash and investments available for investment during 2007.

Net Loss: We incurred a net loss in 2007 of $10.1 million compared to a net loss of $31.9 million in 2006. The $21.8 million decrease in the net loss in the year ended December 31, 2007 compared to the same period in 2006, results primarily from $8.5 million purchased in-process research and development costs in 2006, a decrease of $2.0 million in non-cash stock compensation expense, reduced costs in 2007 reflecting management changes and staff reductions which occurred in the first half of 2006, a $5.5 million decline in clinical costs related to our fracture repair Phase 3 and Phase 2b clinical trials, which were substantially completed as of December 31, 2006, a Chrysalin product platform patent impairment loss of $2.1 million recorded in 2006, and the recognition in 2006 of income tax expense related to the recording of a valuation allowance of $1.1 million for a deferred tax asset related to a Alternative Minimum Tax credit carryover.

Results of Operations Comparing Years Ended December 31, 2006 and 2005.

General and Administrative ("G&A") Expenses: G&A expenses related to our ongoing development operations increased by $1,648,000 from $4,910,000 in 2005 to $6,558,000 in 2006. Our administrative expenses during 2006 were higher than 2005, primarily as a result of stock compensation expense of $1,946,000, as disclosed in Note 8 to the financial statements, a reduction in the allocation of general and administrative expenses to research and development due to the decline in clinical activity, partially offset by a general reduction of expenses due to cost containment efforts.

Research and Development Expenses: Research and development expenses were $19,661,000 in 2006 compared to $25,444,000 in 2005. Our research and development expenses decreased $5,783,000 in 2006 over the same period in 2005 primarily due to the substantial completion of our Phase 3 human clinical trial for fracture repair and the temporary interruption and later termination of our Phase 2b dose-ranging human clinical trial for fracture repair. This decrease in clinical trial costs was partially offset by recognition of a $2,100,000 Chrysalin product platform patent impairment loss and stock compensation expense of $835,000. The primary focus of our research and development work was our Chrysalin-based fracture repair indication. On November 2, 2006, we announced that we have no immediate plans to re-enter clinical trials for Chrysalin-based product candidates and a strategic shift in our development approach to our Chrysalin Product Platform. During 2006 we commenced pre-clinical work on AZX100; however, the substantial majority of expenditures in 2006 were related to our Chrysalin product platform

development efforts.

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Interest and Other Income, Net: Interest and other income, net increased from $2,640,000 in 2005 to $3,883,000 in 2006 due primarily to the increase in interest rates between the two periods.

Net Loss: We incurred a net loss in 2006 of $31.9 million compared to a net loss of $27.2 million in 2005. The $4.7 million increase in the net loss in 2006 compared to the same period in 2005, results primarily from $2.8 million of stock compensation expense, recognition of a $2.1 million Chrysalin product platform patent impairment loss, $8.4 million of in-process research and development costs related to the acquisition of the AZX100 technology platform and recognition of income tax expense related to the recording of a valuation allowance of $1.1 million for a deferred tax asset related to a Alternative Minimum Tax credit carryover. These items were partially offset by the decrease in fracture repair human clinical trial activity compared to the same period in 2005 and a general reduction of expenses due to cost containment efforts.

Liquidity and Capital Resources

We have historically financed our operations through operating cash flows and the public and private sales of equity securities. However, with the sale of our Bone Device Business in November 2003, we sold all of our revenue producing operations. Since that time, we have relied on our cash and investments to finance all our operations, the focus of which was research and development of our Chrysalin Product Platform. We received approximately $93.0 million in cash from the sale of our Bone Device Business. On December 1, 2005, we received the additional $7.2 million, including interest, from the escrow balance related to the sale of the Bone Device Business. On February 27, 2006, we entered into an agreement with Quintiles (see Note 15 to the financial statements), which provided an investment by Quintiles in our common stock, of which $2,000,000 was received on February 27, 2006 and $1,500,000 was received on July 3, 2006. We also received net proceeds of $4,612,000 from the exercise of stock options during our development stage period. At December 31, 2007, we had cash and cash equivalents of $20.9 million, short-term investments of $18.2 million and long-term investments of $21.5 million.

We announced that we have no immediate plans to re-enter clinical trials for Chrysalin-based product candidates and a strategic shift in our development approach to our Chrysalin Product Platform. We currently intend to pursue development partnering or licensing opportunities for our Chrysalin-based product candidates, a change from our previous development history of independently conducting human clinical trials necessary to advance our Chrysalin-based product candidates to market. We will continue to explore Chrysalin’s therapeutic value in tissues and diseases exhibiting endothelial dysfunction as well as the science behind and potential of Chrysalin. We will also continue research and development expenditures for further pre-clinical studies supporting multiple indications for AZX100 and plan to commence a Phase 1 dermal scarring human clinical trial in the first quarter of 2008.

Our future research and development expenses may vary significantly from prior periods depending on the Company’s decisions on its future Chrysalin and AZX100 development plans.

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We anticipate that our cash and short-term investments will be sufficient to meet our presently projected cash and working capital requirements for the next year. However, the timing and amounts of cash used will depend on many factors, including our ability to continue to control our expenditures related to our research and development programs, including our planned AZX100 dermal scarring clinical trials. If we decide to expand our clinical trials or if we consider other opportunities in the market, our expense levels may change, which could require us to seek other sources of capital. If additional funding is required, we would be required to seek new sources of funds, including raising capital through the sales of securities or licensing agreements. These sources of funds may not be available or could only be available at terms that would have a material adverse impact on our existing stockholders' interests.

The following table sets forth all known commitments as of December 31, 2007 and the year in which these commitments become due or are expected to be settled:

		Payments due by period:		
	Total	Less than 1 year	1 - 3 years	3 to 5 years
Operating lease obligation	$ 1,360,000	$ 263,000	$ 527,000	$ 570,000
Research and clinical obligation	627,000	627,000	-	-
Consulting contracts	236,000	205,000	31,000	-
Open purchase order for supplies	18,000	18,000	-	-
	$ 2,241,000	$ 1,113,000	$ 558,000	$ 570,000

(1) A lease commitment of $1.4 million refers to our real property lease in Tempe, Arizona. We occupy approximately 17,000 square feet of space in the building under a five year lease which commenced March 1, 2008.

(2) We anticipate paying all our liabilities with our cash resources.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We had no debt and no derivative instruments at December 31, 2007. Our investment portfolio is used to preserve our capital until it is required to fund our operations. Our investment instruments are classified as held-to-maturity. We do not own derivative financial instruments in our investment portfolio. We maintain a non-trading investment portfolio of investment grade securities that limits the amount of credit exposure of any one issue, issuer or type of instrument. Due to the short duration and conservative nature of these instruments, we do not believe that we have a material exposure to interest rate risk.

A summary of the maturity of our long-term investments, which consist primarily of U.S. Government Obligations, is as follows:

2009	$ 19,238,000
2010	2,221,000
	$ 21,459,000

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Item 8. Financial Statements and Supplementary Data

Balance sheets, as of December 31, 2007 and December 31, 2006, and statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2007, and for the statement of operations and cash flow for the period of August 5, 2004 through December 31, 2007, together with the related notes and the reports of Ernst & Young, LLP and Deloitte & Touche LLP, independent registered public accounting firms, are set forth on the "F" pages of the Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rules 13a-15(e) and 15d – 15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

Management's Annual Report on Internal Control Over Financial Reporting

The management of OrthoLogic Corp. (a development stage company) is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in Internal Control - Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2007.

Ernst & Young LLP, the independent registered public accounting firm that audited the financial statements of the Company included in this Annual Report on Form 10-K, has issued a report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2007. The report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2007, is included herein under the heading "Report of Independent Registered Public Accounting Firm" following Item 9B.

Management's Annual Report on Changes in Internal Controls

There have not been any changes in our internal controls over financial reporting during the fiscal quarter ended December 31, 2007, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of OrthoLogic Corp.

We have audited OrthoLogic Corp.'s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). OrthoLogic Corp.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, OrthoLogic Corp. (a development stage company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheet of OrthoLogic Corp. (a development stage company) as of December 31, 2007 and 2006 and the related statements of operations, stockholders' equity, and cash flows for the years then ended, and for the period August 5, 2004 (inception of development stage) through December 31, 2007 and our report dated March 3, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Phoenix, Arizona
March 3, 2008

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PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required herein is incorporated by reference pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement with the Securities and Exchange Commission for the 2008 Annual Meeting of Stockholders to be held on May 9, 2008, no later than 120 days after the close of its fiscal year ended December 31, 2007.

Item 11. Executive Compensation

The information required herein is incorporated by reference pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement with the Securities and Exchange Commission for the 2008 Annual Meeting of Stockholders to be held on May 9, 2008, no later than 120 days after the close of its fiscal year ended December 31, 2007.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholders Matters

The information required herein is incorporated by reference pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement with the Securities and Exchange Commission for the 2008 Annual Meeting of Stockholders to be held on May 9, 2008, no later than 120 days after the close of its fiscal year ended December 31, 2007.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required herein is incorporated by reference pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement with the Securities and Exchange Commission for the 2008 Annual Meeting of Stockholders to be held on May 9, 2008, no later than 120 days after the close of its fiscal year ended December 31, 2007.

Item 14. Principal Accountant Fees and Services

The information required herein is incorporated by reference pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement with the Securities and Exchange Commission for the 2008 Annual Meeting of Stockholders to be held on May 9, 2008, no later than 120 days after the close of its fiscal year ended December 31, 2007.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this report:

1. Financial Statements

The following financial statements of OrthoLogic Corp. and Reports of Independent Registered Public Accounting Firms are presented in the “F” pages of this report:

Reports of Independent Registered Public Accounting Firms

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Balance Sheets - December 31, 2007 and 2006

Statements of Operations - Each of the three years in the period ended December 31, 2007 and for the period of August 5, 2004 through December 31, 2007

Statements of Stockholders' Equity - Each of the three years in the period ended December 31, 2007

Statements of Cash Flows - Each of the three years in the period ended December 31, 2007 and for the period of August 5, 2004 through December 31, 2007

Notes to Financial Statements

2. Financial Statement Schedule II Valuation and Qualifying Accounts. The information for Schedule II as well as other Schedules has been omitted since they are not applicable.

3. All management contracts and compensatory plans and arrangements are specifically identified on the attached Exhibit Index.

(b) Exhibits

See the Exhibit Index following the signature page of this report, which Index is incorporated herein by reference.

(c) Financial Statements and Schedules - See Item 15(a)(1) and Item 15(a)(2) above.

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SIGNATURES

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

ORTHOLOGIC CORP.

Date: March 5, 2008

By /s/ John M. Holliman, III
John M. Holliman, III
Executive Chairman

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

Signature	Title	Date
/s/ John M. Holliman, III John M. Holliman, III	Executive Chairman (Principal Executive Officer) and Director	March 5, 2008
/s/ Fredric J. Feldman Fredric J. Feldman, Ph.D.	Director	March 5, 2008
/s/ Elwood D. Howse, Jr. Elwood D. Howse, Jr.	Director	March 5, 2008
/s/ William M. Wardell William M. Wardell, MD, Ph.D.	Director	March 5, 2008
/s/ Augustus A. White, III Augustus A. White III, MD.	Director	March 5, 2008
/s/ Randolph C. Steer Randolph C. Steer, MD, Ph.D.	President	March 5, 2008
/s/ Les M. Taeger Les M. Taeger	Senior Vice President and Chief	March 5, 2008

Financial Officer (Principal Financial and Accounting Officer)

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OrthoLogic Corp.
Exhibit Index to Annual Report on Form 10-K
For the Year Ended December 31, 2007

Exhibit No.	Description	Incorporated by Reference To:	Filed Herewith
2.1	Asset Purchase Agreement and Plan of Reorganization by and between OrthoLogic Corp. and Chrysalis Biotechnology, dated April 28, 2004 (*)	Exhibit 2.1 to the Company's Registration Statement on Form S-4 filed with the SEC on June 3, 2004 ("June 2004 S-4")	
2.2	Amendment No. 1 to Asset Purchase Agreement and Plan of Reorganization by and between OrthoLogic Corp. and Chrysalis Biotechnology, dated June 1, 2004 (*)	Exhibit 2.2 to the Company's June 2004 S-4	
2.3	Amendment No. 2 to Asset Purchase Agreement and Plan of Reorganization between OrthoLogic Corp. and Chrysalis Biotechnology, Inc., dated August 5, 2004 (*)	Exhibit 2.1 to the Company's Current Report on Form 8-K filed on August 6, 2004	
2.4	Asset Purchase Agreement and Plan of Reorganization by and between OrthoLogic Corp. and AzERx, Inc., dated February 23, 2006 (*)	Exhibit 10.1 to the Company's Registration Statement on Form S-3 filed with the SEC on April 25, 2006	
3.1	Restated Certificate of Incorporation, executed April 15, 2005	Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005, filed with the SEC on May 10, 2005 ("March 2005 10-Q")	
3.2	Amended and Restated Certificate of Designation of Series A Preferred Stock, executed June 19, 2007	Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on June 25, 2007 (the "June 25th 2007 8-K")	
3.3	Bylaws of the Company	Exhibit 3.4 to the Company's Amendment No. 2 to Registration Statement on Form S-1 (No. 33-47569) filed with the SEC on January 25, 1993 ("January 1993 S-1")	
4.1	Class A Warrant Agreement dated February 24, 2006, between OrthoLogic Corp. and PharmaBio Development Inc. (d/b/a NovaQuest)	Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on March 3, 2006	
4.2	Form of Additional Class A Warrant Agreement related to the Common Stock and Warrant Purchase Agreement by and between OrthoLogic Corp. and PharmaBio Development, Inc.	Exhibit 4.8 to the Company's Registration Statement on Form S-3 filed with the SEC on April 13, 2006 ("April 2006 S-3")	
4.3	Class A Warrant Agreement dated June 30, 2006 by and between OrthoLogic Corp. and PharmaBio Development, Inc	Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on July 6, 2006	
4.4			

	Amended and Restated Class B Warrant Agreement dated February 24, 2006, and amended and restated as of June 30, 2006, related to the Common Stock and Warrant Purchase Agreement by and between OrthoLogic Corp. and PharmaBio Development, Inc. (2)	Exhibit 4.5 to the Company's Amendment No. 1 to Registration Statement on Form S-3 filed with the SEC on September 22, 2006 ("September 2006 S-3/A")

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4.5	Amended and Restated Class C Warrant Agreement dated February 24, 2006, and amended and restated as of June 30, 2006, related to the Common Stock and Warrant Purchase Agreement by and between OrthoLogic Corp. and PharmaBio Development, Inc.	Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007, filed with the SEC on May 7, 2007	
4.6	Amended and Restated Class D Warrant Agreement dated February 24, 2006, and amended and restated as of June 30, 2006, related to the Common Stock and Warrant Purchase Agreement by and between OrthoLogic Corp. and PharmaBio Development, Inc.		X
4.7	Rights Agreement, dated as of June 19, 2007, between OrthoLogic Corp. and the Bank of New York	Exhibit 4.1 to the June 25th 2007 8-K	
10.1	Form of Indemnification Agreement(**)	Exhibit 10.16 to the Company's January 1993 S-1	
10.2	1997 Stock Option Plan of the Company, as amended and approved by the stockholders (1)	Exhibit 4.3 to the Company's Registration Statement on Form S-8, filed with the SEC on March 2, 2005	
10.3	Single-tenant Lease dated June 12, 1997, by and between the Company and Chamberlain Development, L.L.C.	Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 1997	
10.4	Patent License Agreement between the Board of Regents of The University of Texas System through its component institution The University of Texas Medical Branch at Galveston and Chrysalis Biotechnology, Inc., dated April 27, 2004 and exhibits thereto (2)	Exhibit 10.1 to the Company's Amendment No. 1 to its Registration Statement on Form S-4, filed July 14, 2004	
10.5	Form of Incentive Stock Option Grant Letter for use in connection with the Company's 1997 Stock Option Plan (***)	Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 4, 2005	
10.6	Form of Non-qualified Stock Option Grant Letter for use in connection with the Company's 1997 Stock Option Plan (***)	Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 19, 2006	
10.7	Patent Assignment Agreement dated June 28, 2005, between the Company and the University of Texas	Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005, filed with the SEC on August 9, 2005 (the "June 2005 10-Q")	
10.8	Director Compensation Plan, effective June 10, 2005 (1)	Exhibit 10.2 to the June 2005 10-Q	
10.9	Letter of Stock Option Grant to Dr. James M. Pusey for 200,000 shares of the Company's common stock, dated March 3, 2005 (1)	Exhibit 10.3 to the March 4th, 2005 8-K	

10.10	Letter of Stock Option Grant to Dr. James M. Pusey for 300,000 shares of the Company's common stock, dated March 3, 2005 (1)	Exhibit 10.4 to the March 4th, 2005 8-K
10.11	Employment Agreement between the Company and Dana Shinbaum dated October 17, 2005 (1)	Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on October 27, 2005

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10.12	Employment Agreement dated January 10, 2006 between the Company and Les M. Taeger (1)	Exhibit 10.1 to the Company's Form 8-K filed with the SEC on January 11, 2006 (the "January 11th 8-K")
10.13	Intellectual Property, Confidentiality and Non-Competition Agreement between the Company and Les M. Taeger dated January 10, 2006 (1)	Exhibit 10.2 to the January 11th 8-K
10.14	Separation Agreement and Release dated April 5, 2006 by and between OrthoLogic Corp. and James M. Pusey (1)	Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on April 11, 2006
10.15	Common Stock and Warrant Purchase Agreement by and between OrthoLogic Corp. and PharmaBio Development, Inc., dated February 24, 2006.	Exhibit 10.1 to the Company's April 2006 S-3
10.16	Registration Rights Agreement by and between OrthoLogic Corp. and PharmaBio Development, Inc., dated February 24, 2006	Exhibit 10.2 to the Company's April 2006 S-3
10.17	Registration Rights Agreement by and between OrthoLogic Corp., AzERx, Inc., and Certain Shareholders, dated February 27, 2006	Exhibit 10.3 to the Company's April 2006 S-3
10.18	Amended and Restated License Agreement dated February 23, 2006 by and between OrthoLogic Corp. and Arizona Science Technology Enterprises, LLC	Exhibit 10.5 to the Company's Registration Statement on Form S-3 filed with the SEC on April 25, 2006
10.19	2005 Equity Incentive Plan (2005 Plan) (1)	Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on May 18, 2006
10.20	Form of Incentive Stock Option Grant Letters for Grants under the 2005 Plan (***)	Exhibit 10.1 to the Company's Report on Form 10-Q for the quarterly period ended June 30, 2006, filed on August 8, 2006 ("June 2006 10-Q")
10.21	Form of Non-Qualified Stock Options Grant Letter for Grants under the 2005 Plan (***)	Exhibit 10.2 to the Company's June 2006 10-Q
10.22	Form of Restricted Stock Grant Letters for Grants under the 2005 Plan	Exhibit 10.4 to the Company's Current Report on Form 8-K filed with the SEC on May 18, 2006
10.23	Amendment to Employment Agreement dated January 10, 2006 between OrthoLogic Corp. and Les Taeger (1)	Exhibit 10.3 to the Company's June 2006 10-Q
10.24	Employment Agreement between Randolph C. Steer, MD, Ph.D., President, and OrthoLogic Corp., effective May 12, 2006 (1)	Exhibit 10.7 to the Company's June 2006 10-Q
10.25	Management Service Agreement between Valley Venture III, Management LLC, John M. Holliman, III, Executive Chairman	Exhibit 10.8 to the Company's June 2006 10-Q

	and OrthoLogic Corp., effective May 12, 2006 (1)	
10.26	Amendment No.1 to Registration Rights Agreement dated June 30, 2006 by and between PharmaBio Development, Inc., and OrthoLogic Corp.	Exhibit 10.4 to the Company's September 2006 S-3/A
10.27	Separation Agreement and Release dated November 17, 2006 by and between OrthoLogic Corp., and James T. Ryaby, Ph.D. (1)	Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on November 24, 2006 ("November 24th 8-K")

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10.28	Consulting Agreement dated November 17, 2006 by and between James T. Ryaby, Ph.D., and OrthoLogic Corp. (1)	Exhibit 10.2 to the Company's November 24th 8-K	
10.29	Lease Agreement dated July 19, 2007, by and between the Company and Phoenix Investors #13, L.L.C.	Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on July 23, 2007	
10.30	Amendment #1 to Employment Agreement dated May 21, 2007, between Randolph C. Steer, MD, Ph.D., President, and OrthoLogic Corp.		X
10.31	Amendment #2 to Employment Agreement dated February 21, 2008, between Randolph C. Steer, MD, Ph.D., President, and OrthoLogic Corp.		X
16.1	Letter from Deloitte and Touche, LLP, to the SEC dated June 19, 2006	Exhibit 16.1 to the Company's Current Report on Form 8-K filed with the SEC on June 20, 2006	
21.1	List of subsidiaries		
23.1	Consent of independent registered public accounting firm.		X
23.2	Consent of independent registered public accounting firm.		X
31.1	Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.		X
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.		X
32.1	Certification of Principal Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (****)		

(1) Management contract or compensatory plan or arrangement.

(2) Portions of this agreement have been redacted and filed under confidential treatment request with the Securities and Exchange Commission.

* Upon the request of the Securities and Exchange Commission, OrthoLogic Corp. agrees to furnish supplementally a copy of any schedule to the Asset Purchase Agreement and Plan of Reorganization between the Company and Chrysalis Biotechnology, Inc., dated as of April 28, 2004, as amended and the Asset Purchase Agreement and Plan of Reorganization by and between the Company and AzERx, Inc., dated February 23, 2006.

** OrthoLogic has entered into separate indemnification agreements with each of its current directors and executive officers that differ only in party names and dates. Pursuant to the instructions accompanying Item 601 of Regulation S-K, OrthoLogic has filed the form of such indemnification agreement.

*** OrthoLogic from time to time issues stock options to its employees, officers and directors pursuant to its 1997 and 2005 Stock Option Plan, as amended. The incentive stock option grant letters and non-qualified stock

option grant letters that evidence these issuances differ only in such terms as the identity of the recipient, the grant date, the number of securities covered by the award, the price(s) at which the recipient may acquire the securities and the vesting schedule. Pursuant to the instructions accompanying Item 601 of Regulation S-K, OrthoLogic has filed the form of such incentive stock option grant letter and non-qualified stock option grant letter.

**** Furnished herewith.

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FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of OrthoLogic Corp.

We have audited the accompanying balance sheets of OrthoLogic Corp. (a development stage company) as of December 31, 2007 and 2006, and the related statements of operations, stockholders' equity, and cash flows for the years then ended, and for the period August 5, 2004 (inception of development stage) through December 31, 2007. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. The financial statements as of December 31, 2005, and for the period August 5, 2004 (inception) through December 31, 2005, were audited by other auditors whose report dated March 9, 2006 expressed an unqualified opinion on those statements. Our opinion on the statements of operations, stockholders' equity and cash flows for the period August 5, 2004 (inception) through December 31, 2007, insofar as it relates to the amounts for prior periods through December 31, 2005, is based solely on the report of other auditors.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of OrthoLogic Corp. (a development stage company) as of December 31, 2007 and 2006 and the results of its operations and its cash flows for the years then ended and the period from August 5, 2004 (inception of development stage) through December 31, 2007, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), OrthoLogic Corp's internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 3, 2008, expressed an unqualified opinion thereon.

As discussed in Note 1 to the financial statements, effective January 1, 2006, the Company adopted the provisions of Statement of Financial Accounting Standards No. 123 (revised 2004), Share-Based Payment.

/s/ Ernst & Young LLP

Phoenix, Arizona
March 3, 2008

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FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of OrthoLogic Corp.

We have audited the accompanying statements of operations, stockholders' equity, and cash flows of OrthoLogic Corp. (a development stage company) (the “Company”) for the year ended December 31, 2005, and for the period of August 5, 2004 (inception) through December 31, 2005 (the financial statements for the period from August 5, 2004 (inception) to December 31, 2005 are not presented separately herein). These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, such financial statements present fairly, in all material respects, the results of the Company’s operations, it’s changes in stockholders’ equity and its cash flows for the year ended December 31, 2005, and for the period of August 5, 2004 (inception) through December 31, 2005, in conformity with accounting principles generally accepted in the United States of America.

The Company is in the development stage at December 31, 2005. As discussed in Note 1 to the financial statements, the Company has not yet completed product development.

/s/ DELOITTE & TOUCHE LLP

Phoenix, Arizona
March 9, 2006

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ORTHOLOGIC CORP
(A Development Stage Company)
BALANCE SHEETS
(in thousands, except share and per share data)

	December 31, 2007	2006
ASSETS		
Current assets		
Cash and cash equivalents	$ 20,943	$ 18,047
Short-term investments	18,236	35,977
Prepaids and other current assets	906	1,950
Total current assets	40,085	55,974
Furniture and equipment, net	318	409
Long-term investments	21,459	16,206
Total assets	$ 61,862	$ 72,589
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 702	$ 1,621
Accrued compensation	658	584
Accrued clinical	1	133
Accrued severance and other restructuring costs	166	366
Other accrued liabilities	874	737
Total current liabilities	2,401	3,441
Stockholders' Equity		
Common Stock $.0005 par value; 100,000,000 shares authorized; 41,758,065 and 41,564,291 shares issued and outstanding	21	21
Additional paid-in capital	189,013	188,236
Accumulated deficit	(129,573)	(119,109)
Total stockholders' equity	59,461	69,148
Total liabilities and stockholders' equity	$ 61,862	$ 72,589

See notes to financial statements

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ORTHOLOGIC CORP.
(A Development Stage Company)
STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31,			As a Development Stage Company August 5, 2004 - December 31, 2007
	2007	2006	2005	
OPERATING EXPENSES				
General and administrative	$ 3,738	$ 6,558	$ 4,910	$ 17,084
Research and development	9,641	19,661	25,444	62,826
Purchased in-process research and development	-	8,471	-	34,311
Other gains	-	-	(250)	(375)
Total operating expenses	13,379	34,690	30,104	113,846
Interest and other income, net	(3,278)	(3,883)	(2,640)	(10,552)
Loss from continuing operations before taxes	10,101	30,807	27,464	103,294
Income tax expense (benefit)	-	1,106	(108)	356
Loss from continuing operations	10,101	31,913	27,356	103,650
Discontinued operations - net gain on the sale of the bone devicebusiness, net of taxes of $0, $0, $96, ($267), respectively	-	-	(154)	(2,202)
NET LOSS	$ 10,101	$ 31,913	$ 27,202	$ 101,448
Per Share Information:				
Net loss, basic and diluted	$ 0.24	$ 0.78	$ 0.72	
Basic and diluted shares outstanding	41,644	40,764	38,032	

See notes to financial statements

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ORTHOLOGIC CORP.
(A Development Stage Company)
STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock		Additional Paid in	Accumulated	
	Shares	Amount	Capital	Deficit	Total
Balance December 31, 2004	38,012	$ 19	$ 170,905	$ (59,994)	$ 110,930
Exercise of common stock options	113	-	288	-	288
Compensation earned on stock awards	-	-	162	-	162
Net loss	-	-	-	(27,202)	(27,202)
Balance December 31, 2005	38,125	19	171,355	(87,196)	84,178
Exercise of common stock options	670	-	2,962	-	2,962
Sales of common stock	1,263	1	3,375	-	3,376
Stock option compensation cost	-	-	2,150	-	2,150
Compensation earned on stock awards	151	-	631	-	631
Acquisition of AzERx	1,355	1	7,763	-	7,764
Net loss	-	-	-	(31,913)	(31,913)
Balance December 31, 2006	41,564	21	188,236	(119,109)	69,148
Adoption of FIN 48				(363)	(363)
Stock option compensation cost	-	-	534	-	534
Compensation earned on stock awards	194	-	243	-	243
Net loss	-	-	-	(10,101)	(10,101)
Balance December 31, 2007	41,758	$ 21	$ 189,013	$ (129,573)	$ 59,461

See notes to financial statements

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ORTHOLOGIC CORP.
(A Development Stage Company)
STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,			As a Development Stage Company August 5, 2004 - December 31, 2007
	2007	2006	2005	
OPERATING ACTIVITIES				
Net loss	$ (10,101)	$ (31,913)	$ (27,202)	$ (101,448)
Non Cash items:				
Deferred tax expense	-	1,106	-	770
Depreciation and amortization	169	2,833	392	3,434
Non-cash stock compensation	777	2,781	162	3,720
Gain on sale of bone device business	-	-	(250)	(2,298)
In-process research and development	-	8,471	-	34,311
Change in other operating items:				-
Prepaids and other current assets	1,044	(1,094)	424	803
Accounts payable	(919)	334	203	(269)
Accrued liabilities	(384)	(1,422)	(294)	(1,317)
Cash flows used in operating activities	(9,414)	(18,904)	(26,565)	(62,294)
INVESTING ACTIVITIES				
Expenditures for furniture and equipment, net	(178)	(196)	(268)	(693)
Proceeds from sale of assets	-	-	7,000	7,000
Cash paid for assets of AzERx/CBI	-	(390)	-	(4,058)
Cash paid for patent assignment rights	-	(250)	(400)	(650)
Purchases of investments	(51,395)	(56,509)	(48,823)	(197,289)
Maturities of investments	63,883	52,847	65,502	215,532
Cash flows provided by (used in) investing activities	12,310	(4,498)	23,011	19,842
FINANCING ACTIVITIES				
Net proceeds from stock option exercises	-	2,962	288	4,612
Net proceeds from sale of stock	-	3,376	-	3,376
Cash flows provided by financing activities	-	6,338	288	7,988
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,896	(17,064)	(3,266)	(34,464)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	18,047	35,111	38,377	55,407
CASH AND CASH EQUIVALENTS, END OF PERIOD	$ 20,943	$ 18,047	$ 35,111	$ 20,943
Supplemental Disclosure of Non-Cash Investing Activities				
AzERx / CBI Acquisitions				
Current assets acquired	$ -	$ -	$ -	$ 29
Patents acquired	-	-	-	2,142

Liabilities acquired, and accrued acquisition costs	-	(317)	-	(457)
Original investment reversal	-	-	-	(750)
In-process research and development acquired	-	8,471	-	34,311
Common stock issued for acquisitions	-	(7,764)	-	(31,217)
Cash paid for acquisitions	$ -	$ 390	$ -	$ 4,058

See notes to financial statements

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ORTHOLOGIC CORP.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 2007, 2006 and 2005

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of the business

OrthoLogic is a biotechnology company committed to developing a pipeline of novel peptides and other molecules aimed at helping patients with under-served conditions. We are focused on the development and commercialization of two product platforms: Chrysalin® (TP508) and AZX100.

Chrysalin (TP508), a novel synthetic 23-amino acid peptide, is believed to produce angiogenic and other tissue repair effects by activating or upregulating nitric oxide synthase (NOS) and the production of nitric oxide in endothelial cells, and if so, it may have potential therapeutic value in tissues and diseases exhibiting endothelial dysfunction. We have primarily investigated Chrysalin in two indications, fracture repair and diabetic foot ulcer healing and we are initiating study of other potential vascular indications. The Company owns exclusive worldwide rights to Chrysalin.

AZX100 is a novel synthetic pre-clinical 24-amino acid peptide and is believed to have smooth muscle relaxation and anti-fibrotic properties. AZX100 is currently being evaluated for medically and commercially significant applications, such as prevention of dermal scarring, pulmonary fibrosis, the treatment of asthma, and vascular intimal hyperplasia. We filed an IND for a dermal scarring indication in 2007 and plan to start a Phase 1 clinical trial in dermal scarring in early 2008. OrthoLogic has an exclusive worldwide license to AZX100.

We continue to explore other biopharmaceutical compounds that can complement our research activity internally and broaden our potential pipeline for successful products.

Company History

Prior to November 26, 2003, we developed, manufactured and marketed proprietary, technologically advanced orthopedic products designed to promote the healing of musculoskeletal bone and tissue, with particular emphasis on fracture healing and spine repair. Our product lines included bone growth stimulation and fracture fixation devices including the OL1000 product line, SpinaLogic® and OrthoFrame/Mayo, which we sometimes refer to as our “Bone Device Business.”

On November 26, 2003, we sold our Bone Device Business. Our principal business remains focused on tissue repair, although through biopharmaceutical approaches rather than through the use of medical devices.

On August 5, 2004, we purchased substantially all of the assets and intellectual property of Chrysalis Biotechnology, Inc. (“CBI”), including its exclusive worldwide license for Chrysalin for all medical indications. We became a development stage entity commensurate with the acquisition. Subsequently, our efforts were focused on research and development of our Chrysalin Product Platform, with the goal of commercializing our products.

On February 27, 2006, the Company purchased certain assets and assumed certain liabilities of AzERx, Inc. Under the terms of the transaction, OrthoLogic acquired an exclusive license for the core intellectual property relating to AZX100.

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Our development activities for the Chrysalin Product Platform and AZX100 represent a single operating segment as they share the same product development path and utilize the same Company resources. As a result, we have determined that it is appropriate to reflect our operations as one reportable segment. Through December 31, 2007, we have incurred $101 million in net losses as a development stage company.

In these notes, references to “we”, “our” and the “Company” refer to OrthoLogic Corp. References to our Bone Device Business refer to our former business line of bone growth stimulation and fracture fixation devices, including the OL1000 product line, SpinaLogic®, OrthoFrame® and OrthoFrame/Mayo.

Use of estimates. The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires that management make a number of assumptions and estimates that affect the reported amounts of assets, liabilities, and expenses in our financial statements and accompanying notes. Management bases its estimates on historical experience and various other assumptions believed to be reasonable. Although these estimates are based on management’s assumptions regarding current events and actions that may impact the Company in the future, actual results may differ from these estimates and assumptions.

The significant estimates include the Chrysalis Biotechnology, Inc. and AzERx purchase price allocations, valuation of intangibles, income taxes, contingencies, litigation, accrued clinical reserves and accounting for stock-based compensation.

Cash and cash equivalents. Cash and cash equivalents consist of cash on hand and cash deposited with financial institutions, including money market accounts, and investments purchased with a remaining maturity of three months or less when acquired.

Furniture and equipment. Furniture and equipment are stated at cost. Depreciation is calculated on a straight-line basis over the estimated useful lives of the various assets, which range from three to seven years. Leasehold improvements are amortized over the life of the asset or the period of the respective lease using the straight-line method, whichever is the shortest.

Patents. Patent costs relate to the acquisition of CBI and rights associated with the Chrysalin platform and the costs were being amortized over the estimated life of the patents, 6 – 17 years. On November 2, 2006, the Company announced that it has no immediate plans to re-enter clinical trials for Chrysalin-based product candidates and a strategic shift in its development approach to its Chrysalin product platform. The Company currently intends to pursue development partnering or licensing opportunities for its Chrysalin-based product candidates, a change from its previous development history of independently conducting human clinical trials necessary to advance its Chrysalin-based product candidates to market. SFAS No. 142 requires an impairment loss be recognized for an amortizable intangible asset whenever the net cash in-flow to be generated from an asset is less that it’s carrying cost. The Company was unable to determine the timing or amount of net cash in-flow to be generated from Chrysalin-based product candidates. Accordingly, due to this uncertainty, the Company recognized an impairment loss for the amount of unamortized Chrysalin product platform patent costs of $2,100,000 in 2006. The impairment loss is included in research and development expenses in the Statements of Operations in 2006. Subsequent to the recognition of the impairment loss, the Company incurred and expensed $250,000 in 2006 for payments made under existing agreements for additional patent rights. Patent amortization costs charged to research and development totaled $2,473,000 in 2006.

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Research and development. Research and development represents both costs incurred internally for research and development activities, as well as costs incurred to fund the research activities with which we have contracted and certain milestone payments regarding the continued clinical testing of Chrysalin and AZX100. All research and development costs are expensed when incurred.

Accrued Clinical. Accrued clinical represents the liability recorded on a per patient basis of the costs incurred for our human clinical trials. Total patient costs are based on the specified clinical trial protocol, recognized over the period of time service is provided to the patient. We have no active clinical trials at December 31, 2007.

Stock-based compensation. At December 31, 2005, we had two stock-based employee compensation plans described more fully in Note 8. Prior to January 1, 2006, we accounted for those plans under the recognition and measurement principles of Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations. Stock-based employee compensation cost was normally not recognized, as all options granted under our stock plans had an exercise price equal to the market value of the underlying common stock on the date of grant. For non-employees this expense is recognized as the service is provided in accordance with guidance in Emerging Issues Task force (EITF) Issue No. 96-18, Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring or in Conjunction with Selling Goods or Services.

Effective January 1, 2006, we adopted SFAS No. 123 (revised 2004), "Share-Based Payment", (SFAS 123(R)). SFAS 123(R) requires all share-based payments, including grants of stock options, restricted stock units and employee stock purchase rights, to be recognized in our financial statements based on their respective grant date fair values. Under this standard, the fair value of each employee stock option and employee stock purchase right is estimated on the date of grant using an option pricing model that meets certain requirements. We currently use the Black-Scholes option pricing model to estimate the fair value of our share-based payments. The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. We use the historical volatility adjusted for future expectations. The expected life of the stock options is based on historical data and future expectations. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our stock options and stock purchase rights. The dividend yield assumption is based on our history and expectation of dividend payouts. The fair value of our restricted stock units is based on the fair market value of our common stock on the date of grant. Stock-based compensation expense recognized in our financial statements in 2006 and thereafter is based on awards that are ultimately expected to vest. We recognize compensation cost for an award with only service conditions that has a graded vesting schedule on a straight line basis over the requisite service period as if the award was, in-substance, a multiple award. However, the amount of compensation cost recognized at any date must at least equal the portion of grant-date fair value of the award that is vested at that date. The amount of stock-based compensation expense in 2006 and thereafter will be reduced for estimated forfeitures. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We will evaluate the assumptions used to value stock awards on a quarterly basis. If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. The Company chose the modified-prospective transition alternatives in adopting SFAS 123(R). Under the modified-prospective transition method, compensation cost is recognized in financial statements issued subsequent to the date of adoption for all stock-based payments granted, modified or settled after the date of adoption, as well as for any unvested awards that were granted prior to the date of adoption. Because the Company previously adopted only the pro forma disclosure provisions of SFAS 123, we recognize compensation cost relating to the unvested portion of awards granted prior to January 1, 2006, the date of adoption, using the same estimate of the grant-date fair value and the same attribution method used to determine the pro forma disclosure under SFAS 123, except that a forfeiture rate will be estimated for all options, as required by SFAS 123(R).

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SFAS 123(R) requires the benefits associated with tax deductions that are realized in excess of recognized compensation cost to be reported as a financing cash flow rather than as an operating cash flow as previously required. Subsequent to the adoption of SFAS 123(R) on January 1, 2006, we have not recorded any excess tax benefit generated from option exercises, due to our net operating loss carryforwards, which cause such excess to be unrealized.

We have provided the required additional disclosures below which illustrates the effect on net loss and loss per share if the Company had applied the fair value recognition provisions of SFAS No. 123(R), to stock-based employee compensation (in thousands, except per share data) prior to January 1, 2006, the date of adoption of SFAS No. 123(R).

	Year Ended December 31, 2005
Net loss attributable to common stockholders:	
As reported	$ (27,202)
Stock based compensation included in net loss	162
Stock based compensation expense, net of tax	(932)
Pro forma	$ (27,972)
Basic and diluted net loss per share:	
As reported	$ (0.72)
Pro forma	$ (0.74)
Black Scholes model assumptions:	
Risk free interest rate	4.29%
Expected volatility	51%
Expected term (from vesting date)	2.6 Years
Dividend yield	0%
Estimated weighted-average fair value of options granted during the year	$ 3.07

The Company recorded stock option based compensation of $534,000 in 2007 and $2,150,000 in 2006. Net loss for the years ended December 31, 2007 and 2006 increased by $534,000 and $2,150,000, respectively, and loss per weighted average basic and diluted shares outstanding increased by $0.01 per share in 2007 and $0.05 per share in 2006 due to the adoption of SFAS 123(R) in 2006.

Loss per common share. Loss per common share is computed on the weighted average number of common or common and equivalent shares outstanding during each year. Basic earnings per share is computed as net loss divided by the weighted average number of common shares outstanding during the period. Diluted earnings per share reflects the potential dilution that could occur from common shares issuable through stock options, warrants, and non-vested restricted stock when the effect would be dilutive. At December 31, 2007, options and warrants to purchase 164,889 shares were excluded from the calculations of diluted earnings per share because they were anti-dilutive.

Discontinued operations. Under SFAS No. 144, “Accounting for the impairment and Disposal of Long-Lived Assets,” discontinued operations are reported if a component of the entity is held for sale or sold during the period. The Bone Device Business qualified as a component of the entity under the standard. Therefore, the gains on the sale of the Bone Device Business have been presented as discontinued operations in the financial statements.

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Income Taxes. Under SFAS No. 109, "Accounting for Income Taxes," income taxes are recorded based on current year amounts payable or refundable, as well as the consequences of events that give rise to deferred tax assets and liabilities. We base our estimate of current and deferred taxes on the tax laws and rates that are estimated to be in effect in the periods in which deferred tax liabilities or assets are expected to be settled or realized. Pursuant to SFAS No. 109, we have determined that the deferred tax assets at December 31, 2007 require a full valuation allowance given that it is not "more likely than not" that the assets will be recovered.

We adopted the provisions of Financial Accounting Standards Board ("FASB") Interpretation No. 48, "Accounting for Uncertainty in Income Taxes-an interpretation of FASB Statement No. 109" ("FIN 48"), on January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS No. 109, and prescribes a recognition threshold and measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

An evaluation was performed for the tax years ended December 31, 2003, 2004, 2005, 2006 and 2007, the tax years which remain subject to examination by major tax jurisdictions as of December 31, 2007. Based on our evaluation, we have concluded that, in accordance with FIN No. 48, the Company recognized a cumulative-effect adjustment of $363,000, increasing its liability for unrecognized tax benefits, interest, and penalties and increasing accumulated deficit. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

Balance at January 1, 2007	$ 1,001,000
Additions based on tax positions related to the current year	-
Additions for tax positions of prior years	-
Reductions for tax positions of prior years	-
Settlements	-
Reductions due to lapse in statute of limitations	-
Balance at December 31, 2007	$ 1,001,000

The gross amount of unrecognized tax benefits which, if ultimately recognized, could favorably affect the effective tax rate in a future period is approximately $683,000 as of January 1, 2007 and December 31, 2007.

We may, from time-to-time, be assessed interest or penalties by major tax jurisdictions, although any such assessments historically have been minimal and immaterial to our financial results. The Company recognizes accrued interest and penalties, if applicable, related to unrecognized tax benefits in income tax expense. During the year ended December 31, 2007, the Company did not recognize a material amount in interest and penalties.

New Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements, which clarifies the definition of fair value, establishes a framework for measuring fair value, and expands the disclosures about fair value measurements. SFAS No. 157 is effective for fiscal years beginning after November 15, 2007. The Company does not expect SFAS No. 157 to have a material impact on the Company's results of operations and financial condition.

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In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Statements and Financial Liabilities, which provides companies with an option to report selected financial assets and liabilities at fair value. SFAS No. 159 requires companies to provide additional information that will help investors and other users of financial statements to more easily understand the effect of the company's choice to use fair value on its earnings. It also requires entities to display the fair value of those assets and liabilities for which the company has chosen to use fair value on the face of the balance sheet. The new Statement does not eliminate disclosure requirements included in other accounting standards, including requirements for disclosures about fair value measurements included in FASB Statements No. 157, Fair Value Measurements, and No. 107, Disclosures about Fair Value of Financial Instruments. The Company does not expect SFAS No. 159 to have a material impact on the Company's results of operations and financial condition upon adoption.

In June 2007, the EITF reached a consensus on EITF 07-03, Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities. EITF 07-03 concludes that non-refundable advance payments for future research and development activities should be deferred and capitalized until the goods have been delivered or the related services have been performed. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment should be charged to expense. This consensus is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. Earlier adoption is not permitted. The effect of applying the consensus will be prospective for new contracts entered into on or after that date. The Company does not expect EITF 07-03 to have a material impact on the Company's results of operations and financial condition upon adoption.

In December 2007, the FASB issued SFAS No. 141R, Business Combinations, which replaces SFAS No. 141 and establishes principles and requirements for how an acquirer in a business combination recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any controlling interest. It also established principles and requirements for how an acquirer in a business combination recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase, and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. The Company does not expect SFAS No. 141R to have a material impact on the Company's results of operations and financial condition upon adoption.

2. ASSET ACQUISITION OF CHRYSALIS BIOTECHNOLOGY, INC

In January 1998, we acquired a minority equity investment (less than 10%) in Chrysalis BioTechnology, Inc. ("CBI") for $750,000. As part of the transaction, we were awarded a worldwide exclusive option to license the orthopedic applications of Chrysalin, a patented 23-amino acid synthetic peptide that had shown promise in accelerating the healing process.

On August 5, 2004, we purchased substantially all of the assets and intellectual property of CBI, including its exclusive worldwide license for Chrysalin for all medical indications for $2.5 million in cash, excluding acquisition costs, and $25.0 million in OrthoLogic common stock issued. We issued 3,462,124 shares of OrthoLogic common stock to CBI for this transaction based on the 10-day average closing price of $7.221. Pursuant to the terms of the definitive agreement, we must issue an additional number of shares of OrthoLogic common stock valued at $7.0 million upon the occurrence of certain trigger events, which include the sale or other transactions that result in a change of control of OrthoLogic or the acceptance by the U.S. Food and Drug Administration of a new drug application for a product based on Chrysalin, if either such trigger occurs within five years of closing. The largest portion of the purchase price and acquisition costs was expensed as in-process research and development of $25.8 million. The remainder of the purchase price was allocated to patents totaling $2.1 million, liabilities of $140,000 and other assets of $29,000.

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The initial $750,000 investment was recognized as part of the purchase price of the transaction. In return for the initial investment in CBI, we received 214,234 shares of OrthoLogic common stock as the prorated share of the purchase price, in accordance with the liquidation plan adopted by CBI at the time of the asset acquisition. The shares of OrthoLogic common stock, valued at $1.5 million, were accumulated with the other 41,800 shares of treasury stock previously outstanding and reverted back into the authorized but unissued common stock during the third quarter of 2004.

Pursuant to the Asset Purchase Agreement, fifteen percent of the shares of OrthoLogic common stock issued for the acquisition of CBI were placed in escrow for 18 months from the closing date to cover indemnifications for the representations and warranties made by CBI. No indemnification claims were made and in February 2006 the shares were released from escrow. We assumed the CBI lease for the location in Galveston, Texas, with approximately 4,400 sq. ft. of office space and laboratory space. We hired eight of the eleven full time CBI employees, and retained the President and founder of the company through a two-year consulting agreement.

The CBI acquisition has been accounted for using the purchase method of accounting whereby the total purchase price has been allocated to tangible and intangible assets acquired and liabilities assumed based on their estimated fair market values as of the acquisition date.

The components of the purchase price are as follows (in thousands):

Cash paid, including acquisition costs	$ 3,668
Common stock issued (less treasury stock received)	23,453
Original investment in CBI	750
Total purchase price	$ 27,871
The fair value of CBI net assets acquired:	
Patents	$ 2,142
In-process research and development	25,840
Furniture, equipment and other	29
Liabilities acquired	(140)
Fair value of the assets purchased	$ 27,871

3. ASSET SALE OF THE BONE DEVICE BUSINESS – DISCONTINUED OPERATIONS

On November 26, 2003, we completed the sale of the Bone Device Business assets and related liabilities (including the rights to produce and market the OL1000, OL1000 SC, SpinaLogic and OrthoFrame/Mayo) to dj Orthopedics, LLC. Pursuant to the asset purchase agreement, we sold substantially all of the assets of the Bone Device Business (other than our Medicare accounts receivable, which were $1.2 million in the aggregate), including substantially all of the related machinery, equipment, inventory, work in process, licenses, customer lists, intellectual property, certain agreements and contracts. dj Orthopedics paid $93.0 million in cash at closing and assumed substantially all of the Bone Device Business trade payables and other current liabilities less payables in an amount approximately equal to the amount of retained Medicare receivables. Upon the closing of the sale, we assigned and dj Orthopedics agreed to assume and perform the obligations outstanding on November 26, 2003, related to the operation of the Bone Device Business (including various liabilities related to the Company’s employees). The net gain on the sale of the Bone Device Business was $72.7 million, recognized in fiscal year 2003, at the time of the sale.

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Of the $93.0 million we received in the sale, $7.5 million was placed in an escrow account. The funds were divided into two accounts: $7.0 million from which dj Orthopedics, LLP was eligible for indemnity and breach of contract claims, if any, and $0.5 million from which a portion of the agreed upon incentive stay bonuses was paid by dj Orthopedics to former OrthoLogic executives on November 26, 2004, the first anniversary of the closing. The funds in the $7.0 million escrow account, in excess of the amount of any pending claims, was to be released to us on the second anniversary of the closing. The amount reserved for the potential liability at closing was $1.9 million related to the fair value of the representation and warranties in the Asset Purchase Agreement. We received updated information during the third quarter of 2004 that eliminated most of the potential exposure of the representations and warranties in the Asset Purchase Agreement. This decrease in the reserve combined with a tax benefit is shown as gain recognized on the sale of the Bone Device Business in discontinued operations in the statement of operations. The Company received the amounts in escrow during fiscal year 2005.

The sale of the Bone Device Business was considered an accelerating event for our stock-based compensation plans. Terminated employees' unvested options vested immediately upon the sale. Our directors and employees who were retained had 75% of their unvested options vest upon the sale, with the remainder vesting over a 12 month period or on their regular vesting period, whichever was earlier.

The sale of the Bone Device Business is accounted for as discontinued operations. The income from the divested business and related tax effects is summarized as discontinued operations in the statement of operations.

4. CPM DIVESTITURE IN 2001 AND RELATED GAINS

In 2001, we sold our continuous passive motion ("CPM") business to OrthoRehab, Inc. We received $12.0 million in cash, with OrthoRehab, Inc. assuming approximately $2.0 million in liabilities in connection with the sale of certain CPM related assets that we had recorded in our financial statements at a carrying value of approximately $20.7 million. We recorded a $6.9 million charge to write down the CPM assets to their fair value less direct costs of selling the assets. Under the CPM Asset Purchase Agreement, we were eligible to receive up to an additional $2.5 million of cash if certain objectives were achieved by OrthoRehab, Inc.

We settled litigation over the $2.5 million payment and other matters in April 2003. OrthoRehab, Inc. agreed to pay $1.2 million to settle the contingent payment due to us, and all outstanding claims between the two companies. All payments due had been received as of December 31, 2005.

The combination of settlement payments and additional collection of the divested receivables is included in the "Other gains" line item in the 2005 Statement of Operations.

5. INVESTMENTS AND FAIR VALUE DISCLOSURES

At December 31, 2007, investments consisted of municipal and corporate commercial paper or bonds and were classified as held-to-maturity securities. Such classification requires these securities to be reported at amortized cost unless they are deemed to be permanently impaired in value.

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A summary of the fair market value and unrealized gains and losses on these securities is as follows (in thousands):

Investments with maturities – Short-term	December 31	
	2007	2006
Amortized cost	$ 18,236	$ 35,977
Gross unrealized gain (loss)	117	(29)
Fair value	$ 18,353	$ 35,948

Investments with maturities – Long term	December 31	
	2007	2006
Amortized cost	$ 21,459	$ 16,206
Gross unrealized gain (loss)	610	(1)
Fair value	$ 22,069	$ 16,205

For our cash and cash equivalents and short-term investments, the carrying amount is assumed to be the fair market value because of the liquidity of these instruments. The carrying amount is assumed to be the fair value for other current assets, accounts payable and other accrued expenses because of their short maturity. Our long-term investments carry a market interest rate and the fair market value of the investments approximated the carrying values (as shown above) at December 31, 2007.

Our long-term investments are comprised primarily of U.S. Government obligations with the following maturities:

2009	$ 19,238,000
2010	2,221,000
	$ 21,459,000

6. FURNITURE AND EQUIPMENT

The components of furniture and equipment are as follows (in thousands):

	December 31,	
	2007	2006
Machinery and equipment	$ 1,258	$ 1,757
Furniture and fixtures	144	140
Leasehold improvements	-	1,411
	1,402	3,308
Less accumulated depreciation and amortization	(1,084)	(2,899)
Total	$ 318	$ 409

Depreciation expense for the years ended December 31, 2007, 2006, 2005, and for the period of August 5, 2004 through December 31, 2007 was $166,000, $370,000, $222,000, and $813,000, respectively.

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7. INCOME TAXES

The components of deferred income taxes at December 31 are as follows (in thousands):

	December 31,	
	2007	2006
Other accruals and reserves	$ 328	$ 20
Valuation allowance	(328)	(20)
Total current	-	-
NOL, AMT and general business credit carryforwards	38,357	32,873
Difference in basis of fixed assets	93	61
Other accruals and reserves	756	684
Difference in basis of intangibles	35	142
Valuation allowance	(39,241)	(33,760)
Total non current	-	-
Total deferred income taxes	$ -	$ -

	Years Ended December 31			As a Development Stage Company August 5, 2004 - December 31,
	2007	2006	2005	2007
The provisions (benefits) for income taxes are as follows (in thousands):				
Current	$ -	$ -	$ (108)	$ (750)
Deferred		1,106	-	1,106
Income tax provision (benefit)	$ -	$ 1,106	$ (108)	$ 356

SFAS No. 109 requires that a valuation allowance be established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. Changes in valuation allowances from period to period are included in the tax provision in the period of change. In determining whether a valuation allowance is required, we take into account all evidence with regard to the utilization of a deferred tax asset including past earnings history, expected future earnings, the character and jurisdiction of such earnings, unsettled circumstances that, if unfavorably resolved, would adversely affect utilization of a deferred tax asset, carryback and carryforward periods, and tax strategies that could potentially enhance the likelihood of realization of a deferred tax asset. Management has evaluated the available evidence about future taxable income and other possible sources of realization of deferred tax assets and has established a valuation allowance of approximately $39 million at December 31, 2007. The valuation allowance includes approximately $6.1 million for net operating loss carry forwards that relate to stock option compensation expense for income tax reporting purposes. The results of the Company’s Phase 3 Chrysalin fracture repair human clinical trial, which was received in 2006, resulted in a change in our planned clinical pathway and timeline for our Chrysalin fracture repair indication. This potential change, when factored with our current significant net operating loss carryovers and current period net loss, resulted in a revision of our estimate of the need for a valuation allowance for the previously recorded deferred tax asset related to a Alternative Minimum Tax credit carryover. Due to the uncertainty that the deferred tax asset will be realized, we recorded a valuation allowance for the full amount of the deferred tax asset ($1,106,000) in 2006. The valuation allowance reduces deferred tax assets to an amount that management believes will more likely

than not be realized.

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We have accumulated approximately $89 million in federal and $77 million in state net operating loss carryforwards ("NOLs") and approximately $4 million of general business and alternative minimum tax credit carryforwards. The federal NOLs expire from 2023 and the state NOL's expire from 2019 and their availability to offset future taxable income would be limited should a change in ownership, as defined in Section 382 of the Internal Revenue Code, occur.

The AzERx and CBI acquisitions were treated as tax free reorganizations under Internal Revenue Code Section 368 and therefore resulted in a carryover basis and no income tax benefit for the related acquisition costs, including in-process research and development costs.

A reconciliation of the difference between the provision (benefit) for income taxes and income taxes at the statutory U.S. federal income tax rate is as follows for the year ended December 31, and for the period of August 5, 2004 through December 31, 2007 (in thousands):

	Years Ended December 31,			As a Development Stage Company August 5, 2004 - December 31, 2007
	2007	2006	2005	
Income tax (benefit) as statutory rate	$ (3,434)	$ (10,474)	$ (9,336)	$ (35,117)
State income taxes (benefit)	(465)	(990)	(975)	(3,647)
Purchased in-process research and development	-	2,843	-	12,533
Research credits	(1,516)	-	(545)	(3,301)
Other	(291)	844	126	1,024
Change in valuation allowance	5,706	8,883	10,622	28,864
Net provision (benefit)	$ -	$ 1,106	$ (108)	$ 356

8. STOCKHOLDERS' EQUITY

The number of common shares reserved for issuance under the OrthoLogic 1987 option plan was 4,160,000 shares. This plan expired during October 1997. In May 1997, the stockholders adopted a new stock option plan (the "1997 Plan"). The 1997 Plan reserved for issuance 1,040,000 shares of Common Stock. Subsequent to its original adoption, the Board and Shareholders approved amendments to the 1997 Plan that increased the number of shares of common stock reserved for issuance to 4,190,000. The 1997 Plan expired in March 2007. In May 2006, the stockholders approved the 2005 Equity Incentive Plan (2005 Plan) and reserved 2,000,000 shares of our common stock for issuance. At December 31, 2007, 436,026 shares remained available to grant under the 2005 Plan. Two types of options may be granted under the Plans: options intended to qualify as incentive stock options under Section 422 of the Internal Revenue Code ("Code") and other options not specifically authorized or qualified for favorable income tax treatment by the Code. All eligible employees may receive more than one type of option. Any director or consultant who is not an employee of the Company shall be eligible to receive only nonqualified stock options under the Plans.

The Plans provide that in the event of a takeover or merger of the Company in which 100% of the equity of the Company is purchased or a sale of all or substantially all of OrthoLogic's assets (an "Accelerating Event"), 75% of all unvested employee options will vest and the remaining 25% vest over the following twelve month period. If an employee or holder of stock options is terminated as a result of or subsequent to the acquisition, 100% of that

individual’s stock option will vest immediately upon employment termination.

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Stock Options issued prior to December 31, 2005:

Unrecognized non-cash stock compensation expense related to unvested options outstanding as of December 31, 2005 was approximately $1 million (includes 328,124 shares valued at $500,000 unvested and cancelled on April 5, 2006 upon the resignation of James M. Pusey, MD). Because of the significant expected forfeiture rate (58%) caused by the options cancelled at the time of Dr. Pusey's resignation, the expected compensation cost for unvested options at December 31, 2005, was approximately $388,000. Compensation cost recorded for the years ended December 31, 2007 and 2006, for the options outstanding and unvested at December 31, 2005, was $18,000 and $203,000, respectively. At December 31, 2007 the remaining expected compensation cost related to unvested options outstanding at December 31, 2005, is approximately $13,000, which will be recognized over the remaining vesting period of approximately two years, with an estimated weighted average period of one year.

2006 Stock Options

On June 2, 2006, the Board of Directors granted options to purchase 800,000 shares of the Company's common stock, at an exercise price of $1.70 per share, to certain Company employees. These options vest pro rata over a two-year period.

On May 12, 2006, The Board of Directors granted each Director a fully vested option to purchase 25,000 shares of the Company's common stock at an exercise price of $1.75.

As part of their service agreements, on May 12, 2006, the Board of Directors granted options to John M. Holliman, III, Executive Chairman, and Randolph C. Steer, MD, Ph.D., President, to each purchase 200,000 shares of the Company's common stock, at an exercise price of $1.75 per share. The options vest pro rata over a two-year period.

During the three months ended March 31, 2006, the Board of Directors granted employees options to purchase 584,000 shares of the Company's common stock at exercise prices ranging from $4.73 to $5.39 per share. These options vest over a four-year period. On January 1, 2006, the Board of Directors also granted each Director a fully vested option to purchase 10,000 shares of the Company's common stock at an exercise price of $4.90 per share.

The Company used the Black-Scholes model with the following assumptions to determine the total fair market value of $3,555,000 for options to purchase 1,994,000 shares of the Company's common stock issued during the year ended December 31, 2006:

	Three months ended March 31, 2006	Three months ended June 30, 2006
Risk free interest rate	4.8%	5.2%
Volatility	73%	70%
Expected term from vesting	2.9 years	2.9 years
Dividend yield	0%	0%

Compensation cost recorded for the year ended December 31, 2006, for options issued in 2006, was $1,946,000. Using an estimated forfeiture rate of 12%, compensation cost recorded for the year ended December 31, 2007, for options issued in 2006, was $404,000. The options granted generally vest over a two to four-year period from the date of grant and, accordingly, the remaining expected unamortized cost at December 31, 2007 of approximately $254,000 will be amortized ratably over the periods ending December 31, 2009, with an estimated weighted average period of

seven months.

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2007 Stock Options

On January 1, 2007, the Board of Directors granted each Director a fully vested option to purchase 10,000 shares of the Company's common stock at an exercise price of $1.43. Additionally, during the three months ended March 31, 2007, the Company granted a fully vested option to purchase 13,889 shares of the Company's common stock to a consultant at an exercise price of $1.44 and an option to purchase 5,000 shares that vests over a four-year period, to an employee, at an exercise price of $1.45. On May 21, 2007, the Company granted an option to Dr. Steer to purchase 50,000 shares of the Company's common stock at $1.53, which vests pro-rata over a two-year period.

During the three months ended September 30, 2007, the Company granted options to purchase 86,000 shares of the Company's common stock to the members of its Scientific Advisory Board at an average exercise price of $1.43 per share. The options vested 25% on the date of grant, with the remaining options vesting pro-rata over a three year period. The cost of the options will be determined based upon the fair market value of the options by using the Black Scholes model, revalued at each Company reporting date until fully vested.

The Company used the Black-Scholes model with the following assumptions to determine the total fair value of $52,000 for options to purchase 78,889 shares of the Company's common stock issued during the three months ended March 31, 2007, the fair value of $33,000 for options to purchase 50,000 shares of the Company's common stock issued during the three months ended June 30, 2007, and the fair value of $87,000 for options to purchase 86,000 shares of the Company's common stock issued during the three months ended September 30, 2007.

	Three months ended March 31, 2007	Three months ended June 30, 2007	Three months ended September 30, 2007
Risk free interest rate	4.6%	4.87%	4.24%
Volatility	66%	61%	59%
Expected term from vesting	2.8 Years	2.8 Years	2.9 Years
Dividend yield	0%	0%	0%

Using an estimated forfeiture rate of 16%, compensation cost recorded for the year ended December 31, 2007, for options issued in 2007, was $114,000. The options granted, that did not vest on the grant date, vest over two to four year periods from the date of grant and, accordingly, the remaining unamortized cost at December 31, 2007 of approximately $32,000 will be amortized ratably over the period ending December 31, 2010, with an estimated weighted average period of one year.

2006 Awards of Shares of Common Stock

On May 12, 2006, the Shareholders of the Company approved the 2005 Equity Incentive Plan, which reserves an additional 2,000,000 shares of the Company's common stock for equity incentive awards. In conjunction with the approval, on May 12, 2006, the Board of Directors of the Company awarded 117,750 shares of restricted stock, which were fully vested at December 31, 2006. All of the restricted stock awards had been conditionally awarded in 2005, subject to shareholder approval of the 2005 Equity Incentive Plan. Of the restricted shares awarded, 62,750 shares related to annual awards to the Board of Directors, and 55,000 shares were performance based awards to officers of the Company. The total fair market value of the grants, determined using the closing price of the Company's common stock on the date of grant, was $206,000, which has been recognized as compensation cost in the year ended December 31, 2006.

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In connection with the employment of James M. Pusey, MD, President and CEO, in March 2005, the Company granted Dr. Pusey 200,000 shares of restricted stock, which vested if certain milestones were reached. In March 2006, 100,000 shares of restricted stock vested resulting in total compensation expense of $588,000, of which $426,000 was recorded in the quarter ended March 31, 2006 and $162,000 in fiscal year 2005, as general and administrative expenses. The compensation cost was determined using the closing price of the Company's common stock on March 3, 2005, the date of grant. The remaining unvested 100,000 shares of restricted stock were cancelled upon Dr. Pusey's resignation on April 5, 2006 of his employment with the Company.

2007 Awards of Shares of Common Stock

On January 1, 2007, the Board of Directors of the Company awarded 104,898 shares of restricted stock (17,843 shares to each director), which vest on January 1, 2008. The total fair value of the grants, determined using the closing price of the Company's common stock on the date of grant, was $150,000, which included $25,000 (17,843 shares) that were subsequently forfeited due to Mr. Casey's decision to not seek re-election to the Board of Directors on May 10, 2007. The net fair value of the awards of $125,000, has been recognized as compensation cost in the year ended December 31, 2007.

On May 10, 2007, the Board of Directors of the Company awarded total compensation of $115,000 to various executives, to be paid through the issuance of shares of the Company's common stock. The total number of shares of stock issued was 76,159.

Summary

Non-cash stock compensation cost for the year ended December 31, 2006 totaled $2,781,000. In the Statements of Operations for the year ended December 31, 2006, non-cash stock compensation expense of $1,946,000 was recorded as a general and administrative expense and $835,000 was recorded as a research and development expense.

Non-cash stock compensation cost for the year ended December 31, 2007, totaled $777,000. In the Statements of Operations for the year ended December 31, 2007, non-cash stock compensation expense of $513,000 was recorded as a general and administrative expense and $264,000 was recorded as research and development expense.

During the year ended December 31, 2006, options to purchase 670,400 shares of the Company's common stock were exercised resulting in the receipt by the Company of net cash proceeds of $2,962,000. The intrinsic value of options exercised in 2006 was $689,000. No options were exercised in the year ended December 31, 2007.

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A summary of option activity under our stock option plans for the years ended December 31, 2007, 2006 and 2005, is as follows:

	2007			2006		2005	
	Number of Options	Weighted average exercise price $	Weighted average remaining contractual term (years)	Number of Options	Weighted average exercise price $	Number of Options	Weighted average exercise price $
Options outstanding at the beginning of the year:	3,438,126	3.69		3,040,785	5.23	2,507,850	5.04
Granted	214,889	1.45		1,994,000	2.85	650,000	5.21
Exercised	-			(670,400)	4.42	(113,100)	2.54
Forfeited	(452,890)	4.47		(926,259)	6.57	(3,965)	5.81
Outstanding at end of year	3,200,125	3.43	6.54	3,438,126	3.69	3,040,785	5.17
Options exercisable at year-end	2,581,336	3.54	6.09	2,148,420	4.19	2,487,041	5.17
Options vested and expected to vest at December 31, 2007	2,942,863	3.44	6.34	3,379,249	3.70		

A summary of the status of the Company's unvested shares as of December 31, 2007 and 2006, and changes during the years ended December 31, 2007 and 2006, is presented below:

Unvested Shares	Number of Options	Weighted average Grant date Fair Value $
Unvested shares at December 31, 2005	200,000	5.88
Granted	117,750	1.75
Vested	(217,750)	3.65
Canceled/forfeited	(100,000)	5.88
Unvested shares at December 31, 2006	-	
Granted	181,057	1.46
Vested	(163,574)	1.47
Canceled/forfeited	(17,483)	1.43

Unvested shares at December 31, 2007	-

It is the Company's policy to issue options from stockholder approved incentive plans. However, if the options are issued as an inducement for an individual to join the Company, the Company may issue stock options outside of stockholder approved plans. The options granted under shareholder approved incentive plans have a ten-year term and vest over a two to four-year period of service. All options and stock purchase rights are granted with an exercise price equal to the current market value on the date of grant and, accordingly, options or stock purchase rights have no intrinsic value on the date of grant. Based on the closing market price of the Company's common stock at December 31, 2007 of $1.35, stock options exercisable or expected to vest at December 31, 2007, have no intrinsic value.

Warrants

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At December 31, 2007, the Company has warrants outstanding to purchase 46,706 shares of the Company's common stock with an exercise price of $6.39 per share which expire in February 2016, and warrants outstanding to purchase 117,423 shares of the Company's common stock with an exercise price of $1.91 per share which expire in July 2016.

Additionally, as described in Note 15, performance based warrants to purchase 240,000 shares of the Company's common stock with an exercise price of $1.91, which expire in February 2016, are outstanding but unvested at December 31, 2007. The total cost of the performance based warrants will be charged to expense over the period of performance. The costs will be determined based on the fair market value of the warrants determined by using the Black-Scholes model, revalued at each Company reporting date until fully vested. The fair market value of the milestone warrants using the Black-Scholes model, 58% volatility, 0% dividend yield, expected term of 8.2 years, and 3.4% interest rate was $187,000 at December 31, 2007. No costs were charged to expense at December 31, 2007 as it is not yet probable that any milestone warrants will vest.

9. COMMITMENTS

During 1998 through 2007, we were obligated under a non-cancelable operating lease agreement for a Tempe, Arizona office and research facility. Rent expense for the years ended December 31, 2007, 2006, 2005 and for the period of August 5, 2004 through December 31, 2007 was $999,000, $1,174,000, $1,135,000 and $3,779,000, respectively. We subleased portions of the Tempe facility to other tenants and approximately 45% of the Tempe facility was subleased through December 2007, which offset our lease expense. The Company recorded approximately $744,000, $745,000, $517,000, and $2,299,000 of sublease income for the years ended December 31, 2007, 2006, 2005, and for the period of August 5, 2004 through December 31, 2007, respectively.

On July 19, 2007, the Company entered into a new lease, which became effective upon the expiration of its previous lease, for 17,000 square feet of space in the same Tempe, Arizona facility. The new lease calls for monthly rental payments of $22,000, plus a proportionate share of building operating expenses and property taxes. The term of the new lease is sixty months from March 1, 2008, with an option to extend the lease for an additional twenty-four months with monthly rental payments set at $24,000, plus a proportionate share of building operating expenses and property taxes, during the extension period. The Company also has the right to terminate the new lease at the end of thirty-six months upon payment of an early termination fee of approximately $158,000. Total base rent for the initial sixty-month term is approximately $1,316,000, due approximately $263,000 per year for years 2008 through 2012 and $44,000 in year 2013.

10. LITIGATION

The Company, along with similar affected property owners or lessees, contested certain property taxes levied by Maricopa County on Salt River Project leasehold improvements. In September 2006, the Superior Court of Arizona ruled in favor of the Company and in November of 2006, Maricopa County informed the Company it did not intend to appeal the decision. The property tax bills subject to the court's decision, totaled $466,000 and covered tax years 2004 and 2005. The Company has also been billed $240,000 for tax year 2006 for the same taxes, of which $120,000 had been paid at December 31, 2006. The Company recorded a receivable from Maricopa County in the amount of $690,000 at December 31, 2006. The Company treated the recovery as a reduction of current period property tax expense of which $462,000 was recorded as a reduction of research and development expense, and $228,000 was recorded as a reduction of general and administrative expenses in the statement of operations for 2006. The Company received a refund of these taxes paid, plus interest at 10% on the amounts from the dates paid, in February 2007. During 2006, the Arizona State Legislature repealed the property tax which is the subject of the dispute.

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The Company is involved in various legal proceedings that arise in the ordinary course of business. In management's opinion, the ultimate resolution of these other legal proceedings are not likely to have a material adverse effect on the financial position, results of operations or cash flows of the Company.

11. 401(K) PLAN

We adopted a 401(k) plan (the "Plan") for our employees on July 1, 1993. We may make matching contributions to the Plan on behalf of all Plan participants, the amount of which is determined by the Board of Directors. We matched approximately $40,000, $48,000 and $34,000 in 2007, 2006, and 2005, respectively.

12. CONDENSED QUARTERLY RESULTS (UNAUDITED)

	First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
	2007	2006	2007	2006	2007	2006	2007	2006
	(in thousands, except for per share data)							
Operating expenses	$ 3,797	$ 17,243	$ 3,180	$ 6,303	$ 3,258	$ 7,067	$ 3,144	$ 4,077
Loss from continuing operations	$ 2,913	$ 16,481	$ 2,339	$ 6,542	$ 2,425	$ 5,817	$ 2,423	$ 3,073
Net loss	$ 2,913	$ 16,481	$ 2,339	$ 6,542	$ 2,425	$ 5,817	$ 2,423	$ 3,073
Net loss per share basic and diluted	$ 0.07	$ 0.42	$ 0.06	$ 0.16	$ 0.06	$ 0.14	$ 0.06	$ 0.07

In February of 2006, we acquired certain assets of AzERx resulting in a $8.4 million expense for in-process research and development. Cross footing the quarterly data may not result in the yearly totals due to rounding.

13. AUTHORIZED PREFERRED STOCK

We have 2,000,000 shares of authorized preferred stock, the terms of which may be fixed by our Board of Directors. We presently have no outstanding shares of preferred stock. While we have no present plans to issue any additional shares of preferred stock, our Board of Directors has the authority, without stockholder approval, to create and issue one or more series of such preferred stock and to determine the voting, dividend and other rights of holders of such preferred stock. The issuance of any of such series of preferred stock may have an adverse effect on the holders of common stock.

On June 19, 2007, the Company entered into a new Rights Agreement (the "New Rights Agreement") with the Bank of New York. In connection with the New Rights Agreement, we declared a dividend distribution of one Right for each outstanding share of our common stock to stockholders of record as of July 2, 2007 and designated 1,000,000 shares of preferred stock as Series A Preferred Stock. The Right, exercisable upon a Triggering Event as defined in the New Rights Agreement, allows the holder of each share of the Company's common stock to purchase 1/100 of a share of Series A Preferred Stock for $6.00. (Each 1/100 of a share of Series A Preferred Stock is convertible into $12 of the Company's common stock). The new rights replace similar rights that the Company issued under its previous Rights Agreement. The New Rights Agreement and the exercise of rights to purchase Series A Preferred Stock pursuant to the terms thereof may delay, defer or prevent a change in control because the terms of any issued Series A Preferred Stock would potentially prohibit our consummation of certain extraordinary corporate transactions without the

approval of the Board of Directors. In addition to the anti-takeover effects of the rights granted under the New Rights Agreement, the issuance of preferred stock, generally, could have a dilutive effect on our stockholders. The New Rights Agreement will expire June 19, 2010.

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14. ACQUISITION OF AZX100 - A NEW CLASS OF MOLECULES

On February 27, 2006, the Company purchased certain assets and assumed certain liabilities of AzERx, Inc. for $390,000 in cash and the issuance of 1,355,000 shares of the Company's common stock. Under the terms of the transaction, OrthoLogic acquired an exclusive license for the core intellectual property relating to AZX100, a 24-amino acid synthetic peptide.

The acquisition provides the Company with a new technology platform that diversifies the portfolio, and may provide more than one potential product. AZX100 is currently being evaluated for medically important and commercially significant applications such as the prevention or treatment of keloid scarring, pulmonary fibrosis, asthma and intimal hyperplasia. Preclinical and human in vitro studies have shown that this novel compound has the ability to relax smooth muscle in multiple tissue types.

The Company deemed the cost of the acquisition to be in-process research and development costs and, accordingly, charged the acquisition costs to research and development expense in the year ended December 31, 2006.

The costs associated with the acquisition were as follows:

Cash	$ 390,000
Fair market value of the Company's common stock issued (1)	7,764,000
Transaction costs	242,000
Liabilities assumed	75,000
In-process research and development costs	$ 8,471,000

(1) The fair market value of the Company's common stock ($5.73) was determined by reference to the closing market price of the Company's common stock for a reasonable period before and after February 24, 2006.

Valley Ventures III, L.P., an investment fund affiliated with the Executive Chairman of OrthoLogic, John M. Holliman, III, is a minority stockholder of AzERx. Mr. Holliman did not participate in the evaluation or approval of this transaction on behalf of OrthoLogic.

15. SALE OF SHARES OF COMPANY STOCK, ISSUANCE OF WARRANTS AND ENTRY INTO MASTER SERVICES AGREEMENT

On February 24, 2006, the Company entered into agreements with PharmaBio Development Inc., (dba NovaQuest), an affiliate of Quintiles, Inc., and Quintiles, Inc. (collectively "Quintiles"), which provided for the purchase of $2,000,000 of the Company's common stock, with the number of shares (359,279) determined by the 15-day average closing stock price prior to February 24, 2006 ($5.56). The transaction was completed (closed) on February 27, 2006. Additionally, under the terms of the agreements, at the election of the Company, Quintiles would have been required to purchase $1,500,000 of the Company's common stock on June 30, 2006, (Second Closing) with the number of shares determined by the 15-day average closing stock price prior to June 30, 2006, and would have been required to purchase $1,500,000 of the Company's common stock on September 29, 2006, with the number of shares determined by the 15-day average closing stock price prior to September 29, 2006 (Third Closing). Each stock purchase would include the issuance of fully vested warrants, exercisable for a ten-year period from the date of issuance, for an amount of shares equal to 13% of the shares purchased and with the exercise price set at 115% of the share price of each respective share purchase. (For the February 27, 2006 investment, warrants to purchase 46,706 shares at $6.39 were issued).

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On July 3, 2006, the Company closed the transaction contemplated by the agreements on the Second Closing Date. Pursuant to the agreements, on July 3, 2006, the Company issued a total of 903,252 shares of its common stock to Quintiles for a purchase price of $1,500,000 and issued a fully vested warrant to purchase 117,423 shares of the Company's common stock at $1.91 a share.

On September 14, 2006, the Company notified Quintiles that the Company would not offer for sale or issue to Quintiles the shares contemplated in the Third Closing. Accordingly, the Company has no further right to request Quintiles purchase shares of its common stock and Quintiles has no further obligation to purchase such shares under the agreements.

Summary of the stock sale transactions:

	February 27, 2006	July 3, 2006
Capital stock and additional paid-in capital	$ 1,913,000	$ 1,463,000
Accrued transaction costs	87,000	37,000
Cash proceeds	$ 2,000,000	$ 1,500,000

Accrued transaction costs represent direct costs of the transaction (legal and accounting fees) and are treated as reduction of additional paid-in capital.

As part of the transaction, the Company and Quintiles also entered into a Master Services Agreement whereby Quintiles agreed to become the Company's exclusive contract research organization service provider for the Company's Chrysalin Product Platform and to provide certain other technical assistance. The Company may enter into a variety of contracts over the five-year term of the agreement as determined by the development and clinical progress of its Chrysalin products. In return for this agreement, the Company has granted Quintiles the right of first negotiation to promote Chrysalin with a specialty sales force under a fee-for-service or risk-based structure. Additionally, the Company has granted Quintiles warrants to purchase up to 240,000 shares of the Company's common stock, with the exercise price set at 115% of the Second Closing stock price ($1.91). The shares will be exercisable for a ten-year period from February 27, 2006 and the warrants will vest based on the achievement of certain milestones (milestone warrants).

The total cost of the milestone warrants will be charged to expense over the period of performance. The costs will be determined based on the fair market value of the milestone warrants determined by using the Black-Scholes model, revalued at each Company reporting date until fully vested. The fair market value of the milestone warrants using the Black-Scholes model, 58% volatility, 0% dividend yield, expected term of 8.2 years, and 3.4% interest rate was $187,000 at December 31, 2007. No costs were charged to expense at December 31, 2007 as it is not yet probable that any milestone warrants will vest.