IMMUCELL CORP /DE/
Form 10KSB
March 26, 2008
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-KSB

x ANNUAL REPORT UNDER 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

001-12934

(Commission file number)

IMMUCELL CORPORATION

(Name of small business issuer in its charter)

Delaware	**01-0382980**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

56 Evergreen Drive, Portland, Maine **04103**
(Address of principal executive offices) **(Zip Code)**

Issuer s telephone number: (207) 878-2770

Securities registered under Section 12(b) of the Act:

None

Securities registered under Section 12(g) of the Act:

Common Stock, par value $0.10 per share

(Title of class)

Check whether the issuer is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. ¨

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will 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-KSB or any amendment to this Form 10-KSB. ¨

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 issuer s total revenues for the year ended December 31, 2007 were $6,069,187.

The aggregate market value of the voting and non-voting common equity held by non-affiliates at March 20, 2008 was approximately $6,651,000.

The number of shares of the Registrant s common stock outstanding at March 20, 2008 was 2,892,476.

Documents incorporated by reference: Portions of the Registrant s definitive Proxy Statement to be filed in connection with the 2008 Annual Meeting of Stockholders are incorporated by reference into Part III hereof.

Transitional Small Business Disclosure Format (check one): Yes ¨ No x

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PART I

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PART I

ITEM 1 DESCRIPTION OF BUSINESS

Summary

ImmuCell Corporation was founded in 1982 and completed an initial public offering of common stock in 1987. We are an animal health biotechnology company serving veterinarians and producers in the dairy and beef industries with innovative and proprietary products that improve animal health and productivity. After achieving approval from the U.S. Department of Agriculture (USDA) to sell **First Defense®** in 1991, we spent most of our efforts during the 1990 s developing human product applications of the underlying milk antibody technology. Beginning in 1999, we re-focused our efforts on **First Defense®** and other products for the dairy industry. With our shift in focus, we were able to record net income for each of the past nine years. This profitability, together with divestiture of certain non-core assets, funded our operations and improved our financial position, as demonstrated in the following table:

	As of December 31,		Increase	
	1998	2007	$	%
	(In thousands, except for percentages)			
Cash, cash equivalents and short-term investments	$ 1,539	$ 5,412	$ 3,873	252%
Net working capital	$ 1,866	$ 6,710	$ 4,844	260%
Total assets	$ 3,145	$ 10,412	$ 7,267	231%
Stockholders equity	$ 2,248	$ 10,057	$ 7,809	347%

This growth has been accomplished with only limited dilution to shareholders. We had approximately 2,429,000 shares of common stock outstanding as of December 31, 1998 in comparison to 2,892,000 as of December 31, 2007. There were approximately 480,000 and 446,000 shares of common stock reserved for issuance under stock options that were outstanding as of December 31, 1998 and 2007, respectively.

In 2000, we began the development of **Mast Out®**, our Nisin-based treatment for mastitis in lactating dairy cows. This product opportunity was licensed to Pfizer Animal Health, a division of Pfizer, Inc. from December 2004 to July 2007. During that time, Pfizer made significant advances in the areas of effectiveness, manufacturing and pharmacokinetics. Although Pfizer last year elected to discontinue its commercialization efforts for this product, we believe that the sales potential for **Mast Out®** justifies the costs of further development of the product. We therefore have decided to pursue this work on our own and expect to complete the pivotal efficacy study in 2008. Our planned increase in product development expenses will likely result in a net loss in 2008 and perhaps 2009. We believe that our current balance of cash and short-term investments is more than sufficient to fund our projected losses. At this point, we project a loss before income taxes for 2008 of approximately $500,000 to $750,000.

Over the past two years, we have initiated efforts to become compliant with current Good Manufacturing Practice (cGMP) regulations in our manufacturing operations. As part of this effort during 2007, we made a significant investment in facility modifications, new equipment and personnel to improve our processes and process documentation. Compliance with cGMP will require a sustained investment. We believe that cGMP standards will further increase product quality and compliance with current regulations applicable to certain of our products and may open access to foreign markets where such standards are imposed. At the same time, we are investigating ways to develop new products utilizing our **First Defense®** and Nisin technologies.

Animal Health Products for the Dairy and Beef Industries

Our lead product, **First Defense®**, which was approved by the USDA in 1991, is manufactured from cows colostrum using our proprietary vaccine and milk protein purification technologies. The target disease,

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calf scours , causes diarrhea and dehydration in newborn calves and often leads to serious sickness and even death. **First Defense®** is the only USDA-licensed, orally delivered scours preventive product on the market for calves with claims against two leading causes of scours (*E. coli* K99 and coronavirus). We are a leader in the scours prevention market with this product. Harsh winter weather and severe temperature fluctuations cause stress to calves, and calves under stress are more susceptible to scours. Sales of our product into the beef industry are highly seasonal because most beef calves are born between January and April each year.

First Defense® provides antibodies that newborn calves need but are unable to produce on their own. Newborn calves respond poorly, if at all, to vaccines, and they do not always get the antibodies they need from maternal colostrum. For vaccines to work, the immune system must be given time to develop a response. **First Defense®** provides immediate preformed immunity when calves need it most during the first few critical days of life. A single dose of **First Defense®** provides a guaranteed level of protection proven to reduce mortality and morbidity from two major causes of scours. Studies have shown that calves that scour are more susceptible to other diseases and under-perform calves that do not contract scours. **First Defense®** is convenient. A calf needs to receive only one bolus of **First Defense®** within the first twelve hours after birth. The product is stored at room temperature and no mixing is required before it is given to the calf. There is no required slaughter withdrawal period for calves that are given **First Defense®**.

We also sell three products designed to aid in the management of mastitis (inflammation of the mammary gland) caused by bacterial infections. Mastitis is estimated to cost U.S. dairy producers approximately $1.7 to $2 billion dollars per year. These losses include the cost of treatment products, reduced milk production, discarded milk and lost cows.

In 1999, we acquired **Wipe Out® Dairy Wipes**, which is our second leading source of product sales, from Nutrition 21, Inc. That transaction included the purchase of certain equipment, trademarks and a license of intellectual property, including several issued patents, covering the product and rights to develop skin and environmental sanitizing applications of the Nisin technology. **Wipe Out® Dairy Wipes** consist of pre-moistened, biodegradable towelettes that are impregnated with Nisin to prepare the teat area of a cow in advance of milking. Nisin is an antibacterial peptide that has been demonstrated in clinical studies to be an effective aid in the reduction of mastitis-causing organisms in dairy cows. Milking regulations require that the teat area of cows be prepared for each milking. Some dairy producers wash their cows as they approach the milking parlor. Other producers use a variety of methods including dips and paper or cloth towels. Our wipes are made from a non-woven fabric strong enough to allow for a vigorous cleaning but still biodegradable for disposal with the manure waste. The wiping process can also help promote milk letdown.

In 2000, we acquired **MASTiK®, Mastitis Antibiotic Susceptibility Test Kit**. Once mastitis is detected, there are different treatment options. **MASTiK®** helps veterinarians and producers quickly select the antibiotic most likely to be effective in the treatment of individual cases of mastitis. **MASTiK®** can usually help make the treatment selection in less than one day, which is faster than other commonly used antibiotic susceptibility tests. Typically, producers will treat mastitis with whatever antibiotics they have on hand while they send samples to a laboratory and wait several days for susceptibility test results to arrive. **MASTiK®** allows producers to begin treatment sooner with an antibiotic that is more likely to be effective.

In 2001, we began to offer our own, internally developed **California Mastitis Test (CMT)**. **CMT** can be used for bulk tank as well as individual cow sample monitoring and can be used to determine which quarter of the udder is mastitic. This test can be performed at cow-side for early detection of mastitis. **CMT** products are also made by other manufacturers and are readily available to the dairy producer. Our product is priced at a discount to the competitive products that were already on the market when we initiated commercial sales.

In 1987, we obtained approval from the USDA to sell **rjt** (Rapid Johne s Test). This test can rapidly identify cattle with symptomatic Johne s Disease in a herd with 100% specificity and greater than 85% sensitivity. Before sales can be initiated in any state, our USDA approval is subject to the further approval of each state veterinarian.

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Product Development

Beginning in 1999, we shifted the primary focus of our product development efforts to products for the dairy and beef industries. This strategy has been maintained through 2007 and is expected to continue. We spent approximately $1,270,000, $966,000 and $1,579,000 on product development activities during the years ended December 31, 2005, 2006 and 2007, respectively. These expenses included approximately $293,000, $220,000 and $439,000 in non-cash amortization expenses during the years ended December 31, 2005, 2006 and 2007, respectively.

In April 2000, we acquired an exclusive license from Nutrition 21, Inc. to develop and market Nisin-based products for animal health applications, which allowed us to initiate the development of **Mast Out®**. In November 2004, we paid Nutrition 21 approximately $965,000 to buy out this royalty and milestone-based license to Nisin, thereby acquiring control of the animal health applications of Nisin. Nisin, the same active ingredient contained in **Wipe Out® Dairy Wipes**, is an antibacterial peptide that is commonly used as a preservative in dairy food products. Nisin is known to have activity against most gram positive and some gram negative bacteria. **Mast Out®**, an intramammary infusion product containing Nisin, is being developed as an alternative to traditional antibiotics used in the treatment of mastitis in lactating dairy cows. The use of antibiotics in food-producing animals may be a contributing factor to the rising human public health problem of bacterial drug resistance. **Mast Out®** could potentially reduce the use of traditional antibiotics in the treatment of mastitis.

Traditional antibiotic products currently on the market for use in the treatment of mastitis are sold subject to a requirement to discard milk from treated cows during the course of and for a period following antibiotic treatment (the milk discard requirement). Currently, it is common practice to treat only clinical cases (cows producing abnormal milk) since that milk already is unsuitable for commercial sale. Because milk from cows with subclinical mastitis (cows with infected udders but still producing normal milk) can be sold, dairy producers generally do not treat subclinical mastitis in order to avoid the milk discard requirement. The safety profile of Nisin and its long history as a food preservative may allow for the sale of **Mast Out®** in the U.S. without a milk discard requirement, which would be a significant competitive advantage. No other intramammary mastitis treatment product has such a zero discard claim. Without the milk discard requirement, we believe **Mast Out®** could expand the subclinical mastitis treatment market niche. Regulations in the European Union will likely require that **Mast Out®** be sold subject to a milk discard requirement in that territory.

Commercial introduction of **Mast Out®** in the United States is subject to approval by the U.S. Food and Drug Administration, Center for Veterinary Medicine (FDA), which approval cannot be assured. Demonstration of effectiveness in a pivotal study and the approval of several additional Technical Sections under the FDA s phased review of a New Animal Drug Application (NADA) are required before any U.S. product sales would be allowed. Included among the additional Technical Sections required for NADA final approval are Chemistry, Manufacturing and Controls, Target Animal Safety, Human Food Safety and several administrative requirements. The Human Food Safety data will determine the milk discard period. The Human Food Safety Technical Section includes several subsections such as toxicology (which is complete), residue chemistry (which is under FDA review), total metabolism (which is under FDA review), effects of drug residues in food on human intestinal microbiology (which is in progress), effects on bacteria of human health concern or antimicrobial resistance (which submission is being prepared) all must be completed before a Technical Section Complete letter can be issued by the FDA. Toxicology studies establish an Acceptable Daily Intake (ADI) level for humans, and the toxicological ADI for Nisin supports a zero milk and meat withhold claim. These studies are similar to the studies that affirmed the Generally Regarded As Safe (GRAS) status of Nisin for use as a food preservative. Commercial-scale manufacturing of **Mast Out®** will also need to comply with current Good Manufacturing Practice (cGMP) regulations and will be subject to FDA approval and inspection. Foreign regulatory approvals will be required for sales in key markets outside of the United States and will involve some similar and some different requirements.

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In January 2004, we achieved positive results from an experimental field trial of **Mast Out®** in 139 cows with subclinical mastitis. The placebo-controlled, blinded, multi-farm study was conducted in collaboration with researchers at Cornell University. **Mast Out®** demonstrated a statistically significant overall cure rate in two separate dosage groups as compared to the placebo group. The currently proposed treatment regimen (three doses at three consecutive milkings) demonstrated a 58% efficacy rate in eliminating infection in lactating cows with culture-confirmed mastitis (compared to a placebo cure rate of 10%). This efficacy rate represents a blended average of results from cows with mastitis caused by several different pathogens. For example, **Mast Out®** achieved a statistically significant 100% efficacy rate in *Streptococcus agalactiae* cases (compared to a placebo cure rate of 25%), where antibiotics are commonly used effectively, and a statistically significant 28% efficacy rate in *Staphylococcus aureus* cases (compared to a placebo cure rate of 0%), where antibiotics are often not effective.

In December 2004, we entered into a product development and marketing agreement with Pfizer Animal Health, a division of Pfizer, Inc. covering **Mast Out®**. Under that agreement (as later amended and supplemented), we received $2,375,000 in payments from Pfizer. During 2005, Pfizer completed a study further supporting the effectiveness of **Mast Out®** in cows with subclinical mastitis. During 2006, Pfizer made other significant progress in the areas of effectiveness, manufacturing and pharmacokinetics. In July 2007, we received notice from Pfizer that it had elected to terminate the product development and marketing agreement. In accordance with the terms of such voluntary termination, Pfizer has:

- delivered to us all pre-clinical and clinical data and information developed by or for Pfizer in relation to **Mast Out®**,
- delivered to us copies of all files and data relating to the product development of **Mast Out®**,
- transferred to us all rights of Pfizer in governmental or regulatory filings, rights, and approvals relating to **Mast Out®**, and
- delivered to us all stocks of Nisin and Nisin producing cultures.

In connection with the termination, Pfizer also is obligated to license back to us (on a perpetual, royalty-free, non-sublicensable, non-exclusive basis) all Nisin-related technology developed by or for Pfizer during the term of the agreement. We do not anticipate that any such license will be necessary.

We believe that Pfizer s decision to terminate the product development and marketing agreement was not based on any unanticipated efficacy or regulatory issues. Rather, we believe Pfizer s decision was primarily market driven, largely relating to concerns that the use of **Mast Out®** may require specific treatment restrictions at the herd level, when used to treat subclinical mastitis with no milk discard. Due to its antibacterial nature, Nisin in bulk tank milk could interfere with the manufacture of certain (but not all) cultured milk products (some kinds of cheese and yogurt), if a high enough percentage of animals from a herd is treated at any one time. We believe that this risk could be eliminated by following a herd-level treatment guideline, currently estimated at approximately 2% of the herd on **Mast Out®** treatment in any given week. This guideline would require the subclinically mastitic cows in a herd to be treated over a period of weeks rather than all at once, in order to ensure that Nisin levels in bulk tank milk remain below levels that could affect the susceptible starter cultures. Milk that is sold exclusively for fluid milk products would not be subject to this restriction. We believe that the benefits of using **Mast Out®** would outweigh the management costs associated with implementing this treatment guideline. Over time and with market acceptance of **Mast Out®**, Nisin-resistant starter cultures could be developed using starter development and improvement programs that are common in the cheese industry for development of desirable culture characteristics such as phage-resistance and flavor development. These activities could result in relaxation or elimination of the herd-level treatment guidance.

Our decision to continue the product development effort reflects our belief that **Mast Out®** is approvable by the FDA without a milk discard requirement for sale in the U.S. We believe that such a product would have significant sales potential in the U.S. dairy market. We believe we are positioned to avoid any

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significant delay in the product development timeline for **Mast Out®**, which estimates submission of the administrative New Animal Drug Application (NADA) to the FDA by the end of 2009 unless we encounter an unanticipated number of submission-review cycles with the FDA. We are using Active Pharmaceutical Ingredient (API) produced during the term of the product development and marketing agreement for the pivotal efficacy trial that we plan to complete during 2008. In early 2008, registration batches of **Mast Out®** drug product are being produced to fulfill the pivotal regulatory requirements of effectiveness, target animal safety, and stability studies. The pivotal effectiveness study will likely enroll several hundred cows covering 5-10 locations in the major dairy sheds across the U.S.

We have made no determination of the cost or location of the commercial manufacturing facilities at this time. We are examining several options for API manufacture including contract manufacture, purchase and renovation of existing facilities or manufacturing the API under a joint venture or partnership. We have contracted with consultants to evaluate these strategic options. A commercial manufacturing relationship currently exists with an FDA-approved drug product manufacturer to formulate the API into drug product, conduct sterile-fill of syringes and perform final packaging.

We are actively exploring further improvements, extensions or additions to our current product line. For example, we are investigating the potential to prevent scours in calves caused by pathogens in addition to *E. coli* K99 and coronavirus. In connection with that effort, during the second quarter of 2006 we obtained an option to an exclusive license from Baylor College of Medicine covering certain rotavirus vaccine technology. Additionally, during the second quarter of 2007, we acquired an option to an exclusive license from Ohio State University covering certain rotavirus technology.

We are investing in the process improvements, facility modifications, new equipment, staffing changes and increased documentation required to become compliant with cGMP regulations across our entire product line. We expect that the implementation of these increased standards will result in improved overall quality and consistency in our manufacturing operations. We substantially completed certain related facility renovations and new equipment purchases during the second quarter of 2007. It is our objective to have implemented the process improvements and enhanced process documentation necessary to comply with cGMP regulations by the end of 2008.

We believe that market opportunities for growth of **First Defense®** sales exist in foreign territories. Regulatory authorities in some foreign territories may require that our manufacturing operations be compliant with cGMP standards. We are working with in-country consultants in key markets to help us through the process of seeking foreign regulatory approvals. Because of import restrictions, in-country production may be required to gain regulatory approval to sell **First Defense®** in Australia and New Zealand. In March 2008, we entered into a license agreement with Anadis, Ltd. of Australia. Under this agreement, we gained access to relevant production technology and capabilities of Anadis in Australia. We are obligated to pay Anadis a royalty on any sales of **First Defense®** manufactured in Australia in collaboration with Anadis.

There may be additional animal disease indications for Nisin that we decide to pursue using pharmaceutical-grade Nisin produced under cGMP. During 2006, we completed a collaborative study of Nisin susceptibility in methicillin-resistant canine staphylococcal isolates with investigators at University of Pennsylvania School of Veterinary Medicine. One hundred isolates of methicillin-resistant canine *Staphylococcus aureus* (MRSA), *intermedius* and *schleiferi* were tested and found to be highly susceptible to Nisin s antibacterial activity. These data were presented at the 2007 North American Veterinary Dermatology Forum in Kauai, Hawaii. During the third quarter of 2007, we initiated a clinical feasibility study in collaboration with the University of Tennessee to evaluate the effectiveness of Nisin impregnated wipes used to treat skin infections in dogs. We expect to complete this trial during the second quarter of 2008. Our objective is to use the data generated from these studies to determine if further product development is warranted.

While we continue to pursue internally funded product development programs, we also remain interested in acquiring new products and technologies that fit with our sales focus on the dairy and beef

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industries. We maintain relationships with several scientific collaborators who have particular expertise in the areas of strategic interest to us. We also sometimes hire outside consultants to assist us with our development work depending upon staff availability, the technical skills required, the nature of the particular project and other considerations. As additional opportunities to commercialize our technology, or technology that we can effectively acquire rights to, become apparent, we may begin new product development projects. All of our employees are required to execute non-disclosure, non-compete and invention assignment agreements intended to protect our rights in our proprietary products.

Sales and Markets

The manner in which we sell and distribute our products depends, in large measure, upon the nature of the particular product, its intended users and the country in which it is sold. The distribution channel selected is intended to address the particular characteristics of the marketplace for a given product. **First Defense®** is sold primarily through major veterinarian distributors. We primarily sell **Wipe Out® Dairy Wipes** directly to dairy producers. **MASTiK®** and **CMT** are sold directly to dairy producers as well as to distributors and bovine veterinarians. Sales of **rjt** are made principally to state veterinary laboratories. Selling expenses amounted to 10%, 11% and 11% of product sales in the years ended December 31, 2005, 2006 and 2007, respectively. Our budget guideline has been to invest less than 15% of product sales in selling expenses. This ratio could increase above 15% as we approach a market launch of **Mast Out®**.

First Defense® is generally sold through large, financially strong distributors, resulting in minimal bad debt. We provide for a 50% account credit on expired **First Defense®** product, which has a two-year shelf life resulting in an immaterial amount of returns. **Wipe Out® Dairy Wipes** are generally sold directly to dairy producers, but we have experienced only a minimal problem with uncollectible accounts receivable. We purchase an insignificant amount of promotional merchandise (such as hats, shirts, jackets, pens, note pads, coffee cups and other items) that advertises our products. This merchandise is given to certain customers because we believe it enhances brand recognition. There is some general correlation between customer purchase volume and the amount of merchandise received, but not all customers receive merchandise, and there is no contractual obligation relating the distribution of this merchandise to the purchase of our products.

Foreign product sales represented approximately 17%, 15% and 21% of our total product sales for the years ended December 31, 2005, 2006 and 2007, respectively. The majority of these foreign sales were to Canada. We currently price our products in U.S. dollars. An increase in the value of the dollar in any foreign country in which we sell products may have the effect of increasing the local price of such products, thereby leading to a reduction in demand. Conversely, to the extent that the value of the dollar may decline with respect to a foreign currency, our competitive position may be enhanced.

While we continue our efforts to grow sales of **First Defense®** in North America, we believe that market opportunities for larger growth exist in foreign territories. There are estimated to be approximately 23,000,000 dairy cows in the European Union, another 6,000,000 in Australia and New Zealand and another 1,000,000 in Japan, in comparison to approximately 9,000,000 in the U.S. and 1,000,000 in Canada, without considering potential sales in the beef markets. Industry practices, economic conditions and cause of disease may differ in these foreign markets from what we experience in the U.S. We introduced **First Defense®** into South Korea in 2005 and Japan in 2007 through collaborations with in-country distributors.

We estimate that the U.S. market for the use of antibiotics to treat clinical mastitis in lactating cows is approximately $20,000,000 to $40,000,000 per year and that a similar market opportunity also exists outside the U.S. Because milk from cows treated with traditional antibiotics must be discarded for a period of time during and after treatment due to concerns about antibiotic residue in the milk, currently it is not common practice to treat subclinical mastitis. If **Mast Out®** is approved by the U.S. Food and Drug Administration as the first treatment for mastitis without a milk discard requirement, we believe it could expand the market for the treatment of subclinical mastitis and could compete effectively against the traditional antibiotic products currently on the

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market, which are all sold subject to a milk discard. Currently, the loss of milk revenue caused by a milk discard requirement is a disincentive to the treatment of subclinical mastitis. The ability to treat without a milk discard could dramatically change the way mastitis is managed in a herd. A market may also exist for a dry cow application of the product, which would be subject to a separate regulatory approval.

It is difficult to evaluate the potential size of an as-yet undeveloped subclinical mastitis treatment market. In 2007, we contracted with Fountain Agricounsel, LLC, a management consulting company and strategic advisor in agribusiness, to conduct a market study consisting of a survey of opinion leaders in the mastitis field as well as an economic analysis of the mastitis treatment market and competitive profiling of current mastitis treatment products. Fountain Agricounsel estimated that a product like **Mast Out®** with a no milk discard claim has the potential to reach $10,000,000 in annual product sales in the U.S. Actual sales could be higher or lower, but this product has the potential to be a leading intramammary infusion product in the mastitis treatment market. Fountain Agricounsel also noted the potential appeal of this product with a no milk discard claim in the organic market. Their report has helped form the basis of our judgment on whether to continue with development of this product.

Competition

Our competition in the animal health market includes other biotechnology companies and major animal health companies. Many of these competitors have substantially greater financial, marketing, manufacturing and human resources and more extensive product development capabilities than we do. Many are capable of developing technologies and/or products that are superior to ours, or may be more successful in developing production capability or in obtaining required regulatory approvals.

We believe that **First Defense®** offers two significant competitive advantages over other oral antibody products on the market: 1) its capsule form does not require refrigeration and provides ease of administration and 2) competitive products currently on the market provide protection only against one leading cause of calf scours (*E. coli*), while **First Defense®** provides this protection and additional protection against coronavirus, another leading cause of the disease. In addition to direct competition from oral antibody products, **First Defense®** also competes for market share against vaccine products that are used to increase the mother cow s production of antibodies that can then be transferred through the mother s milk to the calf and against vaccine products that are administered to the newborn calf. The immediate and preformed immunity that **First Defense®** provides to the calf is a competitive advantage over the vaccine products.

There are many products on the market that may be used in place of **Wipe Out® Dairy Wipes**. These products include teat dips, teat sprays and other disposable and washable towel products offered by several different companies. Competitive advantages of **Wipe Out® Dairy Wipes** include the following: 1) they are convenient to use, 2) they do not irritate the udder, 3) they do not adulterate the milk and 4) they are biodegradable.

We would consider any company that sells an antibiotic to treat mastitis, such as Pfizer Animal Health, Schering Plough Animal Health and Wyeth (Fort Dodge Animal Health), to be potential competitors for **Mast Out®**.

We may not be aware of competition that we face from other companies. Our competitive position will be highly influenced by our ability to attract and retain key scientific and managerial personnel, to develop proprietary technologies and products, to obtain USDA or FDA approval for new products and to continue to profitably sell our current products. We currently compete on the basis of product performance, price and distribution capability. We continue to monitor our network of independent distributors to maintain our competitive position.

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Patents, Proprietary Information and Trademarks

In connection with the December 1999 acquisition of **Wipe Out® Dairy Wipes** from Nutrition 21, we acquired a license to several patents covering the use of Nisin in antibacterial wipes as well as certain proprietary know-how used in the production of Nisin. In April 2000, we acquired from Nutrition 21 an additional license to several patents covering the use of Nisin in specific antibacterial formulations in the veterinary field of use. In November 2004, we bought out certain future milestone and royalty obligations under this license, which principally resulted in a fully paid, perpetual license related to the animal health applications of Nisin. In September 2004, we were issued U.S. Patent No. 6,794,181 entitled Method of Purifying Lantibiotics covering a key step in the manufacturing process for pharmaceutical-grade Nisin.

In conjunction with the December 2000 acquisition of **MASTiK®**, we acquired the related U.S. Patent No. 5,026,638 entitled Antibiotic Sensitivity Test for Pathogenic Organisms Present in Mastitic Milk covering the test procedure.

In 2000, we were issued U.S. Patent No. 6,074,689 entitled Colonic Delivery of Protein or Peptide Compositions covering the method of formulation that can be used to deliver **DiffGAM** and other proteins to the colon. In 1999, we acquired an exclusive license for pharmaceutical applications to U.S. Patent No. 5,773,000 entitled Therapeutic Treatment of *Clostridium difficile* Associated Diseases from GalaGen, Inc. In October 2002, we acquired ownership of this patent from the court administering the bankruptcy proceedings of GalaGen. These patents are included in the license we granted to Anadis, Ltd. of Australia on March 2008.

In the future, we may file additional patent applications for certain products under development. There can be no assurance that patents will be issued with respect to any pending or future applications.

In some cases, we have chosen (and may choose in the future) not to seek patent protection for certain products or processes. Instead, we have sought (and may seek in the future) to maintain the confidentiality of any relevant proprietary technology through contractual agreements. Reliance upon trade secret, rather than patent protection, may cause us to be vulnerable to competitors who successfully replicate our manufacturing techniques and processes. Additionally, there can be no assurance that others may not independently develop similar trade secrets or technology or obtain access to our unpatented trade secrets or proprietary technology.

Other companies may have filed patent applications and may have been issued patents involving products or technologies potentially useful to us or necessary for us to commercialize our products or achieve our business goals. There can be no assurance that we will be able to obtain licenses to such patents on terms that are acceptable.

We have registered certain trademarks with the U.S. Patent and Trademark Office in connection with the sale of our products. We own federal trademark registrations of the following trademarks: **First Defense®**, our calf scours preventive product; **Wipe Out® Dairy Wipes** and the related design and the trademark One Step Cow Prep® , our pre-milking wipe product; **MASTiK®**, our antibiotic susceptibility test; and **Mast Out®**. In addition, we sell an animal health product under the trademark, **rjt**.

Government Regulation

The manufacture and sale of animal health biologicals within the United States is generally regulated by the USDA. However, **Mast Out®** is regulated by the FDA, Center for Veterinary Medicine, which regulates veterinary drugs. The manufacture of **Wipe Out® Dairy Wipes** also is regulated by the FDA, Center for Veterinary Medicine. Comparable agencies exist in foreign countries and foreign sales of our products will be subject to regulation by such agencies. Many states have laws regulating the production, sale, distribution or use of biological products, and we may have to obtain approvals from regulatory authorities in states in which we propose to sell our products. Depending upon the product and its applications, obtaining regulatory approvals may be a relatively brief and inexpensive procedure or it may involve extensive clinical tests, incurring significant expenses and an approval process of several years duration.

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We have received USDA approval for **First Defense®** (our scours preventive product) and **rjt** (our Johne s Disease diagnostic test). We believe that we are in compliance with current regulatory requirements relating to our business and products.

Product Liability

The manufacture and sale of certain of our products entails a risk of product liability. Our exposure to product liability is mitigated to some extent by the fact that our products are principally directed towards the animal health market. We have maintained product liability insurance in an amount which we believe is reasonable in relation to our potential exposure in this area.

Employees

We currently employ 32 full-time employees and 2 part-time employees. Approximately 18 full-time equivalent employees are engaged in manufacturing operations, 7.5 full-time equivalent employees in product development activities, 5 full-time equivalent employees in finance and administration and 2.5 full-time equivalent employees in sales. Approximately 20 of these employees joined the Company since January 1, 2006. At times, manufacturing personnel are also utilized, as needed, in the production of clinical material for use in product development. We are not a party to any collective bargaining agreement and consider our employee relations to be excellent.

Executive Officers of the Registrant

Our executive officers as of March 20, 2008 were as follows:

MICHAEL F. BRIGHAM (Age: 47, Officer since: October 1991, Director since: March 1999) was appointed to serve as President and Chief Executive Officer in February 2000, while maintaining the titles of Treasurer and Secretary, and was appointed to serve as a Director of the Company in March 1999. He previously had been elected Vice President of the Company in December 1998 and served as Chief Financial Officer since October 1991. He has served as Secretary since December 1995 and as Treasurer since October 1991. Prior to that, he served as Director of Finance and Administration since originally joining the Company in September 1989. Mr. Brigham serves on the Board of Directors of the Maine Biotechnology Information Bureau and as the Treasurer of the Board of Trustees of the Kennebunk Free Library. Prior to joining the Company, he was employed as an audit manager for the public accounting firm of Ernst & Young. Mr. Brigham earned his Masters in Business Administration from New York University in 1989.

JOSEPH H. CRABB, Ph.D. (Age: 53, Officer since: March 1996, Director since: March 2001) was appointed to serve as a Director of the Company in March 2001, having previously served in that capacity during the period from March 1999 until February 2000, and was elected Vice President of the Company in December 1998, while maintaining the title of Chief Scientific Officer. He has served as Chief Scientific Officer since September 1998. Prior to that, he served as Vice President of Research and Development since March 1996. Prior to that, he served as Director of Research and Development and Senior Scientist since originally joining the Company in November 1988. He is currently a reviewer for several peer-reviewed journals. Concurrent with his employment, he has served on five study sections at the National Institutes of Health and held two adjunct faculty positions. Prior to joining the Company in 1988, Dr. Crabb earned his Ph.D. in Biochemistry from Dartmouth Medical School and completed postdoctoral studies in microbial pathogenesis at Harvard Medical School, where he also served on the faculty.

Product Opportunities Outside of the Dairy and Beef Industries

1) *Product to Detect Cryptosporidium in Drinking Water*

Capitalizing on certain scientific knowledge gained while working on a milk antibody product to prevent *Cryptosporidium parvum* infections in humans during the early 1990 s, we developed the water

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diagnostic test, Crypto-Scan®. This non-animal health product utilizes our immunomagnetic separation technology. Despite gaining U.K. regulatory approval in November 2000, our sales of this product had been insignificant. In April 2005, we entered into an exclusive distribution agreement with TCS Biosciences Ltd. of England covering sales of this product in the European Union, Japan, and Australia, under which we are the exclusive manufacturer and supplier of the product to TCS. TCS has made some modifications to the test kit and obtained the necessary U.K. regulatory approval of the modified test. TCS has initiated commercial sales of this product under its trade name, Isolate Cryptosporidium.

2) *Milk Protein Purification Technology for Nutritional Applications*

In 1996, we formed a joint venture with Agri-Mark Inc. of Methuen, Massachusetts known as AgriCell Company, LLC to produce and sell a nutritional protein derived from cheese whey, known as lactoferrin. We licensed certain rights to a patented purification system to AgriCell for use in the production of lactoferrin. In March 2003, DMV International Nutritionals paid us $1,100,000 for our interest in the joint venture. We have no ongoing interest in or obligations to this operation.

In 1997, we licensed certain rights to the same patented protein purification system described above to Murray Goulburn Co-operative Co., Limited of Australia for the production of whey protein isolate and certain other milk proteins (excluding high purity lactoferrin). In consideration for the license, we received a $250,000 payment in 1997 and are entitled to a royalty on the sales of whey protein isolate and any other milk proteins manufactured under this license. In early 2000, Murray Goulburn launched commercial sales of whey protein isolate. We earned approximately $39,000, $21,000 and $49,000 in royalty income in 2005, 2006 and 2007, respectively, under this agreement.

3) *Milk Antibody Products for Humans*

During the 1990 s, we conducted several trials investigating the use of milk antibodies to prevent gastrointestinal infections caused by *Cryptosporidium parvum*, enterotoxigenic *E. coli* (Traveler s Diarrhea) and *Clostridium difficile* in humans. Utilizing **First Defense®** technology, these products would be produced by immunizing cows under contract from commercial dairy herds and sourcing antibodies specific to the pathogens of interest from their milk. After purifying the antibodies from the milk, the product would be dried and formulated for oral administration. We discontinued internal funding of the last of these products in 2000.

Under an Investigational New Drug application filed with the FDA in March 1997, we conducted a clinical trial in mid-1997 demonstrating the safety of DiffGAM anti-*Clostridium difficile* milk immunoglobulins and the colonic bioavailability of our patented oral formulation. We completed a multi-site, open label Phase I/II clinical trial of this product in 2000. The results of this trial demonstrated the preliminary safety and efficacy of DiffGAM in the treatment of *Clostridium difficile* associated diarrhea, a debilitating gastrointestinal disease that can be precipitated by the use of broad-spectrum antibiotics. The available scientific literature and the product s safety profile may be sufficient to allow for sales of DiffGAM as a nutritional supplement.

In 2003, we became part of a consortium with the Naval Medical Research Center and John Hopkins University which received funding under the Department of Defense Peer Reviewed Medical Research Program to study the development of a bovine milk immunoglobulins supplement to prevent diarrhea in humans. We earned approximately $66,000 and $12,000 during the years ended December 31, 2005 and 2006, respectively, to complete our work under this grant to supply TravelGAM anti-E. coli milk immunoglobulins for in vitro and in vivo trials. During 2006, our collaborators demonstrated preliminary efficacy of TravelGAM in a challenge/protection study in humans. This work was presented at the 41st Joint Conference on Cholera and other Bacterial Infections in Japan on November 7, 2006.

In March 2008, we granted Anadis, Ltd. of Australia an exclusive, worldwide license to the human and environmental applications of our milk antibody technology. Under this agreement, we are not obligated to fund further product development and are entitled to a royalty on any sales achieved by Anadis utilizing our technology.

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4) *Skin and Environment Sanitizing Products*

In connection with the December 1999 acquisition of **Wipe Out® Dairy Wipes**, we acquired certain exclusive rights to develop Nisin as a skin and environment sanitizer. These rights do not cover drug claims for specific indications or food preservation. There is significant published scientific literature that supports the broad-spectrum, antibacterial activity of Nisin. The expertise being developed in the manufacture of Nisin for our animal health products, **Wipe Out® Dairy Wipes** and **Mast Out®**, may benefit us in developing and selling Nisin formulations for skin and environment sanitizing applications.

During 2002, we collaborated with the U.S. Army s Edgewood Chemical Biological Center to investigate the effectiveness of Nisin against *Bacillus anthracis*. The major conclusions of this work were that: 1) Nisin formulations containing excipients selected from certain classes of detergents and chelators, kill vegetative cells and germinating spores of *B. anthracis*, *megaterium* and *cereus*, 2) Nisin alone has potent killing activity against *B. cereus* and *megaterium*, but not *B. anthracis* and 3) Nisin in the formulations tested does not kill spores of any species of *Bacillus*. This work was accepted and presented at the Biodefense Research Meeting of the American Society for Microbiology in March 2003. The participation of a marketing partner would be required to further develop and commercialize this potential product opportunity.

Risk Factors; Forward-Looking Statements

This Annual Report on Form 10-KSB contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such statements include, but are not limited to, any statements relating to: projections of future financial performance; future costs of development-related efforts; factors that may affect the dairy industry and future demand for our products; estimates of future market size; the scope and timing of future development work and commercialization of our products; anticipated changes in our manufacturing capabilities; the timing of anticipated applications for future regulatory approvals; anticipated future product development efforts; the future adequacy of our working capital; future expense ratios; costs and timing associated with achieving compliance with cGMP regulations; and any other statements that are not historical facts. Such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to difficulties or delays in development, testing, regulatory approval, production and marketing of our products, competition within our anticipated product markets, the uncertainties associated with product development, and other risks detailed from time to time in filings we make with the Securities and Exchange Commission, including our Quarterly Reports on Form 10-QSB or 10-Q, our Annual Reports on Form 10-KSB or 10-K and our Current Reports on Form 8-K. Such statements are based on our current expectations, but actual results may differ materially due to various factors, including the risk factors summarized below and uncertainties otherwise referred to in this Annual Report.

Product risks generally: The sale of our products is subject to financial, efficacy, regulatory and market risks. We cannot be sure that we will be able to maintain the regulatory compliance required to continue selling our products. There is no assurance that we will continue to achieve market acceptance at a profitable price level or that we can continue to manufacture our products at a sufficient gross margin.

*Reliance on sales of **First Defense®**:* We are heavily reliant on the market acceptance of **First Defense®** to generate product sales and fund our operations. Presently, our business would not be profitable without the gross margin that we earn from the sale of **First Defense®**.

Product development risks: Our current strategy relies heavily on the development of new products, the most important of which is **Mast Out®**. The development of new products is subject to financial, scientific, regulatory and market risks. In particular, resumption of our development work on **Mast Out®** requires substantial investments by us, and there is no assurance that we will obtain the necessary clinical and other data necessary to support regulatory approval for this product. There is also no assurance that our capital resources

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will prove to be sufficient to cover the costs associated with regulatory approvals, commercial manufacture or market launch of **Mast Out®** or any other new products. The market for the treatment of mastitis in dairy cows is highly competitive, and presently is dominated by large companies such as Pfizer, Fort Dodge and Schering Plough. There is no assurance that **Mast Out®** will compete successfully in this market.

Uncertainty of projections: After several consecutive years of reporting net income, we expect to report a net loss in 2008, due in large part to our current product development strategy. We have projected the amount of that loss before income taxes at approximately $500,000 to $750,000. Our actual financial performance for 2008 could differ significantly from the current projection, due to numerous factors that are difficult to predict or that are beyond our control. Stronger than expected sales of **First Defense®**, for example, could diminish the overall loss. Conversely, weaker than expected sales of **First Defense®** could lead to larger losses. Other examples of factors that could increase our loss beyond the current projection include, without limitation, unanticipated costs associated with developing and seeking regulatory approval of **Mast Out®**. Historically, we have not publicly disclosed our projections of future profitability. We do so in 2008 to make it clear to our shareholders that the decision to pursue internal development of **Mast Out®** entails an important change in our financial model and strategy, but one that we believe we have sufficient cash reserves to fund. We plan to provide updated estimates (again, stated as a range) in our Form 10-QSB reports in 2008. No decision has been made on whether we will continue to publish updated estimates in 2009.

Uncertainty of market estimates: **Mast Out®** has the potential to change the way in which dairy farmers treat mastitis. Even assuming that **Mast Out®** achieves regulatory approval in the United States with no milk discard requirement, estimating the size of the market for this product is subject to numerous uncertainties. Some of the uncertainties cited by our outside consultant include subclinical market development, coverage of relevant pathogens, selling price, integration of milk from treated cows into cheese starter cultures and market acceptance.

Small size: We are a small company with approximately 34 employees. As such, we rely on certain key employees to support different operational functions, with little redundancy in capacity. The loss of any of these key employees could adversely affect our operations until a qualified replacement is hired and trained.

Access to raw materials: Our policy is to maintain more than one source of supply for the components used in our products. However, there is a risk that we could have difficulty in efficiently acquiring essential supplies. We are dependent on our manufacturing operations and facility at 56 Evergreen Drive in Portland, Maine for the production of **First Defense®** and **Wipe Out® Dairy Wipes**. The specific antibodies that we purify for **First Defense®** and the Nisin we produce by fermentation for **Wipe Out® Dairy Wipes** are not readily available from other sources. Any disruption in the services at this facility could adversely affect the production of inventory.

Economics of the dairy industry: The dairy industry in the United States has been facing very difficult economic pressures. After declining in 2002 to price levels common in the 1970 s, the price of milk increased to a recent high in 2004 before decreasing in 2005 and further decreasing in 2006. Although the milk price strengthened significantly in 2007, the number of small dairy farmers continues to decrease. The financial insecurity of our primary customer base is a risk to our ability to maintain and grow sales at a profitable level.

*Regulatory requirements for **First Defense®***: **First Defense®** is sold in the United States subject to a product license approval from the USDA, first obtained in 1991. The potency of serial lots is directly traceable to the original serial used to obtain the product performance claims (the Reference Standard). Due to the unique nature of the **First Defense®** label claims, host animal re-testing is not required as long as periodic laboratory analyses continue to support the stability of stored Reference Standard. To date, these analyses have demonstrated strong stability. However, if the USDA declined to approve requalification of the Reference Standard, additional clinical studies could be required to meet regulatory requirements and allow for continued sales of the product.

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Regulatory requirements for ***Mast Out®***: The commercial introduction of **Mast Out®** in the United States will require us to obtain appropriate FDA approval for this product. Approval of a no milk discard claim is an important competitive feature of this product. It presently is uncertain whether and when this approval would be achieved. Such approval would also require a successful inspection under cGMP standards by the FDA of the facilities used to manufacture the product. We have not identified the cost or location of the commercial manufacturing facilities at this time. Foreign regulatory approvals would be required for sales outside of the U.S. European regulatory authorities are not likely to approve a product with the no milk discard claim, which would remove a significant competitive advantage of **Mast Out®** in that territory.

Regulatory requirements for ***Wipe Out® Dairy Wipes***: While the FDA regulates the manufacture and sale of **Wipe Out®**, this type of product is permitted to be sold without a NADA approval, in accordance with the FDA s Compliance Policy Guide 7125.30 (Teat Dips and Udder Washes for Dairy Cows and Goats). This policy guide could be withdrawn at the FDA s discretion. **Wipe Out®** falls within the Center for Veterinary Medicine s drug definition and is subject to the registration and drug listing requirements of Section 510 of the Federal Food, Drug and Cosmetic Act; accordingly its manufacture is subject to Part 211 of the cGMP regulations. As such, our operations are subject to audit by the FDA. We are investing in personnel, facility improvements and new equipment to bring our manufacturing operations into compliance with cGMP regulations across our entire product line. In June 2007, we received a Warning Letter from the FDA citing deficiencies in specific areas of the cGMP regulations. We filed a response to the FDA in June 2007, and we believe we have substantially corrected the deficiencies, but we remain subject to the risk of adverse action by the FDA in this respect.

Bovine diseases: The potential for epidemics of bovine diseases such as Foot and Mouth Disease, Bovine Tuberculosis, Brucellosis and Bovine Spongiform Encephalopathy (BSE) presents a risk to us and our customers. Documented cases of BSE in the U.S. have led to an overall tightening of regulations pertaining to ingredients of animal (especially bovine) origin. **First Defense®** is considered a veterinary medicine rather than a feed ingredient, and it is manufactured from bovine milk and colostrum, which is not considered a BSE risk material. Future regulatory action to increase protection of the human food supply could affect **First Defense®**, although presently we do not anticipate that this will be the case.

Biological terrorism: The threat of biological terrorism is a risk to both the economic health of our customers and to our ability to economically acquire and collect good quality raw material from our contract farms. Any act of widespread bioterrorism against the dairy industry could adversely affect our operations.

Public Information

As a reporting company, we file quarterly and annual reports with the Securities and Exchange Commission on Form 10-QSB or 10-Q and Form 10-KSB or 10-K. We also file current reports on Form 8-K, whenever events warrant or require such a filing. The public may read and copy any materials that we file with the SEC at the SEC s Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements and other information about us that we file electronically with the SEC at http://www.sec.gov. Our internet address is http://www.immucell.com.

ITEM 2 DESCRIPTION OF PROPERTY

We own a 26,800 square foot building at 56 Evergreen Drive in Portland, Maine. We currently use this space for substantially all of our office, laboratory and manufacturing needs. When we originally purchased this building in 1993, its size was 15,000 square feet, including 5,000 square feet of unfinished space on the second floor. In May 2001, we completed a construction project that added approximately 5,200 square feet of new manufacturing space on the ground level. The facility addition also added a storage mezzanine of approximately 4,100 square feet on the second floor. In May 2007, we completed a renovation project converting the 5,000

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square feet of unfinished space on the second floor into usable office space. After moving first floor offices into this space, we modified and expanded the laboratory space on the first floor. As part of this project, we also added approximately 2,500 square feet of mezzanine storage space in the second floor. This investment is an integral part of our strategy to become compliant with cGMP regulations in our manufacturing operations. We funded this project from available cash.

We rent approximately 550 square feet of office and warehouse space in New York State on a short-term basis to support our farm operations.

We maintain property insurance in amounts that approximate replacement cost. We also maintain access to certain animals, primarily cows, through contractual relationships with several commercial dairy farms.

ITEM 3 LEGAL PROCEEDINGS

None

ITEM 4 SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None

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PART II

ITEM 5 MARKET FOR COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND SMALL BUSINESS ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock trades on the NASDAQ Capital Market tier of the NASDAQ Stock Market under the symbol: ICCC. No dividends have been declared or paid on the common stock since its inception, and we do not contemplate the payment of cash dividends in the foreseeable future. The following table sets forth the high and low sales price information for our common stock as reported by the NASDAQ Stock Market during the period January 1, 2006 through December 31, 2007:

	2006 Three Months Ended				2007 Three Months Ended			
	March 31	June 30	September 30	December 31	March 31	June 30	September 30	December 31
High	$ 7.50	$ 6.95	$ 5.30	$ 6.72	$ 6.44	$ 6.12	$ 6.23	$ 4.88
Low	$ 4.85	$ 4.90	$ 4.55	$ 4.72	$ 5.03	$ 5.16	$ 3.56	$ 3.27

As of March 20, 2008, we had 8,000,000 common shares authorized and 2,892,476 common shares outstanding, and there were approximately 1,099 shareholders of record. The last sales price of our common stock on March 20, 2008 was $3.00 as quoted on the NASDAQ Stock Market.

In April 2003, we announced that our Board of Directors had approved a plan to repurchase up to 100,000 shares of our common stock as market conditions warrant. Repurchases under the plan aggregating 52,025 shares were made from time to time at the discretion of management. There was no fixed number of shares to be repurchased and no time limit for the completion of the repurchase plan. During 2003, we repurchased 5,900 shares of our common stock under this plan at a total cost of approximately $12,267 (average price of $2.08 per share). During 2006, we repurchased 30,907 shares of our common stock under this plan at a total cost of approximately $156,032 (average price of $5.05 per share). During 2007 and before this plan was terminated by our Board of Directors in August 2007, we repurchased 15,218 shares of our common stock under this plan at a total cost of $65,450 (average price of $4.30 per share) as reflected in the following table:

Date	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
During the three month period ended March 31, 2007	1,760	$ 5.25	1,760	61,433
During the three month period ended June 30, 2007	--	--	--	61,433
During the three month period ended September 30, 2007	13,458	$ 4.18	13,458	--
During the year ended December 31, 2007	15,218	$ 4.30	15,218	--

Equity Compensation Plan Information

The table below summarizes the common stock reserved for issuance upon the exercise of stock options outstanding as of December 31, 2007 or that could be granted in the future:

	Number of shares to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of shares remaining available for future issuance under stock-based compensation plans (excluding shares reflected in first column of this table)
Equity compensation plans approved by stockholders	446,000	$ 3.63	70,667
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Equity compensation plans not approved by stockholders				
Total	446,000	$	3.63	70,667

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ITEM 6 MANAGEMENT S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

Results of Operations

Fiscal 2007 Compared to Fiscal 2006

Product Sales

Product sales for the year ended December 31, 2007 increased by $466,000 (11%) to $4,772,000 from $4,306,000 in 2006, primarily due to growth in sales of **First Defense®**. We believe that sales of our products may be influenced by the price of milk, heifers and calves. A common index used in the industry to measure the price of milk is known as the Class III milk price, which indicates the value of 100 pounds of milk sold into the cheese market. The average Class III milk price for 2007 was $18.04 per 100 pounds, which represents a 52% increase over the 2006 average of $11.89. The average for 2006 decreased by 15% from the 2005 average of $14.05. For a point of reference, this price level was $10.42 in 2002, which approximates the price level experienced during the 1970 s. While an increase in the sales value of milk is good for our customers, some of this benefit has been offset by an increase in the cost to produce milk. One measure of this relationship is known as the milk-to-feed ratio. The milk-to-feed ratio measures the amount of feed that can be purchased with one pound of milk. In December 2007, this ratio dropped below the 3.0 level for the first time since June 2007, but this level is still above levels experienced in 2006. Another indication of the economic condition of the dairy industry is the price received by producers for heifers (cows that have not given birth to a first calf). In 2007, this price is estimated to have increased by approximately 6% to $1,840 in comparison to $1,735 per cow in 2006. This 2006 price is estimated to have held relatively flat in comparison to $1,773 in 2005.

Sales of **First Defense®** increased by 16% during the year ended December 31, 2007 in comparison to the same period in 2006. This increase was principally driven by higher sales volume rather than higher selling prices. Sales of **First Defense®** are normally seasonal, with higher sales expected during the first and fourth quarters and lower sales expected during the second and third quarters. **First Defense®** continues to benefit from wide acceptance by dairy and beef producers as an effective tool to prevent calf scours. During the second quarter of 2006, certain regional organic certifying agencies determined that the ingredients in **First Defense®** are in compliance with the National Organic Program (NOP) and may be considered for use on organic farms. **First Defense®** should be considered a preventative vaccine as described in USDA-NOP regulations for organic producer consideration when establishing management plans.

Sales of **Wipe Out® Dairy Wipes** decreased by 24% during the year ended December 31, 2007 in comparison to the same period in 2006. Domestic sales were essentially unchanged in 2007, and sales of this product into South Korea of approximately $90,000 during the year ended December 31, 2006 were not repeated in 2007. We believe that domestic sales growth potential is limited because most of our sales of this product tend to be to smaller farms that are under continued financial pressures that are forcing many small dairy producers out of business.

The other products we sell primarily into the dairy industry increased to $108,000 during the year ended December 31, 2007 compared to $88,000 during the same period in 2006. The other products we sell outside of dairy and beef industries, principally Isolate (formerly known as **Crypto-Scan®**), decreased to $116,000 during the year ended December 31, 2007 compared to $121,000 during the same period in 2006.

We have generally held our product selling prices without increase for the past seven years. During the first quarter of 2008, we implemented a modest increase to the selling price of **First Defense®**.

Other Revenues

Due primarily to the recognition of all remaining non-cash deferred technology licensing revenue during the third quarter of 2007, other revenues increased by 162%, or $801,000, to $1,297,000 during the year ended

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December 31, 2007 in comparison to the same period in 2006. Technology licensing revenue increased by 170%, or $786,000 to $1,248,000 during the year ended December 31, 2007 in comparison to the same period in 2006, due to the recognition during the third quarter of 2007 of all remaining deferred revenue from milestone payments under a product development and marketing agreement with Pfizer, which terminated during the third quarter of 2007. Royalty income increased by $28,000 during the year ended December 31, 2007 in comparison to the same period in 2006, as the result of higher sales reported by the firm that has licensed our milk protein purification technology. No product development grants or contracts have been applied-for or awarded since the first quarter of 2006.

Gross Margin

Changes in the gross margin on product sales are summarized in the following table for the respective periods (in thousands, except for percentages):

	Twelve Month Periods Ended December 31,		Increase (Decrease)	
	2007	2006	Amount	%
Gross margin	$ 2,504	$ 2,424	$ 80	3%
Percent of product sales	52%	56%	(4%)	(7%)

Product costs amounted to 48% of product sales in 2007 as compared to 44% in 2006. Driven primarily by increased sales of **First Defense®**, the gross margin on product sales increased by $80,000 (3%) to $2,504,000 from $2,424,000 in 2006. Internally developed products such as **First Defense®** tend to have higher gross margin percentages than acquired products. We anticipate a moderately lower gross margin percentage initially as new products are developed and acquired. Our gross margin percentage during 2007 was somewhat lower than normally expected during the nine month period ended September 30, 2007. We experienced some temporary inefficiencies during the renovation of our facility, which generally resulted in decreased output with no decline in labor and overhead costs. During the nine month period ended September 30, 2007, the gross margin on **First Defense®** also was adversely affected by biological yields from our raw material, which do fluctuate over time. Product mix also affects gross margin in that we earn a higher gross margin on **First Defense®** and a lower gross margin on **Wipe Out® Dairy Wipes**. More generally, we are beginning to experience higher costs for production of **First Defense®** and **Wipe Out® Dairy Wipes** due to increased labor costs and expenses associated with our efforts to implement compliance with cGMP regulations in our production processes.

Because **First Defense®** customers are price sensitive, we have held its selling price without significant increase for about seven years, believing that we can benefit more from higher unit sales volume than through a higher average selling price per unit. During the first quarter of 2008, we implemented a modest increase to the selling price of **First Defense®** reflecting a part of the increase we have experienced in our labor and raw material costs.

Product Development and Licensing

Product development expenses increased by 64%, or $613,000, to $1,579,000 during the year ended December 31, 2007, as compared to $966,000 during the same period in 2006. Product development expenses aggregated 26% and 20% of total revenues in 2007 and 2006, respectively. During the years ended December 31, 2007 and 2006, product development expenses included $439,000 and $220,000, respectively, in amortization of the intangible asset pertaining to our November 2004 buy-out of certain future milestone and royalty payment obligations under our license to the animal health applications of Nisin. Net of these amortization expenses, product development expenses of $1,140,000 and $746,000, amounted to 24% and 17% of product sales during the years ended December 31, 2007 and 2006, respectively. The majority of our product development budget from 2000 through 2007 has been focused on the development of **Mast Out®**. Going forward, we expect to focus our internally-funded product development expenses on **Mast Out®** and other improvements, extensions or additions to our current product line and an effort to achieve cGMP compliance in our manufacturing operations.

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In addition to the development efforts on **Mast Out®**, we are actively exploring further improvements, extensions, or additions to our current product line. We are investigating the potential to prevent scours in calves caused by pathogens other than those within the current **First Defense®** disease claims (*E. coli* K99 and coronavirus). We also remain interested in acquiring other new products and technologies that fit with our sales focus on the dairy and beef industries.

General and Administrative Expenses

General and administrative expenses increased by approximately $132,000 (18%) to $843,000 in 2007 as compared to $712,000 in 2006. These increases result, in large part, from increased stock-based compensation expense (approximately $44,000 during 2007 compared to $18,000 during 2006), costs associated with complying with the Sarbanes-Oxley Act of 2002 and other costs associated with being a publicly-held company.

Product Selling Expenses

Product selling expenses increased by approximately $35,000 (7%) to $506,000 in 2007, aggregating 11% of product sales in 2007 and 2006. We continue to leverage the efforts of our small sales force through veterinary distributors. Our objective is to maintain the ratio of product selling expenses to product sales below 15% on an annual basis.

Interest Income

Interest income increased by approximately $8,000 (3%) to $276,000 in 2007 in comparison to 2006 due principally to an increase in interest rates in 2007 that was offset, in part, by a reduction in funds invested during 2007. We have not incurred interest expense since we repaid our outstanding bank debt in May 2002.

Income Before Income Taxes and Net Income

Upon termination of the product development and marketing agreement with Pfizer, we recognized $931,000 in related deferred revenue and amortized $329,000 of an associated intangible technology asset, resulting in a $602,000 net increase to income before income taxes during the third quarter of 2007. During the year ended December 31, 2007, we recognized $1,248,000 in deferred revenue related to the product development and marketing agreement, and we recorded $439,000 in amortization expense pertaining to the associated intangible technology asset, resulting in a net increase to income before income taxes of $808,000.

Income before income taxes of $1,144,000 for the year ended December 31, 2007 compares to $1,034,000 for the year ended December 31, 2006. We recorded income tax expense at an effective tax rate of 42% and 37% in 2007 and 2006, respectively, resulting in net income of $662,000 and $647,000 for the years ended December 31, 2007 and 2006, respectively. Income tax expense included a deferred tax expense (benefit) of $435,000 and ($101,000) for the years ended December 31, 2007 and 2006, respectively. The increase in the effective tax rate was largely due to an increase in non tax deductible stock-based compensation expense. Our net income during the years ended December 31, 2007 and 2006 was $662,000 ($0.22 per diluted share) and $647,000 ($0.21 per diluted share), respectively.

Fiscal 2006 Compared to Fiscal 2005

Product Sales

Product sales for the year ended December 31, 2006 increased by $73,000 (2%) to $4,306,000 from $4,233,000 in 2005, primarily due to growth in sales of **First Defense®**. We believe that sales of our products are influenced by the price of milk sold by our primary customers. After declining in 2002 to price levels common in the 1970 s, the price of milk increased to a recent high in 2004 before decreasing in 2005 and further decreasing

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in 2006. A common index used in the industry to measure this trend is known as the Class III milk price, which indicates the value of 100 pounds of milk sold into the cheese market. The average Class III milk price for 2006 was $11.89 per 100 pounds, which represents a 15% decrease from the 2005 average of $14.05, but is still 14% higher than the 2002 price level of $10.42. The average Class III milk price for 2004 and 2003 was $15.39 and $11.42, respectively. The declines reflected in this price index over the past two years may have limited the rate of increase of our product sales.

Sales of **First Defense®** increased by 6% during the year ended December 31, 2006 in comparison to the same period in 2005. This increase was principally driven by higher sales volume rather than higher selling prices. Sales of **First Defense®** are normally seasonal with highest sales expected in the first quarter and lower sales expected during the summer months.

Sales of **Wipe Out® Dairy Wipes** increased by 9% during the year ended December 31, 2006 in comparison to the same period in 2005. During 2006, domestic sales increased 5% and foreign sales increased 20%. We believe that domestic sales growth potential is limited because most of our sales of this product tend to be to smaller farms that are under continued financial pressures that are forcing many small dairy producers out of business. Sales of this product into South Korea of approximately $90,000 and $100,000 during the years ended December 31, 2006 and 2005, respectively, were not repeated in 2007.

The other products we sell primarily into the dairy industry decreased to $88,000 during the year ended December 31, 2006 compared to $153,000 during the same period in 2005. The other products we sell outside of dairy and beef industries, principally Isolate (formerly known as Crypto-Scan®), decreased to $121,000 during the year ended December 31, 2006 compared to $214,000 during the same period in 2005.

We generally held our product selling prices without increase during 2006 and 2005.

Other Revenues

Other revenues for the year ended December 31, 2006 decreased by $254,000 (34%) to $495,000 from $750,000 in 2005. Technology licensing revenue included approximately $444,000 and $455,000 during the years ended December 31, 2006 and 2005, respectively, in revenue recognized from the $2,150,000 in milestone payments received from Pfizer. The remaining balance of $1,230,000 was recorded as deferred revenue at December 31, 2006 and is expected to be recognized over the period ending December 31, 2008. Effective October 1, 2005, this revenue recognition period was extended by one year from December 31, 2007. Technology licensing revenue also included approximately $18,000 and $190,000 during the years ended December 31, 2006 and 2005, respectively, under a $225,000 supplemental contract to supply and test additional **Mast Out®** clinical material for Pfizer. Grant income was $12,000 and $66,000 for the years ended December 31, 2006 and 2005, respectively, comprising approximately 1% of total revenues in 2006 and 2005. Most of the grant income supported work on the development of TravelGAM . Royalty income decreased by $18,000 (46%) to $21,000 in 2006 due to lower sales of whey protein isolate by our licensee.

Gross Margin

Changes in the gross margin on product sales are summarized in the following table for the respective periods (in thousands, except for percentages):

	Twelve Month Periods Ended December 31,		(Decrease)	
	2006	2005	Amount	%
Gross margin	$ 2,424	$ 2,599	$ (176)	(7%)
Percent of product sales	56%	61%	(5%)	(8%)

Product costs amounted to 44% of product sales in 2006 as compared to 39% in 2005. The gross margin on product sales decreased by $176,000 (7%) to $2,424,000 from $2,599,000 in 2005, primarily due to a higher

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per unit cost of production of **First Defense®** and increased sales of **Wipe Out® Dairy Wipes** which product has a lower gross margin. Internally developed products such as **First Defense®** tend to have higher gross margin percentages than acquired products. We anticipate a moderately lower gross margin percentage initially as new products are developed and acquired.

Product Development and Licensing

We decreased our product development expenditures by approximately $304,000 (24%) to $966,000 in 2006 as compared to $1,270,000 in 2005. Work under a supplemental agreement worth $225,000 to supply and test additional clinical trial material for Pfizer was 92% and 84% completed as of December 31, 2006 and 2005, respectively. Amortization expense of the intangible asset pertaining to the November 2004 buy out of our **Mast Out®** royalty obligation from Nutrition 21, Inc. decreased to $220,000 during the year ended December 31, 2006 from $293,000 during the year ended December 31, 2005. The remaining asset balance of $439,000 as of December 31, 2006 is expected to be amortized to product development expense over the period ending December 31, 2008. Effective October 1, 2005, this expense amortization period was extended by one year from December 31, 2007. Product development expenses aggregated 20% and 25% of total revenues in 2006 and 2005, respectively. Product development expenses exceeded grant income by approximately $954,000 in 2006 and by $1,204,000 in 2005. These net product development expenses decreased to 22% of product sales in 2006 from 28% of product sales in 2005. Excluding the non-cash amortization expense, the net product development expenses were $734,000 and $912,000 during the years ended December 31, 2006 and 2005, respectively, amounting to 17% and 22% of product sales, respectively. The majority of our product development budget from 2000 through 2006 has been focused on the development of **Mast Out®**. During this period, Pfizer was responsible for most of the **Mast Out®** product development expenses.

General and Administrative Expenses

General and administrative expenses decreased by approximately $3,000 (less than 1%) to $712,000 in 2006 as compared to $715,000 in 2005. Increases in salaries and other costs were offset by decreases in payments to outside advisors and consultants.

Product Selling Expenses

Product selling expenses increased by approximately $44,000 (10%) to $471,000 in 2006, aggregating 11% of product sales in 2006, compared to 10% in 2005. We expect to invest less than 15% of product sales in selling expenses. We continue to leverage the efforts of our small sales force through veterinary distributors.

Interest Income

Interest income increased by approximately $140,000 (110%) to $268,000 in 2006 in comparison to 2005 due principally to the increased amount of invested funds and an increase in interest rates in 2006. We have not incurred interest expense since we repaid our outstanding bank debt in May 2002.

Income Before Income Taxes; Net Income

Income before income taxes of $1,034,000 for the year ended December 31, 2006 compares to $1,071,000 for the year ended December 31, 2005. We recorded income tax expense at an effective tax rate of 37% and 34% in 2006 and 2005, respectively, resulting in net income of $647,000 and $708,000 for the years ended December 31, 2006 and 2005, respectively. The 2005 income tax expense included a tax benefit of approximately $62,000 due to the elimination of a valuation allowance pertaining to certain deferred tax assets. Income tax expense included a deferred tax (benefit) expense of ($101,000) and $140,000 for the years ended December 31, 2006 and 2005, respectively.

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Selected Financial Data

The selected financial data set forth below has been derived from our audited financial statements. The information should be read in conjunction with the audited financial statements and related notes appearing elsewhere in this Form 10-KSB and in earlier reports filed on Form 10-KSB or 10-K.

	Year Ended December 31,				
	2003	2004	2005	2006	2007
	(In thousands, except for per share amounts)				
Statement of Operations Data:					
Product sales	$ 3,145	$ 3,524	$ 4,233	$ 4,306	$ 4,772
Total revenues	3,357	3,696	4,983	4,801	6,069
Gross margin from product sales	1,797	2,075	2,599	2,424	2,504
Product development expenses	1,350	1,092	1,270	966	1,579
Product selling expenses	493	401	426	471	506
Net interest and other income	1,145	56	133	263	272
Income before income taxes	716	177	1,071	1,034	1,144
Net income	411	144	708	647	662
Per Common Share:					
Basic net income	0.15	0.05	0.25	0.22	0.23
Diluted net income	0.15	0.05	0.24	0.21	0.22
Cash dividend	--	--	--	--	--
Statement of Cash Flows Data:					
Net cash provided by operating activities	1,404	1,358	765	1,583	350
Balance Sheet Data:					
Cash, cash equivalents and short-term investments	4,245	4,450	5,150	6,614	5,412
Total assets	8,187	9,530	9,955	11,364	10,412
Current liabilities	416	814	697	1,417	356
Net working capital	4,965	4,998	6,091	6,934	6,710
Long-term liabilities	400	986	700	615	--
Stockholders equity	$ 7,370	$ 7,729	$ 8,558	$ 9,332	$ 10,057

Financial Condition, Liquidity and Capital Resources

We had approximately $5,412,000 in available cash and short-term investments as of December 31, 2007. We are using some of this cash to fund product development (principally **Mast Out®**) and to invest in our efforts to become compliant with cGMP regulations in our manufacturing operations. We continue to look for new product acquisition opportunities that would have a strategic fit with the products that we currently sell.

The table below summarizes the changes in selected, key balance sheet items:

	Balance at December 31,		(Decrease) Increase	
	2006	2007	$	%
	(In thousands, except for percentages)			
Cash, cash equivalents and short-term investments	$ 6,614	$ 5,412	$ (1,202)	(18%)
Net working capital	$ 6,934	$ 6,710	$ (224)	(3%)
Total assets	$ 11,364	$ 10,412	$ (952)	(8%)
Stockholders equity	$ 9,332	$ 10,057	$ 725	8%

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Cash, cash equivalents and short-term investments decreased by 18%, or $1,202,000, to $5,412,000 at December 31, 2007 from $6,614,000 at December 31, 2006. Net cash provided by operating activities amounted to $350,000 during the year ended December 31, 2007 as compared to $1,583,000 during the year ended December 31, 2006. The most significant reductions in operating cash flows were due to the timing of income tax payments and the recognition of deferred revenue. Capital investments of $1,528,000 were funded principally by short-term investments. Total assets decreased by 8%, or $952,000, to $10,412,000 at December 31, 2007 from $11,364,000 at December 31, 2006. The Company has no outstanding bank debt. Net working capital decreased by 3%, or $224,000, to $6,710,000 at December 31, 2007 from $6,934,000 at December 31, 2006. Stockholders equity increased by 8%, or $725,000, to $10,057,000 at December 31, 2007 from $9,332,000 at December 31, 2006, primarily as a result of net income earned during 2007.

As we implement the process improvements necessary to achieve compliance with cGMP regulations across all products, we are investing in personnel, equipment and facility improvements. We have hired personnel in our quality department with experience implementing cGMP regulations. We have completed the renovation of approximately 7,500 square feet of unfinished space on the second floor of our company-owned facility to provide for approximately 5,000 square feet of additional office space and approximately 2,500 square feet of additional warehouse space. By moving our offices from the first floor into this new space on the second floor, we created additional laboratory space on the first floor, which will help us segregate and improve our production, quality control and product development processes. These investments will be amortized over their useful lives of approximately ten years for equipment, and approximately through 2023 for facility improvements. This project was substantially completed in May 2007 for a total cost of approximately $1,500,000. We used available cash to fund this project. Most of the increased salary expenses associated with becoming cGMP-compliant are being classified as product development expenses through 2008. Beginning in approximately 2009, these expenses will become part of our recurring manufacturing overhead structure, thereby potentially reducing our reported gross margin. Given Pfizer s decision to terminate its product development and marketing agreement with us in July 2007, we believe that our earlier investment in these improvements has proven even more valuable by facilitating our continued development of **Mast Out®** internally.

The return of the **Mast Out®** product rights to us and the resumption of our product development efforts will increase our spending on product development expenses as we pay expenses that had been previously funded by Pfizer. Effective September 1, 2007, Dr. Joseph H. Crabb, Vice President and Chief Scientific Officer, returned to full-time status (from part-time since January 2005) to lead the product development effort. We have hired additional employees to work on this program and have allocated a portion of several current employees to assist them. We expect that the expenditures in 2008 and 2009 from an aggressive program of development of this product will result in a temporary end to the annual profitability that we have been able to record for each of nine years from 1999 through 2007. We believe that the cash we have accumulated during the nine years of profitability, together with the gross margin from product sales going forward, will be more than sufficient to fund our projected losses. At this point, we project a loss before income taxes for 2008 of approximately $500,000 to $750,000. We believe that the commercial prospects for **Mast Out®** warrant this level of investment.

With approximately $5,412,000 in cash and short-term investments as of December 31, 2007, we believe that we have sufficient capital resources to meet our working capital requirements and to finance our ongoing business operations during at least the next twelve months. Although we also believe that these cash reserves should be sufficient to fund the internal development of **Mast Out®**, we remain alert for opportunities to enter into collaborative partnerships with other companies to help share the anticipated costs and risks associated with developing this product and bringing it to market. With no outstanding bank debt currently, we could use our cash and possibly new debt to finance an acquisition of an opportunity that is synergistic with our current business.

During 2007, operating activities provided approximately $350,000 in cash. The three largest operating activities that were added back to net income of $662,000 were: 1) depreciation and amortization expense of $789,000, 2) a reduction in deferred income tax net assets of $435,000 and 3) a reduction in inventories of

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$201,000. The three largest operating activities that were deducted from net income were: 1) a decrease in deferred revenue of $1,248,000, 2) an increase in income taxes receivable of $367,000 and 3) an increase in receivables of $172,000. Investing activities used $481,000 in cash, comprised of a $1,528,000 investment in fixed assets and net maturities of $1,046,000 in short-term investments. Financing activities included approximately $38,000 in proceeds from the issuance of common stock upon the exercise of stock options and the use of approximately $65,000 to repurchase common stock.

Nisin for **Wipe Out® Dairy Wipes** had been produced for us under subcontract since the product s acquisition in 1999. During 2003, we began making building modifications and fixed asset acquisitions necessary to bring the production process in-house. This project was completed in 2004 for approximately $423,000. This manufacturing process was further improved during 2005 and 2006. This facility was also used during 2005 to produce clinical material for **Mast Out®** effectiveness trials.

Since 1999, our strategy has been focused on selling and developing products that improve animal health and productivity in the dairy and beef industries. These product opportunities are generally less expensive to develop than the human health product opportunities that we had worked on during the 1990 s. We funded most of our product development expenses principally from product sales and have been profitable for each of the nine years in the period ended December 31, 2007. During the nine years of profitability from 1999 through 2007, our cumulative investment in product development expenses of $9,894,000 was supported, in part, by $975,000 in grant awards. We may, on occasion, seek additional research grant support as a means of leveraging the funds that we are able to spend developing new products.

Off-Balance Sheet Arrangements

None

Effects of Inflation and Interest Rates; Currency Fluctuations

We believe that neither inflation nor interest rates have had a significant effect on our revenues and expenses. Future increases in inflation or interest rates, however, could affect our customers and the demand for our products. We hope to increase the level of our future sales of products outside the United States. The cost of our products to foreign customers could be affected by currency fluctuations. The decline of the U.S. dollar against other currencies could make our products less expensive to foreign customers. Overall, however, we do not anticipate that currency fluctuations will significantly affect our sales or the cost of operations.

Critical Accounting Policies

Details regarding the impact of new accounting pronouncements on our financial statements are provided in Note 2(l) to our financial statements. The financial statements are presented on the basis of accounting principles that are generally accepted in the U.S. All professional accounting standards that were effective and applicable to us as of December 31, 2007 have been taken into consideration in preparing the financial statements. The preparation of financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, income taxes, contingencies and the useful lives and carrying values of intangible and long lived assets. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We have chosen to highlight certain policies that we consider critical to the operations of the business and understanding our financial statements.

We recognize revenue in accordance with Staff Accounting Bulletin (SAB) No. 104, Revenue Recognition , which supersedes SAB No. 101, Revenue Recognition in Financial Statements . SAB No. 104

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requires that four criteria are met before revenue is recognized. These include i) persuasive evidence that an arrangement exists, ii) delivery has occurred or services have been rendered, iii) the seller s price is fixed and determinable and iv) collectibility is reasonably assured. We recognize revenue at the time of shipment (including to distributors) for substantially all products, as title and risk of loss pass to the customer on delivery to the common carrier after concluding that collectibility is reasonably assured. We recognize service revenue at the time the service is performed. Royalty income is recorded on the accrual basis based on sales as reported to us by our licensee pursuant to the terms of the agreement. Non-refundable grant income is recognized as reimbursable expenses are incurred. Indirect costs which are billed to the government are subject to their review. All research and development costs and patent costs are expensed as incurred, except as described in the next paragraph.

In November 2004, we capitalized the $965,000 payment we made to Nutrition 21, Inc. to buy out certain future milestone and royalty payment obligations, which principally resulted in a fully paid, perpetual license related to **Mast Out®**. We deferred the revenue from the $2,150,000 in milestone payments that were received from Pfizer from December 2004 to September 2006 in connection with a product development and marketing agreement covering **Mast Out®**. Upon termination of this agreement in 2007, we recognized the remaining deferred income from non-refundable milestone payments and wrote-off the remaining unamortized cost of technology license rights. This resulted in a net increase to income before income taxes of approximately $602,000 during the third quarter of 2007.

Inventories include raw materials, work-in-process and finished goods and are recorded at the lower of standard cost which approximates cost on the first-in, first-out method or market (net realizable value). Work-in-process and finished goods inventories include materials, labor and manufacturing overhead.

I TEM 7 FINANCIAL STATEMENTS

Our financial statements, together with the notes thereto and the report of the independent registered public accounting firm thereon, are set forth on Pages F-1 through F-18 at the end of this report. The index to these financial statements is as follows:

ITEM 8 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

I TEM 8A(T) CONTROLS AND PROCEDURES

Disclosure Controls and Procedures. Our management, with the participation of the individual who serves as our principal executive and principal financial officer, evaluated the effectiveness of our disclosure

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controls and procedures as of December 31, 2007. Based on this evaluation, that officer concluded that our disclosure controls and procedures were effective as of that date. Disclosure controls and procedures are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported, within the time periods specified in the SEC s rules and forms and (ii) is accumulated and communicated to our management, including our principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management s Annual Report on Internal Control over Financial Reporting. The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company s internal control over financial reporting is 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.

Management conducted an evaluation of the effectiveness of the internal controls over financial reporting based on the framework in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. This evaluation included a review of the documentation of controls, evaluation of the design effectiveness of controls, testing the operating effectiveness of the controls and a conclusion on this evaluation. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. 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.

Management assessed the effectiveness of the Company s internal control over financial reporting as of December 31, 2007. Based on management s assessment and those criteria, management believes that the internal control over financial reporting as of December 31, 2007 was effective.

This Annual Report does not include an attestation report of the Company s independent registered public accounting firm regarding internal control over financial reporting. Management s internal control report was not subject to attestation by the Company s independent registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit the Company to provide only management s report.

Changes in Internal Controls over Financial Reporting. There was no change in our internal control over financial reporting that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

I TEM 8B OTHER INFORMATION

None

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PART III

ITEM 9 DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIAN CE WITH SECTION 16(a) OF THE EXCHANGE ACT

Information with respect to our directors is incorporated herein by reference to the section of our 2008 Proxy Statement titled Election of the Board of Directors , which we intend to file with the Securities and Exchange Commission within 120 days after the end of our fiscal year. The information required by this item with respect to our executive officers is contained in Item 1 of Part I of this Annual Report on Form 10-KSB under the heading *Executive Officers of the Registrant*. There is no family relationship between any director, executive officer, or person nominated or chosen by the Company to become a director or executive officer.

ITE M 10 EXECUTIVE COMPENSATION

Information regarding cash compensation paid to our executive officers is incorporated herein by reference to the section of our 2008 Proxy Statement titled Executive Compensation , which we intend to file with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

ITEM 11 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATT ERS

Information regarding ownership of our common stock by certain owners and management is incorporated herein by reference to the section of our 2008 Proxy Statement titled Security Ownership of Certain Beneficial Owners and Management , which we intend to file with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

ITE M 12 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Information regarding certain relationships and related transactions is incorporated herein by reference to the section of our 2008 Proxy Statement titled Certain Relationships and Related Transactions , which we intend to file with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

ITE M 13 EXHIBITS

3.1	Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 of the Registrant s 1987 Registration Statement Number 33-12722 on Form S-1 as filed with the Commission).
3.2	Certificate of Amendment to the Company s Certificate of Incorporation (incorporated by reference to Exhibit 4.1 to the Registrant s Quarterly Report on Form 10-Q for the three month period ended June 30, 1990).
3.3	Certificate of Amendment to the Company s Certificate of Incorporation effective August 24, 1992 (incorporated by reference to Exhibit 3.4 of the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1992).
3.4	Bylaws of the Registrant as amended (incorporated by reference to Exhibit 3.3 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1995).
4.1	Rights Agreement dated as of September 5, 1995, between the Registrant and American Stock Transfer and Trust Co., as Rights Agent, which includes as Exhibit A thereto the form of Right Certificate and as Exhibit B thereto the Summary of Rights to Purchase Common Stock (incorporated by reference to Exhibit 4.1 to the Registrant s Current Report on Form 8-K dated September 5, 1995).
4.1A	Amendment to Rights Agreement, dated as of June 30, 2005, between the Registrant and American Stock Transfer & Trust Co., as Rights Agent (incorporated by reference to Exhibit 4.1A to the Registrant s Current Report on Form 8-K filed July 5, 2005).

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10.1+	1989 Stock Option and Incentive Plan of the Registrant (incorporated by reference to Exhibit 10.27 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1989).
10.2+	Form of Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.28 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1989).
10.3+	Form of Indemnification Agreement entered into with prior Directors and Officers (incorporated by reference to Exhibit 10.32 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1989).
10.3A+	Form of Indemnification Agreement (updated) entered into with each of the Registrant s Directors and Officers (incorporated by reference to Exhibit 10.3A to the Registrant s Annual Report on Form 10-KSB for the fiscal year ended December 31, 2006).
10.4(1)	License Agreement between the Registrant and Murray Goulburn Co-operative Co., Limited, dated November 14, 1997 (incorporated by reference to Exhibit 10.26 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1997).
10.5+	Employment Agreement dated April 29, 1999 between the Registrant and Michael F. Brigham (incorporated by reference to Exhibit 10.22 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1999).
10.6+	Employment Agreement dated April 29, 1999 between the Registrant and Joseph H. Crabb (incorporated by reference to Exhibit 10.23 to the Registrant s Annual Report on Form 10-K for the fiscal year ended December 31, 1999).
10.7	Asset Purchase Agreement between the Registrant and Nutrition 21, Inc. dated December 30, 1999 (incorporated by reference to Exhibit 2 to the Registrant s Current Report on Form 8-K filed January 13, 2000).
10.8+	2000 Stock Option and Incentive Plan of the Registrant (incorporated by reference to Exhibit 10.1 to the Registrant s Quarterly Report on Form 10-Q for the three month period ended June 30, 2000).
10.9+	Form of Incentive Stock Agreement (incorporated by reference to Exhibit 10.2 to the Registrant s Quarterly Report on Form 10-Q for the three month period ended June 30, 2000).
10.10+	2000 Stock Option Plan for Outside Directors of the Registrant (incorporated by reference to Exhibit 10.3 to the Registrant s Quarterly Report on Form 10-Q for the three month period ended June 30, 2000).
10.11+	Form of Stock Option Agreement (incorporated by reference to Exhibit 10.4 to the Registrant s Quarterly Report on Form 10-Q for the three month period ended June 30, 2000).
10.12	License and Sublicense Agreement between the Registrant and Nutrition 21, Inc. (f/k/a AMBI Inc.) dated as of April 12, 2000, as amended through November 17, 2004 (conformed copy) (incorporated by reference to Exhibit 10.1 to the Registrant s Current Report on Form 8-K filed November 19, 2004).
10.13+	Amended Employment Agreement dated as of January 1, 2005 between the Registrant and Joseph H. Crabb (incorporated by reference to Exhibit 10.1 to the Registrant s Current Report on Form 8-K filed January 4, 2005).
10.14+	Amended and restated Employment Agreement between the Registrant and Joseph H. Crabb, effective July 28, 2005 (incorporated by reference to Exhibit 10.1 to the Registrant s Current Report on Form 8-K filed July 28, 2005).
14	Code of Business Conduct and Ethics (incorporated by reference to Exhibit 14 to the Registrant s Annual Report on Form 10-K for the year ended December 31, 2003).
23	Consent of Baker Newman & Noyes, LLC.
31	Rule 13a-14(a) Certifications.
32	Section 1350 Certifications.

(1) Confidential treatment previously granted as to certain portions.

\+ Management contract or compensatory plan or arrangement.

ITEM 14 PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding our principal accountant fees and services is incorporated by reference to the section of our 2008 Proxy Statement titled Principal Accountant Fees and Services , which we intend to file with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

ImmuCell Corporation

Portland, Maine

We have audited the balance sheets of ImmuCell Corporation as of December 31, 2007 and 2006, and the related statements of operations, stockholders equity and cash flows for each of the three years in the period ended 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.

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 provided a reasonable basis for our opinion.

As discussed in Note 2(k) to the financial statements, in 2006 ImmuCell Corporation changed its method of accounting for stock-based compensation in accordance with guidance provided in Statement of Financial Accounting Standards No. 123R, *Share-Based Payments*.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of ImmuCell Corporation as of December 31, 2007 and 2006, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles. We were not engaged to examine management s assertion about the effectiveness of ImmuCell Corporation s internal control over financial reporting as of December 31, 2007 included in the accompanying Management s Annual Report on Internal Control over Financial Reporting (Item 8A(T)) and, accordingly, we do not express an opinion thereon.

Portland, Maine
March 20, 2008

/s/ Baker Newman & Noyes
Baker Newman & Noyes, LLC

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IMMUCELL CORPORATION

BALANCE SHEETS

AS OF DECEMBER 31, 2006 and 2007

	2006	2007
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 1,348,854	$ 1,192,637
Short-term investments	5,265,336	4,218,880
Trade accounts receivable, net of allowance for doubtful accounts of $11,000 and $10,000 at December 31, 2006 and 2007, respectively	523,956	712,224
Income taxes receivable	--	126,872
Other receivables	96,757	80,858
Inventories	789,178	588,609
Current portion of deferred tax asset	267,066	75,066
Prepaid expenses	59,677	70,215
Total current assets	8,350,824	7,065,361
PROPERTY, PLANT AND EQUIPMENT, at cost:		
Laboratory and manufacturing equipment	1,810,720	2,249,866
Building and improvements	1,571,195	2,335,895
Office furniture and equipment	135,014	188,245
Construction in progress	298,984	42,388
Land	50,000	50,000
	3,865,913	4,866,394
Less-accumulated depreciation	1,982,629	1,926,008
Net property, plant and equipment	1,883,284	2,940,386
LONG-TERM PORTION OF DEFERRED TAX ASSET	583,240	340,037
PRODUCT RIGHTS AND OTHER ASSETS, net of accumulated amortization of $789,000 and $1,269,000 at December 31, 2006 and 2007, respectively	546,438	66,704
TOTAL ASSETS	$ 11,363,786	$ 10,412,488
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accrued expenses	$ 294,370	$ 237,181
Accounts payable	249,525	118,336
Deferred revenue	632,576	--
Income taxes payable	240,327	--
Total current liabilities	1,416,798	355,517
LONG-TERM PORTION OF DEFERRED REVENUE	614,974	--
STOCKHOLDERS EQUITY:		
Common stock, Par value-$0.10 per share, Authorized-8,000,000 shares, Issued-3,261,148 shares at December 31, 2006 and 2007	326,115	326,115
Capital in excess of par value	9,565,738	9,668,872

Accumulated surplus	202,791	864,929
Treasury stock, at cost-365,454 and 368,672 shares at December 31, 2006 and 2007, respectively	(762,630)	(802,945)
Total stockholders equity	9,332,014	10,056,971
TOTAL LIABILITIES AND STOCKHOLDERS EQUITY	$ 11,363,786	$ 10,412,488

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

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IMMUCELL CORPORATION

STATEMENTS OF OPERATIONS

FOR THE YEARS ENDED DECEMBER 31, 2005, 2006 and 2007

	2005	2006	2007
REVENUES:			
Product sales	$ 4,233,282	$ 4,305,890	$ 4,772,331
Technology licensing revenue	645,016	461,886	1,247,550
Royalty income	39,329	21,080	49,306
Grant income	65,515	12,414	--
Total revenues	4,983,142	4,801,270	6,069,187
COSTS AND EXPENSES:			
Product costs	1,633,932	1,882,364	2,268,817
Product development expenses	1,269,950	965,926	1,579,352
General and administrative expenses	714,943	711,712	843,341
Product selling expenses	426,283	470,587	505,574
Total costs and expenses	4,045,108	4,030,589	5,197,084
Net operating income	938,034	770,681	872,103
Interest income	127,786	267,933	276,370
Other income (expense), net	5,268	(4,564)	(4,830)
Net interest and other income	133,054	263,369	271,540
INCOME BEFORE INCOME TAXES	1,071,088	1,034,050	1,143,643
INCOME TAX EXPENSE	363,306	386,913	481,505
NET INCOME	$ 707,782	$ 647,137	$ 662,138
NET INCOME PER COMMON SHARE:			
Basic	$ 0.25	$ 0.22	$ 0.23
Diluted	$ 0.24	$ 0.21	$ 0.22
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:			
Basic	2,823,599	2,888,128	2,897,488
Diluted	3,003,002	3,051,470	3,033,797

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

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IMMUCELL CORPORATION

STATEMENTS OF STOCKHOLDERS EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2005, 2006 and 2007

	Common Stock $0.10 Par Value		Capital in Excess of	Accumulated (Deficit)	Treasury Stock		Total Stockholders
	Shares	Amount	Par Value	Surplus	Shares	Amount	Equity
BALANCE,							
December 31, 2004	3,190,148	$ 319,015	$ 9,160,991	$ (1,152,128)	395,498	$ (599,002)	$ 7,728,876
Net income	--	--	--	707,782	--	--	707,782
Exercise of stock options, net	71,000	7,100	178,323	--	15,837	(71,151)	114,272
Tax benefits related to stock options	--	--	6,582	--	--	--	6,582
BALANCE,							
December 31, 2005	3,261,148	326,115	9,345,896	(444,346)	411,335	(670,153)	8,557,512
Net income	--	--	--	647,137	--	--	647,137
Exercise of stock options, net	--	--	122,880	--	(76,788)	63,555	186,435
Stock-based compensation	--	--	35,922	--	--	--	35,922
Tax benefits related to stock options	--	--	61,040	--	--	--	61,040
Acquisition of treasury stock	--	--	--	--	30,907	(156,032)	(156,032)
BALANCE,							
December 31, 2006	3,261,148	326,115	9,565,738	202,791	365,454	(762,630)	9,332,014
Net income	--	--	--	662,138	--	--	662,138
Exercise of stock options	--	--	13,077	--	(12,000)	25,135	38,212
Stock-based compensation	--	--	87,224	--	--	--	87,224
Tax benefits related to stock options	--	--	2,833	--	--	--	2,833
Acquisition of treasury stock	--	--	--	--	15,218	(65,450)	(65,450)
BALANCE,							
December 31, 2007	3,261,148	$ 326,115	$ 9,668,872	$ 864,929	368,672	$ (802,945)	$ 10,056,971

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

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IMMUCELL CORPORATION

STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2005, 2006 and 2007

	2005	2006	2007
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 707,782	$ 647,137	$ 662,138
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	310,241	246,125	309,087
Amortization	333,381	260,167	479,809
Deferred income taxes	140,000	(101,000)	435,203
Tax benefits related to stock options	6,582	--	--
Stock-based compensation	--	35,922	87,224
Gain (loss) on disposal of fixed assets	(1,372)	6,958	6,594
Changes in:			
Receivables	(262,170)	76,048	(172,369)
Income taxes receivable/payable	21,715	196,023	(367,199)
Inventories	(36,419)	(85,093)	200,569
Prepaid expenses and other assets	(30,169)	17,305	(10,613)
Accounts payable	11,055	13,285	23,853
Accrued expenses	(15,833)	81,594	(57,189)
Deferred revenue	(420,016)	188,114	(1,247,550)
Net cash provided by operating activities	764,777	1,582,585	349,557
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property, plant and equipment	(185,129)	(209,921)	(1,527,825)
Proceeds from disposal of fixed assets	6,000	--	--
Maturities of short-term investments	3,436,934	5,784,065	5,850,341
Purchases of short-term investments	(4,637,080)	(7,099,659)	(4,803,885)
Net cash used for investing activities	(1,379,275)	(1,525,515)	(481,369)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Tax benefits related to stock options	--	61,040	2,833
Proceeds from exercise of stock options	114,272	186,435	38,212
Acquisition of treasury stock	--	(156,032)	(65,450)
Net cash provided by (used for) financing activities	114,272	91,443	(24,405)
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(500,226)	148,513	(156,217)
BEGINNING CASH AND CASH EQUIVALENTS	1,700,567	1,200,341	1,348,854
ENDING CASH AND CASH EQUIVALENTS	$ 1,200,341	$ 1,348,854	$ 1,192,637
CASH PAID FOR INCOME TAXES	$ 195,009	$ 230,850	$ 410,039
NON-CASH INVESTING AND FINANCING ACTIVITIES:			

Change in capital expenditures included in accounts payable	$ --	$ 155,042	$ (155,042)
Treasury stock acquired upon exercise of stock options	$ 75,496	$ 95,994	$ --

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

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS

1. BUSINESS OPERATIONS

ImmuCell Corporation (the Company) is an animal health biotechnology company primarily engaged in the development, manufacture and sale of products that improve the health and productivity of cows for the dairy and beef industry. The Company was originally incorporated in Maine in 1982 and reincorporated in Delaware in 1987, in conjunction with its initial public offering of common stock. The Company is subject to certain risks associated with its stage of development including dependence on key individuals, competition from other larger companies, the successful sales of existing products and the development and acquisition of additional commercially viable products with appropriate regulatory approvals, where applicable.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Cash, Cash Equivalents and Short-Term Investments

We consider all highly liquid investment instruments that mature within three months of their purchase dates to be cash equivalents. Cash equivalents are principally invested in securities backed by the U.S. government. Certain cash balances in excess of Federal Deposit Insurance Corporation (FDIC) limits of $100,000 per financial institution are maintained in money market accounts at financial institutions that are secured, in part, by the Securities Investor Protection Corporation. Amounts in excess of the FDIC limit of $100,000 per bank that are not invested in securities backed by the U.S. government aggregated $1,237,000 and $1,071,000 at December 31, 2006 and 2007, respectively. Short-term investments are classified as held to maturity and are comprised principally of certificates of deposits that mature in more than three months from their purchase dates and not more than twelve months from the balance sheet date and are held at different financial institutions that are insured by the FDIC within FDIC limits of $100,000 each.

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	As of December 31,		
	2006	2007	Decrease
Cash and cash equivalents	$ 1,349	$ 1,193	$ 156
Short-term investments	5,265	4,219	1,046
	$ 6,614	$ 5,412	$ 1,202

(b) Inventories

Inventories include raw materials, work-in-process and finished goods and are recorded at the lower of cost, on the first-in, first-out method, or market (net realizable value). Work-in-process and finished goods inventories include materials, labor and manufacturing overhead. Inventories consist of the following (in thousands):

	As of December 31,	
	2006	2007
Raw materials	$ 156	$ 182
Work-in-process	386	396
Finished goods	247	11

$ 789	$ 589

(c) Property, Plant and Equipment

We depreciate property, plant and equipment on the straight-line method by charges to operations in amounts estimated to expense the cost of the assets from the date they are first put into service to the end of the

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

estimated useful lives of the assets. The cost of the building, acquired in 1993, and the subsequent addition thereto, completed in 2001, are being depreciated through 2023. Related building improvements are depreciated over ten year periods. Large and durable fixed assets are depreciated over their useful lives that are generally estimated to be ten years. Other fixed assets and computer equipment are depreciated over their useful lives that are generally estimated to be five and three years, respectively.

(d) Intangible Assets

We amortize intangible assets on the straight-line method by charges to operations in amounts estimated to expense the cost of the assets from the date they are first put into service to the end of the estimated useful lives of the assets. The $250,000 acquisition of product rights related to **Wipe Out® Dairy Wipes** in December 1999 is being amortized to cost of sales over the ten year period ending in December 2009, and the related manufacturing rights acquired in 2001 for $45,000 are being amortized to cost of sales through December 2009. The $75,000 acquisition of product rights related to **MASTiK®** is being amortized to cost of sales through June 2008. Amortization expense relating to these intangible assets is expected to amount to approximately $35,000 in 2008 and the remaining $30,000 in 2009. No material changes are anticipated in the remaining useful lives of intangible assets.

In November 2004, we capitalized a payment of approximately $965,000 made to Nutrition 21, Inc. to buy out certain future milestone and royalty payment obligations relating principally to **Mast Out®**. In connection with Pfizer s termination of a product development and marketing agreement covering **Mast Out®**, we amortized the remaining balance of this asset during the third quarter of 2007. Product development expenses included such amortization expense amounting to approximately $293,000, $220,000 and $439,000 during the years ended December 31, 2005, 2006 and 2007, respectively.

We continually assess the realizability of these assets in accordance with Statement of Financial Accounting Standards (SFAS) No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets . If an impairment review is triggered, we evaluate the carrying value of long-lived assets by determining if impairment exists based on estimated undiscounted future cash flows over the remaining useful life of the assets and comparing that value to the carrying value of the assets. If the carrying value of the asset is greater than the estimated future cash flows, the asset is written down to its estimated fair value. The cash flow estimates that are used contain our best estimates, using appropriate and customary assumptions and projections at the time. We also review the estimated useful life of intangible assets at the end of each reporting period, making any necessary adjustments. Management believes that none of these assets were impaired as of December 31, 2007.

(e) Disclosure of Fair Value of Financial Instruments and Concentration of Risk

Financial instruments consist mainly of cash and cash equivalents, short-term investments, accounts receivable and accounts payable. Financial instruments that potentially subject the Company to concentrations of credit risk are principally cash, cash equivalents, short-term investments and accounts receivable. We invest our short-term investments in financial instruments that are insured by the FDIC. Concentration of credit risk with respect to accounts receivable is principally limited to certain customers to whom we make substantial sales. To reduce risk, we routinely assess the financial strength of our customers and, as a consequence, believe that our accounts receivable credit risk exposure is limited. We maintain an allowance for potential credit losses, but historically we have not experienced significant credit losses related to an individual customer or groups of customers in any particular industry or geographic area. The carrying amounts of our financial instruments approximate fair market value.

We believe that supplies and raw materials for the production of our products are available from more than one vendor or farm. Our policy is to maintain more than one source of supply for the components used in our products. However, there is a risk that we could have difficulty in efficiently acquiring essential supplies.

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

(f) Revenue Recognition

Revenues related to the sale of manufactured products are recorded when title and risk of loss have passed to the customer, which is at the time of shipment and when collectibility is reasonably assured. Non-refundable grant income is recognized as reimbursable expenses are incurred. Indirect costs which are billed to the government are subject to their review. Royalty income is recorded on the accrual basis based on sales as reported to us by our licensee pursuant to the terms of the agreement. Revenues from non-refundable upfront payments are deferred and recognized ratably over the period during which the earning process is completed.

We received a $1,500,000 up front payment from Pfizer in connection with the December 2004 product development and marketing agreement covering **Mast Out®**. During 2006, we received additional milestone payments aggregating $650,000. We had been recognizing this revenue from the date of receipt through December 31, 2008. In connection with Pfizer s termination of the agreement, the remaining deferred revenue was recognized during the third quarter of 2007. Accordingly, we recognized $455,000, $444,000 and $1,230,000 during the years ended December 31, 2005 and 2006, and 2007, respectively. The provisions of the Financial Accounting Standards Board s (FASB s) Emerging Issues Task Force No. 00-21, Accounting for Revenue Arrangements with Multiple Deliverables , were considered in connection with this transaction. See Note 10.

(g) Expense Recognition

Advertising costs are expensed when incurred, which is generally during the month in which the advertisement is published. Advertising expenses amounted to $189,000, $189,000 and $202,000 during the years ended December 31, 2005, 2006 and 2007, respectively. All product development expenses are expensed as incurred, as are all related patent costs.

(h) Income Taxes

We account for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes . This statement requires that we recognize a current tax liability or asset for current taxes payable or refundable and a deferred tax liability or asset for the estimated future tax effects of temporary differences and carryforwards to the extent they are realizable. In the ordinary course of business, there are transactions and calculations where the ultimate tax outcome is uncertain. In addition, we are subject to periodic audits and examinations by the IRS and other taxing authorities. Although we believe that our estimates are reasonable, actual results could differ from these estimates. See Note 4.

(i) Net Income Per Common Share

The basic net income per common share has been computed in accordance with Financial Accounting Standards Board (FASB) Statement No. 128, Earnings Per Share , by dividing net income by the weighted average number of common shares outstanding during the year. The diluted net income per common share reflects the potential dilution from outstanding stock options as shown below:

	Year Ended December 31,		
	2005	2006	2007
Weighted average number of shares outstanding during the period	2,823,599	2,888,128	2,897,488
Dilutive stock options	435,638	382,872	338,654
Shares that could have been repurchased with the proceeds from the dilutive stock options	(256,235)	(219,530)	(202,344)
Diluted number of shares outstanding during the period	3,003,002	3,051,470	3,033,797

Outstanding stock options not included in the calculation because the effect would be anti-dilutive	--	51,000	149,555

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

For additional disclosures regarding the outstanding common stock options, see Note 5(a) and (b).

(j) Use of Estimates

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

(k) Employee Stock-Based Compensation

Prior to January 1, 2006, we measured compensation related to employee stock-based compensation plans in accordance with the intrinsic value method of Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, and we elected to disclose the pro forma impact of accounting for stock-based compensation plans under the provisions of SFAS No. 123, *Accounting for Stock-Based Compensation* and SFAS No. 148, *Accounting for Stock-Based Compensation-Transition and Disclosure*. Accordingly, no stock-based employee compensation cost had been recognized for these plans prior to January 1, 2006. Had compensation cost for our stock plans been determined consistent with the provisions of these statements, our net income and basic and diluted net income per share for the year ended December 31, 2005 would have been reduced to the pro forma amounts indicated below:

	Year Ended December 31, 2005
Net income, as reported	$ 707,782
Pro forma stock-based employee compensation expense determined under the fair value based method, net of related tax effects	21,883
Pro forma net income	$ 685,899
Net income per share:	
Basic: as reported	$ 0.25
Basic: pro forma	$ 0.24
Diluted: as reported	$ 0.24
Diluted: pro forma	$ 0.23

See Note 5(a) and (b) for discussion of our stock-based compensation plans and assumptions used in determining the pro forma stock-based employee compensation above.

Effective January 1, 2006, we implemented the provisions of Revised Statement of Financial Accounting Standards No. 123, Share-Based Payments (SFAS 123R), using the modified prospective transition method. FAS 123R eliminates the ability to account for stock-based compensation transactions using APB Opinion No. 25 and generally requires us to recognize compensation expense for stock-based payments using the fair-value-based method. The fair value of each stock option grant has been estimated on the date of grant using the Black-Scholes option pricing model, as detailed in Note 5(b). Accordingly, we recorded $35,922 and $87,224 of compensation expense pertaining to stock-based compensation, which resulted in a reduction in net income of approximately $0.01 and $0.03 per diluted share (before the effect of income taxes), during the twelve month periods ended December 31, 2006 and 2007, respectively.

Prior to the adoption of SFAS No. 123R, we presented the tax savings resulting from tax deductions resulting from the exercise of stock options as an operating cash flow, in accordance with Emerging Issues Task

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

Force Issue No. 00-15, Classification in the Statement of Cash Flows of the Income Tax Benefit Received by a Company upon Exercise of a Nonqualified Employee Stock Option . SFAS No. 123R requires us to reflect gross tax savings resulting from tax deductions in excess of expense reflected in our financial statements as a financing cash flow.

(l) New Accounting Pronouncements

Effective January 1, 2007, we implemented the provisions of Financial Accounting Standards Board Interpretation No. 48, Accounting for Uncertainties in Income Taxes . FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise s financial statements in accordance with SFAS No. 109, Accounting for Income Taxes . The interpretation applies to all tax positions accounted for in accordance with Statement 109 and requires a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken, or expected to be taken, in an income tax return. Subsequent recognition, derecognition, and measurement is based on management s best judgment given the facts, circumstances and information available at the reporting date. The adoption of this Interpretation did not have a material impact on our financial condition, results of operations, earnings per share or cash flows.

Effective January 1, 2006, we implemented the provisions of Statement of Financial Accounting Standards No. 151, *Inventory Costs*, which did not have a material impact on our financial condition, results of operations, earnings per share or cash flows. This Statement amends the guidance in ARB No. 43, Chapter 4, Inventory Pricing, to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). Paragraph 5 of ARB 43, Chapter 4, previously stated that under some circumstances, items such as idle facility expense, excessive spoilage, double freight, and rehandling costs may be so abnormal as to require treatment as current period charges. This Statement requires that those items be recognized as current-period charges regardless of whether they meet the criterion of so abnormal. In addition, this Statement requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The adoption of this Statement did not have a material impact on our financial condition, results of operations, earnings per share or cash flows.

In December 2004, the FASB issued, Statement of Financial Accounting Standards No. 153, *Exchange of Nonmonetary Assets,* an amendment of APB Opinion No. 29. The guidance in APB Opinion No. 29, *Accounting for Nonmonetary Transactions*, is based on the principle that exchanges of nonmonetary assets should be measured based on the fair value of the assets exchanged. The guidance in that Opinion, however, included certain exceptions to that principle. This Statement amends Opinion No. 29 to eliminate the exception for nonmonetary exchanges of similar productive assets and replaces it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. A nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to change significantly as a result of the exchange. The provisions of this Statement were effective for nonmonetary asset exchanges occurring in fiscal periods beginning after June 15, 2005. The adoption of this Statement did not have a material impact on our financial condition, results of operations, earnings per share or cash flows.

In September 2006, the FASB issued No. 157, Fair Value Measures . SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and requires additional disclosures about fair value measurements. SFAS No. 157 applies to fair value measurements that are already required or permitted by other accounting standards, except for measurements of share-based payments and measurements that are similar to, but not intended to be, fair value and does not change existing guidance as to whether or not an instrument is carried at fair value. The provisions of SFAS No. 157 are effective for the specified fair value measures for financial statements issued for fiscal years beginning after November 15, 2007. We do not expect the adoption of this Statement to have a material impact on our financial condition, results of operations, earnings per share or cash flows.

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

In February 2007, the FASB issued SFAS No. 159, The Fair Value Option for Financial Assets and Financial Liabilities (SFAS No. 159) which permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. SFAS No. 159 will be effective for the Company effective January 2008. We do not expect this statement to have a material impact on our financial condition, results of operations, earnings per share or cash flows.

(m) Reclassifications

Certain prior year accounts have been reclassified to conform with the 2007 financial statement presentation.

3. ACCRUED EXPENSES

Accrued expenses consisted of the following (in thousands):

	As of December 31,	
	2006	**2007**
Professional fees	$ 53	$ 61
Payroll	108	119
Commission	44	--
Other	89	57
	$ 294	$ 237

4. INCOME TAXES

We account for income taxes in accordance with Statement of Financial Accounting Standards (SFAS) No. 109, *Accounting for Income Taxes*. This statement requires that we recognize a current tax liability or asset for current taxes payable or receivable and a deferred tax liability or asset for the estimated future tax effects of temporary differences and carryforwards to the extent they are realizable. We believe it is more likely than not that the deferred tax assets will be realized through future tax effects of temporary differences between book income and taxable income. Accordingly, we have not established a valuation allowance for the deferred tax assets. Our income tax expense aggregated $363,000 (33.9% of income before income taxes), $387,000 (37.4% of income before income taxes) and $482,000 (42.1% of income before income taxes) for the years ended December 31, 2005, 2006 and 2007, respectively. The income tax provision consists of the following (in thousands):

	Year Ended December 31,		
	2005	**2006**	**2007**
Current			
Federal	$ 161	$ 391	$ 34
State	60	96	11
Foreign	2	1	2
	223	488	47
Deferred			

Federal	116	(78)	340
State	24	(23)	95
	140	(101)	435
Total	$ 363	$ 387	$ 482

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

Total currently payable income taxes were reduced by the benefits related to stock options of approximately $7,000, $61,000 and $3,000 in 2005, 2006 and 2007, respectively. The actual income tax expense differs from the expected tax computed by applying the U.S. Federal corporate tax rate of 34% to income before income tax as follows (in thousands):

	Year Ended December 31,		
	2005	2006	2007
Computed expected tax expense	$ 364	$ 352	$ 389
State income taxes, net of federal benefit	56	48	70
Foreign tax on royalty income	2	1	2
Change in valuation allowance	(62)	--	--
Tax exclusion foreign sales and manufacturing activities	--	(24)	(3)
Share-based compensation	--	10	28
Other	4	--	(4)
Total income tax expense	$ 363	$ 387	$ 482

The significant components of our deferred tax assets and liabilities are as follows (in thousands):

	As of December 31,	
	2006	2007
Deferred tax assets (liabilities):		
Deferred revenue and other reserves	$ 504	$ 4
Product rights	196	352
Depreciation	(67)	(63)
Capitalized research and experimentation	240	171
Prepaid expenses and other	(24)	(49)
Deferred tax assets	$ 850	$ 415

We utilized approximately $62,000 of general business credits to offset taxable income in 2005.

In order to accelerate the utilization of available net operating loss carryforwards in advance of their expiration dates, we elected to increase income for federal income tax purposes by capitalizing research and experimentation expenditures aggregating $1,731,000 for our 2000 and 2001 tax returns. Accordingly, we recorded amortization of these capitalized expenditures of $90,000 in 2000 and $173,000 in each of the seven years ended December 31, 2007 for tax return purposes. We expect to amortize approximately $173,000 in both of the two years ending December 31, 2009 as well as $84,000 for the year ended December 31, 2010 for tax return purposes only. The $1,500,000 payment from Pfizer that we received in December 2004 was treated as taxable income in 2004, for tax return purposes only. The $965,000 payment made to Nutrition 21 in November 2004 was treated as an intangible asset and is being amortized over 15 years, for tax return purposes only.

The company files income tax returns in the U.S. federal jurisdiction and several state and foreign jurisdictions. With few exceptions, the Company is no longer subject to income tax examinations by tax authorities for years before 2004. We currently have no tax examinations in progress. We also have not paid additional taxes, interest or penalties as a result of tax examinations nor do we have any unrecognized tax benefits for any of the periods in the accompanying financial statements.

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

5. STOCKHOLDER S EQUITY

(a) Stock Option Grants Outside of Stock Option Plans

In April 1999, 31,100 non-qualified stock options were issued to each of the three then-serving executive officers at an exercise price of $1.31 per share, the then current market price of our common stock, vesting as to one-third in each of March 2000, 2001 and 2002. These options were granted outside of the stock option plans described below. In 2000, 20,734 of these options terminated when one of the officers separated from the Company. In September 2001, that former officer exercised 10,300 of these options and 66 of these options expired without being exercised. If not exercised, the 62,200 remaining outstanding options expire in April 2009. The aggregate intrinsic value of these outstanding options approximated $289,000 and $139,000 as of December 31, 2006 and 2007, respectively.

(b) Stock Option Plans

In May 1989, the stockholders approved the 1989 Stock Option and Incentive Plan (the 1989 Plan) pursuant to the provisions of the Internal Revenue Code of 1986, under which employees may be granted options to purchase shares of the Company s common stock at i) no less than fair market value on the date of grant in the case of incentive stock options and ii) no less than 85% of fair market value on the date of grant in the case of non-qualified stock options. Vesting requirements are determined by the Compensation and Stock Option Committee of the Board of Directors on a case by case basis. All options granted under the 1989 Plan expire no later than ten years from the date of grant. The 1989 Plan expired in March 1999, and no further options may be granted under the 1989 Plan. However, outstanding options under the 1989 Plan may be exercised in accordance with their terms.

In June 2000, the stockholders approved the 2000 Stock Option and Incentive Plan (the 2000 Plan) pursuant to the provisions of the Internal Revenue Code of 1986, under which employees and certain service providers may be granted options to purchase shares of the Company s common stock at i) no less than fair market value on the date of grant in the case of incentive stock options and ii) no less than 85% of fair market value on the date of grant in the case of non-qualified stock options. Vesting requirements are determined by the Compensation and Stock Option Committee of the Board of Directors on a case by case basis. Originally, 250,000 shares of common stock were reserved for issuance under the 2000 Plan. The stockholders of the Company approved an increase in this number to 500,000 shares in June 2001. All options granted under the 2000 Plan expire no later than ten years from the date of grant. The 2000 Plan expires in June 2010, after which date no further options may be granted under the 2000 Plan. However, any outstanding options under the 2000 Plan may be exercised in accordance with their terms.

In June 2000, the stockholders approved the 2000 Stock Option Plan for Outside Directors (the 2000 Outside Director Plan) pursuant to the provisions of the Internal Revenue Code of 1986, under which each of the five, then-serving outside directors of the Company was automatically granted a non-qualified stock option to purchase 15,000 shares of common stock at its fair market value on the date the 2000 Outside Director Plan was approved by the stockholders. Directors who are newly elected to the Board subsequent to June 2000 receive an automatic grant of an option to purchase 15,000 shares, at fair market value on the date when such directors are first elected to the Board by the stockholders. One-third of the options subject to the grant vest on the date that the director is re-elected to the Board by the stockholders; an additional 5,000 options vest on the second date that the director is re-elected to the Board by the stockholders; and the remaining 5,000 options vest on the third date that the director is re-elected to the Board by the stockholders. Directors of the Company are elected at each Annual Meeting of Stockholders for one-year terms. The 2000 Outside Director Plan expired in June 2005, after which date no further options may be granted under the 2000 Outside Director Plan. The last 15,000 options under the 2000 Outside Director Plan were exercised during 2006.

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

Activity under the stock option plans described above was as follows:

	1989 Plan	2000 Plan	2000 Outside Director Plan	Weighted Average Exercise Price	Aggregate Intrinsic Value
Balance at December 31, 2004	132,672	233,767	60,000	$ 2.94	
Grants	--	51,000	--	$ 4.52	
Terminations	--	(15,334)	(15,000)	$ 3.80	
Exercises	(43,000)	(667)	(30,000)	$ 2.58	
Balance at December 31, 2005	89,672	268,766	15,000	$ 3.16	
Grants	--	115,000	--	$ 5.60	
Terminations	--	(26,166)	--	$ 4.37	
Exercises	(35,000)	(40,600)	(15,000)	$ 3.12	
Balance at December 31, 2006	54,672	317,000	--	$ 3.84	$ 784,000
Grants	--	44,000	--	$ 4.98	
Terminations	(11,872)	(8,000)	--	$ 3.58	
Exercises	(1,000)	(11,000)	--	$ 3.18	
Balance at December 31, 2007	41,800	342,000	--	$ 4.01	$ (175,000)
Exercisable at December 31, 2007	41,800	188,331	--	$ 3.15	$ 92,000
Reserved for future grants	--	70,667	--		

At December 31, 2007, 446,000 shares of common stock were reserved for future issuance under all outstanding stock options described above, and an additional 70,667 common shares were reserved for the potential issuance of stock options in the future under the 2000 Plan. The weighted average remaining life of the options outstanding under the 1989 Plan and the 2000 Plan as of December 31, 2007 was approximately five years and one month. The exercise price of the options outstanding and of the options exercisable as of December 31, 2007 ranged from $1.31 to $7.00 per share. Of the 115,000 options granted during 2006, 64,000 had exercise prices between $4.98 and $5.40 per share, 45,000 had exercise prices between $5.80 and $6.04 and 6,000 had exercise prices between $6.86 and $7.00. Of the 44,000 options granted during 2007, 35,000 had exercise prices between $5.25 and $5.74 per share and 9,000 had an exercise price of $3.81 per share. The aggregate intrinsic value of options exercised during 2006 approximated $267,000. The aggregate intrinsic value of options exercised during 2007 approximated $28,000. The weighted-average grant date fair values of options granted during 2005, 2006 and 2007 were $1.03, $1.66 and $2.31 per share, respectively. The fair value of each stock option grant has been estimated on the date of grant using the Black-Scholes option pricing model, for the purpose discussed in Note 2(k), with the following weighted-average assumptions:

	2005	2006	2007
Risk-free interest rate	4.2%	4.9%	4.4%
Dividend yield	0	0	0
Expected volatility	25.7%	35.3%	46.7%
Expected life	3 years	3 years	5 years

As of December 31, 2007, total unrecognized compensation costs related to non-vested stock-based compensation arrangements aggregated approximately $169,000. That cost is expected to be recognized at a declining rate through December 31, 2010, which represents the remaining vesting period of the outstanding non-vested stock options.

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

(c) Common Stock Rights Plan

In September 1995, the Board of Directors of the Company adopted a Common Stock Rights Plan and declared a dividend of one common share purchase right (a Right) for each of the then outstanding shares of the common stock of the Company. Each Right entitles the registered holder to purchase from the Company one share of common stock at an initial purchase price of $70.00 per share, subject to adjustment. The description and terms of the Rights are set forth in a Rights Agreement between the Company and American Stock Transfer & Trust Co., as Rights Agent.

The Rights become exercisable and transferable apart from the common stock upon the earlier of i) 10 days following a public announcement that a person or group (acquiring person) has, without the prior consent of the Continuing Directors (as such term is defined in the Rights Agreement), acquired beneficial ownership of 15% or more of the outstanding common stock, or ii) 10 days following commencement of a tender offer or exchange offer the consummation of which would result in ownership by a person or group of 20% or more of the outstanding common stock (the earlier of such dates being called the Distribution Date).

Upon the acquisition of 15% or more of the Company s common stock by an acquiring person, the holder of each Right not owned by the acquiring person would be entitled to purchase common stock having a market value equal to two times the exercise price of the Right (i.e., at a 50% discount). If, after the Distribution Date, the Company should consolidate or merge with any other entity and the Company were not the surviving company, or, if the Company were the surviving company, all or part of the Company s common stock were changed or exchanged into the securities of any other entity, or if more than 50% of the Company s assets or earning power were sold, each Right would entitle its holder to purchase, at the Rights then-current purchase price, a number of shares of the acquiring company s common stock having a market value at that time equal to twice the Right s exercise price.

At any time after a person or group becomes an acquiring person and prior to the acquisition by such person or group of 50% or more of the outstanding common stock, the Board of Directors of the Company may exchange the Rights (other than Rights owned by such person or group which have become void), in whole or in part, at an exchange ratio of one share of common stock per Right (subject to adjustment). At any time prior to 14 days following the date that any person or group becomes an acquiring person (subject to extension by the Board of Directors), the Board of Directors of the Company may redeem the then outstanding Rights in whole, but not in part, at a price of $.005 per Right, subject to adjustment.

On June 8, 2005, our Board voted to authorize an amendment of the Rights Agreement to extend the Final Expiration Date by an additional three years, to September 19, 2008. As of June 30, 2005, we entered into an amendment to the Rights Agreement with the Rights Agent reflecting such extension. No other changes were made to the terms of the Rights or the Rights Agreement. The Rights will expire on the earlier of i) the close of business on September 19, 2008, or ii) the time at which the Rights are redeemed by the Company.

6. COMMITMENTS AND CONTINGENT LIABILITIES

In March 2003, we entered into an agreement with a vendor that has offered to perform certain manufacturing services for us relating to **Mast Out®**. The agreement with the vendor provides for a termination payment of $100,000 in certain circumstances. We have accrued no liability for any such termination in the future.

Our By-Laws, as amended, in effect provide that the Company will indemnify its officers and directors to the maximum extent permitted by Delaware law. In addition, we make similar indemnity undertakings to each director through a separate indemnification agreement with that director. The maximum payment that we may be

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

required to make under such provisions is theoretically unlimited and is impossible to determine. We maintain directors and officers liability insurance, which may provide reimbursement to the Company for payments made to, or on behalf of, officers and directors pursuant to the indemnification provisions. Our indemnification obligations were grandfathered under the provisions of FIN No. 45. Accordingly, we have recorded no liability for such obligations as of December 31, 2007. Since our incorporation, we have had no occasion to make any indemnification payment to any of our officers or directors for any reason.

We enter into agreements with third parties in the ordinary course of business under which we are obligated to indemnify such third parties for and against various risks and losses. The precise terms of such indemnities vary with the nature of the agreement. In many cases, the Company limits the maximum amount of its indemnification obligations, but in some cases those obligations may be theoretically unlimited. We have not incurred material expenses in discharging any of these indemnification obligations, and based on our analysis of the nature of the risks involved, we believe that the fair value of these agreements is minimal. Accordingly, we have recorded no liabilities for these obligations as of December 31, 2007.

We entered into an employment contract with our president and chief executive officer, which could require us to pay three months salary as severance pay depending upon the circumstances of any termination of employment of this key employee.

The development, manufacturing and marketing of human and animal health care products entails an inherent risk that liability claims will be asserted against us. We feel that we have reasonable levels of liability insurance to support our operations.

7. SEGMENT AND SIGNIFICANT CUSTOMER INFORMATION

We principally operate in the business segment described in Note 1. Pursuant to SFAS No. 131, Disclosures about Segments of an Enterprise and Related Information , we operate in one reportable business segment, that being the development, acquisition, manufacture and sales of products that improve the health and productivity of cows for the dairy and beef industries. The significant accounting policies of this segment are described in Note 2.

Our primary customers for the majority of our product sales (83%, 85% and 79% for the years ended December 31, 2005, 2006 and 2007, respectively) are in the U.S. dairy and beef industry. Revenues derived from foreign customers, who are also in the dairy and beef industry, aggregated 12%, 12% and 19% of our total product sales for the years ended December 31, 2005, 2006 and 2007, respectively. Sales to significant customers as a percentage of total product sales are detailed in the following table:

	Year Ended December 31,		
	2005	2006	2007
Walco International, Inc.	18%	18%	26%
Vet Pharm, Inc.	*	10%	10%

Accounts receivable due from significant customers amounted to the percentages of total trade accounts receivable as detailed in the following table:

	As of December 31,	
	2006	2007
Walco International, Inc.	15%	33%
Lextron, Inc.	10%	*
TCS Biosciences, Ltd.	23%	16%

* Amount is less than 10% of Company totals.

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

8. EMPLOYEE BENEFITS

We have a 401(k) savings plan in which all employees completing one year of service with the Company (working at least 1,000 hours) are eligible to participate. Participants may contribute up to the maximum amount allowed by the Internal Revenue Service. We match 50% of each employee s contribution to the plan up to a maximum match of 4% of each employee s base compensation. Under this matching contribution program, we paid approximately $32,000, $33,000 and $33,000 to the plan for the years ended December 31, 2005, 2006 and 2007, respectively.

9. UNAUDITED QUARTERLY FINANCIAL DATA

The following tables present the quarterly information for fiscal years 2005, 2006 and 2007 (in thousands, except per share amounts):

	Three Months Ended			
	March 31	June 30	September 30	December 31
	(In thousands, except per share amounts)			
Fiscal 2005:				
Product sales	$ 1,428	$ 848	$ 783	$ 1,174
Total revenues	1,596	984	1,035	1,368
Gross margin	867	499	516	718
Product development expenses	314	253	358	345
Income before income taxes	434	135	185	317
Net income	259	79	109	260
Net income per common share:				
Basic	$ 0.09	$ 0.03	$ 0.04	$ 0.09
Diluted	$ 0.09	$ 0.03	$ 0.04	$ 0.09
Fiscal 2006:				
Product sales	$ 1,438	$ 749	$ 1,059	$ 1,060
Total revenues	1,544	842	1,193	1,223
Gross margin	929	363	593	538
Product development expenses	235	231	237	264
Income before income taxes	509	32	291	202
Net income	306	16	171	155
Net income per common share:				
Basic	$ 0.11	$ 0.01	$ 0.06	$ 0.05
Diluted	$ 0.10	$ 0.01	$ 0.06	$ 0.05
Fiscal 2007:				
Product sales	$ 1,509	$ 791	$ 983	$ 1,490
Total revenues	1,675	959	1,932	1,503
Gross margin	878	280	506	839
Product development expenses	266	294	589	430
Income (loss) before income taxes	508	(83)	605	115
Net income (loss)	297	(60)	354	72
Net income (loss) per common share:				
Basic	$ 0.10	$ (0.02)	$ 0.12	$ 0.02
Diluted	$ 0.10	$ (0.02)	$ 0.12	$ 0.02

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IMMUCELL CORPORATION

NOTES TO AUDITED FINANCIAL STATEMENTS (Continued)

10. LICENSING AND TECHNOLOGY LICENSING REVENUE

Revenue from non-refundable payments aggregating $2,150,000 paid by Pfizer in connection with a product development and marketing agreement covering **Mast Out®** was deferred when the cash was received. We recognized this revenue as technology licensing revenue from December 2004 to July 2007, while this technology was licensed to Pfizer. In July 2007, Pfizer elected to terminate its product development and marketing agreement covering **Mast Out®**. Accordingly, in the third quarter of 2007, we recognized the remaining deferred income of $931,000 and wrote off the remaining unamortized cost of associated technology rights of $329,000 acquired in November 2004. See Note 2(d). The product rights and related data have been returned to us, and we are continuing the product development effort. Technology licensing revenue included the recognition of the related deferred revenue amounting to approximately $455,000 and $444,000 and $1,230,000 during the years ended December 31 2005, 2006 and 2007, respectively. Technology licensing revenue also included earnings under a supplemental agreement aggregating $225,000 to supply and test additional clinical trial material for Pfizer. Most of our work (approximately 84% or $190,000) on that supplemental agreement was performed during the six months ended December 31, 2005. We recognized technology licensing revenue of $190,000, $18,000 and $17,000 during the years ended December 31, 2005, 2006 and 2007, respectively, related to this supplemental agreement.

11. COMMON STOCK

During March 2006, two officers (both of whom are also directors) exercised stock options covering an aggregate of 24,000 shares of common stock. The exercise of these options was paid for principally with a stock-for-stock surrender of 13,812 shares of previously owned common stock with a fair market value of $95,994 at the time of exercise. During the twelve month period ended December 31, 2006, other employees and one outside director exercised stock options covering the aggregate of 66,600 shares. These options were exercised for cash, resulting in total proceeds of $186,435. During the twelve month period ended December 31, 2007, employees and one outside director exercised stock options covering the aggregate of 12,000 shares. These options were exercised for cash, resulting in total proceeds of $38,212.

In April 2003, we announced that our Board of Directors had approved a plan to repurchase up to 100,000 shares of our common stock as market conditions warrant. In August 2007, our Board of Directors voted to discontinue the plan, determining that the funds available for repurchases could be better utilized to support increased product development activities at this time. Repurchases under the plan were made from time to time at the discretion of management. The maximum of 100,000 shares represented approximately 3.7% of our outstanding common stock as of March 31, 2003. Before this plan was terminated, we repurchased the aggregate of 52,025 shares of our common stock at a total cost of approximately $233,749 (average purchase price of $4.49 per share).

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IMMUCELL CORPORATION

SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the Registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

IMMUCELL CORPORATION

Date: March 24, 2008 By: /s/ Michael F. Brigham
Michael F. Brigham

President, Chief Executive Officer and Treasurer

POWER OF ATTORNEY

We, the undersigned directors and officers of ImmuCell Corporation hereby severally constitute and appoint Michael F. Brigham our true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for us and in our stead, in any and all capacities, to sign any and all amendments to this report and all documents relating thereto, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing necessary or advisable to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or to be done by virtue hereof.

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Date: March 20, 2008 By: /s/ Michael F. Brigham
Michael F. Brigham

President, Chief Executive Officer,

Treasurer and Director

Date: March 20, 2008 By: /s/ Robert C. Bruce
Robert C. Bruce, Director

Date: March 20, 2008 By: /s/ Joseph H. Crabb
Joseph H. Crabb, Ph.D., Director

Date: March 20, 2008 By: /s/ William H. Maxwell
William H. Maxwell, M.D., Director

Date: March 20, 2008 By: /s/ Linda Rhodes
Linda Rhodes, VMD, Ph.D., Director

Date: March 20, 2008 By: /s/ Jonathan E. Rothschild
Jonathan E. Rothschild, Director

Date: March 20, 2008 By: /s/ Mitchel Sayare

Mitchel Sayare, Ph.D., Director

Date: March 20, 2008

By: /s/ David S. Tomsche
David S. Tomsche, DVM, Director

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IMMUCELL CORPORATION

EXHIBIT INDEX

Exhibit 23	Consent of Baker Newman & Noyes, LLC.
Exhibit 31	Rule 13a-14(a) Certifications.
Exhibit 32	Section 1350 Certifications.