FORM 10-K

VERENIUM CORP - VRNM

Filed: March 17, 2008 (period: December 31, 2007)

Annual report which provides a comprehensive overview of the company for the past year

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2007; or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 000-29173

VERENIUM CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**22-3297375**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
55 Cambridge Parkway, Cambridge, MA	**02142**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (617) 674-5300

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.001 par value	**The NASDAQ Stock Market, LLC**

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

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

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer or a smaller reporting company.

Large accelerated filer ☐ Accelerated filer ☒
Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of Act). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the Registrant as of June 29, 2007 was $192.4 million.

*The Registrant has no non-voting stock outstanding.

The number of shares outstanding of the Registrant's common stock was 63,425,296 as of March 13, 2008. The Registrant has no non-voting stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement for the Registrant's Annual Meeting of Stockholders to be filed with the Commission on or before April 29, 2008 are incorporated by reference into Part III of this annual report on Form 10-K. With the exception of those portions that are specifically incorporated by reference into this annual report on Form 10-K, such proxy statement shall not be deemed filed as part of this report or incorporated by reference herein.

* Based on the closing price of the Registrant's common stock on the Nasdaq Global Market on June 29, 2007 of $5.07 per share. Excludes the common stock held by executive officers, directors and stockholders whose ownership exceeded 10% of the common stock outstanding at June 29, 2007. This calculation does not reflect a determination that such persons are affiliates for any other purposes.

VERENIUM CORPORATION

FORM 10-K

For the Year Ended December 31, 2007

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Forward Looking Statements

This report contains statements that are "forward-looking" and involve a high degree of risk and uncertainty.

Forward looking statements applicable to our business generally include statements related to:

- our ongoing integration of the Celunol business and the benefits to be derived from the merger;
- the potential technological, strategic and commercial advantages and benefits created by the merger with Celunol;
- the potential value for our stockholders created by the merger with Celunol;
- our estimates regarding market sizes and opportunities, as well as our future revenue, product-related revenue, profitability and capital requirements;
- our anticipated use of proceeds from our recent financing activities;
- the length of time that we will be able to fund our operations with existing cash;
- our expected cash needs and our ability to access future financing;
- our ability to continue as a going concern through 2008;
- our expected future research and development expenses, sales and marketing expenses, and selling, general and administrative expenses;
- the effect on our business and financial results of governmental regulation and programs;
- our plans regarding future research, product development, business development, commercialization, growth, independent project development, collaboration, licensing, intellectual property, regulatory and financing activities;
- our results of operations, financial condition and businesses, and products and product candidates under development;
- investments in our core technologies and in our internal product candidates;
- the opportunities in our target markets and our ability to exploit them;
- our plans for managing the growth of our business;
- the benefits to be derived from our current and future strategic alliances;
- our anticipated revenues from collaborative agreements; grants and licenses granted to third parties;
- the benefits to be derived from our strategic reorganization in 2006;
- our ability to repay our outstanding debt;
- our exposure to market risk;
- the impact of outstanding litigation matters on our operations and financial results;
- our ability to remediate the material weakness in internal controls over financial reporting as more fully described in Item 9A of this annual report on Form 10-K; and,
- the effect of critical accounting policies on our financial results.

Forward looking statements applicable to our biofuels business include statements related to:

- potential growth in the use of ethanol, including cellulosic ethanol, the economic prospects for the ethanol industry and cellulosic ethanol and the advantages of cellulosic ethanol versus ethanol and other fuel sources;
- the development and construction of our demonstration-scale facility and the continued development of our pilot facility;

- the financing, development and construction of commercial-scale cellulosic ethanol facilities;
- our ability to use multiple feedstocks to produce cellulosic ethanol;

- the benefits to be derived from our vertical integration strategy within biofuels;

Forward looking statements applicable to our specialty enzymes business include statements related to:

- our ability to increase our product revenue and improve product gross margins;

- our ability to maintain good relationships with the companies with whom we contract for the manufacture of certain of the products in our specialty enzymes business; and

- our plans for our discontinued programs and products, including our pharmaceutical programs.

Such statements are prospective, are only predictions and reflect our expectations and assumptions as of the date of this annual report on Form 10-K based on currently available operating, financial, and competitive information. The actual events or results may differ materially from those projected in such forward-looking statements. Risks and uncertainties and the occurrence of other events could cause actual events or results to differ materially from these predictions. The risk factors set forth below in Item 1A entitled "Risk Factors" should be considered carefully in evaluating us and our business. These forward-looking statements speak only as of the date of this annual report on Form 10-K. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

We use market data and industry forecasts throughout this report. We have obtained this information from internal surveys, market research, publicly available information, and industry publications. Industry publications generally state that the information they provide has been obtained from sources believed to be reliable but that the accuracy and completeness of such information is not guaranteed. Similarly, we believe that the surveys and market research we or others have performed are reliable, but we have not independently verified this information. We do not represent that any such information is accurate.

Trademarks

Diversa, Cottonase, DirectEvolution, Fuelzyme, GigaMatrix, Luminase, PathwayLibraries, Purifine and Pyrolase are our registered trademarks. Celunol, GeneReassembly, Gene Site Saturation Mutagenesis, GSSM, SingleCell, Tunable GeneReassembly, and Verenium are our trademarks. Quantum is a trademark of Syngenta Animal Nutrition. Bayovac is a trademark of Bayer Animal Health. This report also refers to trade names and trademarks of other organizations, each of which is the property of its respective owner.

PART I

ITEM 1. BUSINESS.

Overview

We were incorporated in Delaware in December 1992 under the name Industrial Genome Sciences, Inc. In August 1997, we changed our name to Diversa Corporation. On June 20, 2007, we completed a merger transaction with Celunol Corp. The combined company, which has been renamed Verenium Corporation, possesses a portfolio of specialty enzyme products and is developing technical and operational capabilities designed to enable the production of low-cost, biomass-derived sugars for a number of major industrial applications, including the commercialization of biofuels. In connection with the corporate name change, we also changed our NASDAQ ticker symbol from "DVSA" to "VRNM" and began trading under the new ticker symbol effective June 21, 2007.

We believe that the merger of Diversa and Celunol has enabled us to accelerate the development of an economical process for producing cellulosic ethanol, and that the combined company has the following potential advantages:

- We believe that the addition of Celunol's assets, technologies and skills to Diversa's technologies and expertise has both (i) provided important operating plant assets which will accelerate the testing and

development of these novel enzyme cocktails and (ii) provided additional components for the accelerated development of biomass-based biorefineries using a variety of feedstocks and incorporating Diversa's novel enzyme cocktails

- We believe that Diversa's technologies and expertise has provided differentiated, stable and economical enzyme cocktails tuned to each specific biomass feedstock and tailored for any pretreatment method. We believe that this ability to produce specific and economical enzyme cocktails, coupled with Celunol's assets and strengths, will accelerate our penetration of the biofuels marketplace.

Since our merger with Celunol on June 20, 2007, we have operated in two business segments, biofuels and specialty enzymes. Our biofuels business segment operates through our wholly-owned subsidiary, Verenium Biofuels Corporation, and is focused on developing unique technical and operational capabilities designed to enable the production and commercialization of biofuels, in particular ethanol produced from cellulosic biomass. We believe the most significant near-term commercial opportunity for our biofuels business segment is the large-scale commercial production of cellulosic ethanol derived from multiple biomass feedstocks. Our specialty enzymes segment develops high performance enzymes for use within the alternative fuels, specialty industrial processes, and animal nutrition and health markets to enable higher throughput, lower costs, and improved environmental outcomes. We believe the most significant near-term commercial opportunity for our specialty enzymes business segment will be derived from continued sales growth, and related profit margin improvement, from our existing portfolio of enzyme products.

Our biofuels and specialty enzymes business are both supported by a research and development team with expertise in gene discovery and optimization, cell engineering, bioprocess development, biochemistry and microbiology. Over the past 15 years, our research and development team has developed a proprietary technology platform that has enabled us to apply advancements in science to discovering and developing unique solutions in complex industrial or commercial applications. To date, we have dedicated substantial resources to the development of our proprietary technologies, which include capabilities for sample collection from the world's microbial populations, generation of DNA libraries, screening of these libraries using ultra high-throughput methods capable of analyzing more than one billion genes per day, and optimization based on our gene evolution technologies. We have continued to shift more of our resources from technology development to commercialization efforts for our existing and future products. While our technologies have the potential to serve many large markets, our key areas of focus for internal product development are (i) integrated solutions for the production of cellulosic biofuels, such as cellulosic ethanol, and (ii) specialty enzymes for alternative, specialty industrial processes, and animal nutrition and health. We have current collaborations and agreements with market leaders, such as BASF, Bunge Oils, Cargill Health and Food Technologies, and Syngenta AG, each of which complement our internal product development efforts.

We expect to continue to invest heavily in these commercialization efforts, and to expand our investment in technology and enzyme development, primarily in the area of biofuels. We believe this investment will not only benefit our efforts to advance the commercialization of cellulosic ethanol within our biofuels business unit, but will also enable us to create additional enzyme commercialization opportunities within our specialty enzymes unit that are focused on external applications for the broader biofuels industry.

We have a substantial intellectual property estate comprising more than 300 issued patents and more than 400 patent applications as of February 2008. We believe that we can leverage our intellectual property estate to enhance and improve our technology development and commercialization efforts across both business units while maintaining protection of our key intellectual property assets.

Our Strategy

The key elements of our corporate strategy are to:

Develop integrated solutions for the emerging cellulosic ethanol industry for use in production facilities that we own and operate, as well as those of third-party licensees. We intend to use our leadership position to develop novel, high-performance enzymes, and to advance our process development capabilities at our pilot and demonstration-scale facilities in Jennings, Louisiana to exploit opportunities in the developing market for the production of cellulosic ethanol. We have established our business model based upon the belief that owning and managing cellulosic ethanol production facilities in conjunction with strategic partners will allow us to create economic value by incorporating our scientific and engineering skills into the production facilities.

Establish a sustainable, high-growth, profitable specialty enzyme business. Our specialty enzyme products and product candidates target high-value applications where we believe our enzyme discovery and optimization technologies can deliver superior, proprietary solutions. We believe our combination of independent and partnered products is positioned to generate substantial product revenues at attractive gross profit margins. In 2007, we generated approximately $26 million in such revenues, an increase of more than 60% over 2006. This also represents an increase of more than 700% compared to 2003, the first year we began selling enzyme products. We hope to achieve increased product sales and profit margins to support future growth and profitability continued growth of our portfolio of products sold directly by us and by our partners.

The key elements of our strategy within our biofuels business are to:

Provide an end-to-end solution for the production of cellulosic ethanol from a broad variety of feedstocks for incorporation into our facilities and those of third-party licensees. We are developing fully-integrated cellulosic ethanol production capabilities at our pilot and demonstration-scale facilities in Jennings, Louisiana to validate our production economics. We believe this will support commercial development of cost-effective end-to-end solutions for the production of ethanol from a variety of feedstocks, comprising:

- pre-treatment of biomass to make the biomass fibers accessible to enzymes;
- enzyme cocktails to break down biomass to its constituent five-carbon and six-carbon sugars; and
- fermentation organisms to convert the two types of sugars into fuel ethanol.

We intend to use our integrated solutions, our ongoing research and development efforts, and our process improvements to support our strategy to own and manage, together with certain strategic partners, cellulosic ethanol production facilities throughout the United States, and to make our technologies and know-how available to potential licensees throughout the world.

Be a leader in developing a cost-effective multi-feedstock commercial cellulosic ethanol production process. We believe that early cellulosic ethanol commercialization could provide significant benefits in setting standards for the emerging cellulosic ethanol industry, giving us early access to worldwide business opportunities, and attracting important scientific and business talent, among other potential benefits. While our costs of production of cellulosic ethanol may initially be higher than ethanol produced from sugar or corn, a combination of significantly lower feedstock costs for cellulosic biomass, as well as production process cost improvements have the potential to substantially reduce total production costs for cellulosic ethanol to levels well below that of ethanol produced from grain such as corn. Corn is currently the primary feedstock for ethanol production in the United States.

The key elements of our strategy within our specialty enzyme business are to:

Deploy our enzyme technologies across diverse markets that represent unique and large commercial opportunities. We use our enzyme technologies to develop commercial solutions for a broad range of applications within the three focus areas for our enzyme business—alternative fuels, specialty industrial processes, and animal nutrition and health. These markets are largely served by a small number of large, well-established providers. We attempt to work collaboratively with those large industrial companies to develop

differentiated, high performance enzyme solutions for their target markets, and to leverage their well-developed distribution capabilities to better exploit commercial opportunities. We believe that this multiple-market approach gives us the ability to broadly apply our unique enzyme development and manufacturing capabilities while minimizing commercialization risk.

Commercialize additional enzyme products. Our technologies can be applied to develop products for a wide range of applications within the alternative fuels, specialty industrial processes, and animal nutrition and health markets, where development costs are lower and regulatory cycles are shorter compared to those for other more highly regulated markets such as the pharmaceutical industry. In addition to our internal product development efforts, we have formed collaborations with several partners. To date, we have commercialized ten products independently and four products with our partners and have several early- to late-stage candidates that we and/or our partners expect to be commercialized in the next several years.

Utilize strategic collaborations to enable the development of a broad portfolio of enzyme products. We have identified key market segments where we intend to develop enzyme products through strategic alliances. Our established criteria for entering into such alliances, include:

- commercial revenue opportunity and novelty of the product(s);
- required investment;
- estimated time to market;
- regulatory hurdles;
- infrastructure requirements; and
- industry-specific expertise necessary for successful commercialization.

We believe that these alliances allow us to utilize our partners' marketing and distribution networks, share the investment risk, and access additional resources to expand our product portfolio and market opportunities. In entering these agreements, we typically seek to obtain a combination of technology access fees, research support payments, milestone payments, license or commercialization fees, and royalties or profit sharing income from the commercialization of products resulting from these alliances.

Protect and enhance our technology leadership position for the development of novel enzymes. We believe that our particular scientific, manufacturing, process engineering and technology capabilities represent a significant, sustainable competitive advantage relative to our competitors which we expect to maintain and extend. These capabilities include an end-to-end enzyme product solution, consisting of:

- access to novel genetic material;
- several technologies capable of screening more than a billion genes per day;
- multiple evolution technologies for optimizing enzymes;
- manufacturing know-how and capabilities; and
- development of heterologous expression systems which allow for a broader range of organisms from which to develop product candidates.

Our Business Segments—Biofuels and Specialty Enzymes

Our Biofuels Business

Biofuels Industry Overview

Biofuels are liquid fuels derived from agricultural and other natural or renewable sources. These fuels are used to complement the world's supply of petroleum and other fossil fuels. A variety of factors contribute to an increasing awareness of and demand for biofuels including, but not limited to, the following:

- Macroeconomic factors affecting the global supply of, and demand for and price of oil, including significantly increased demand for oil from developing countries whose economies are growing at high rates, such as China and India, coupled with uncertain supplies of oil from sources throughout the world;

- Policies and initiatives developed across the world aimed at reducing dependence on imported sources of oil, particularly from countries and regions that have exhibited the greatest level of instability;

- Increasing awareness and incorporation of "flexible fuel vehicles," or FFVs, into the world auto supply that are capable of operating on various blends of gasoline and ethanol; and

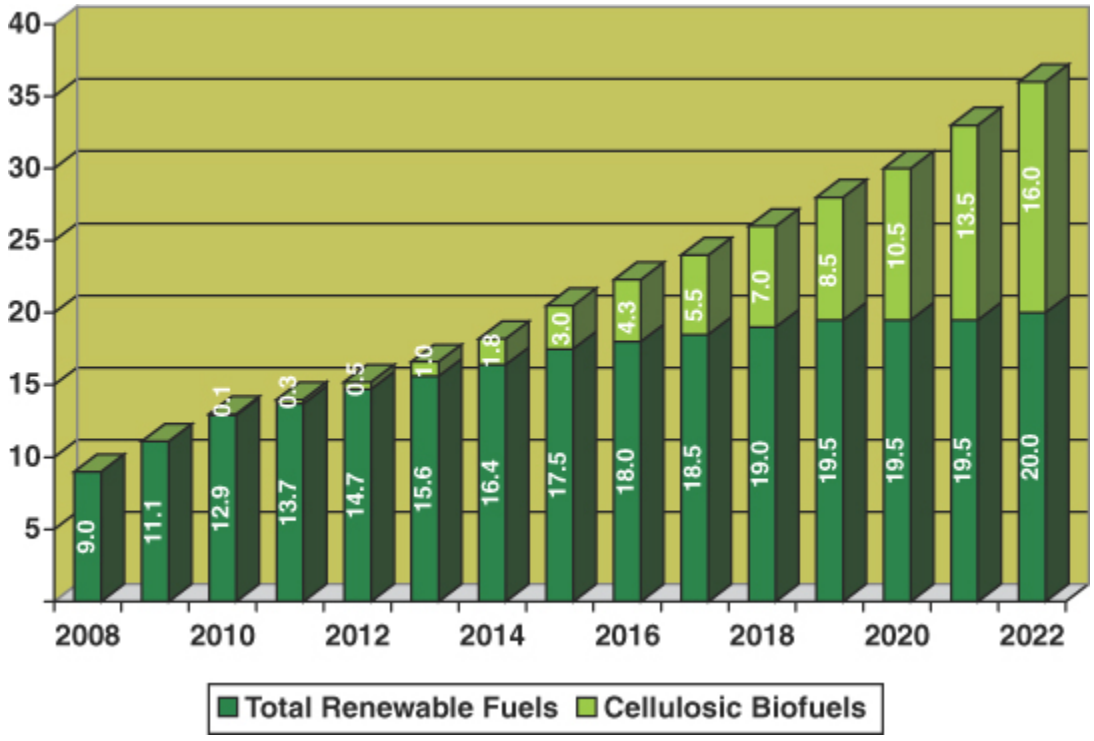
- Broadening development of the required infrastructure to support FFVs, including expansion of distribution channels and retrofitting wholesale and retail points of distribution.

Of all of the alternative fuels, or biofuels, that are sold or are being developed, the most significant market is that for fuel ethanol. Within the fuel ethanol market, the most attractive current or future opportunities for our biofuels business are for fuel ethanol derived from cellulosic biomass, otherwise known as "cellulosic ethanol."

On December 19, 2007, the Energy Independence and Security Act of 2007, or EISA, was signed into law. This comprehensive energy legislation amends the Renewable Fuels Standard, or RFS, which was signed into law in 2005. The amended RFS mandates minimum annual usage of 9 billion gallons of renewable fuel in 2008, growing to 36 billion gallons by 2022, including 16 billion gallons of cellulosic biofuels. At current ethanol prices of approximately $2.30-$2.35 per gallon, this would translate into an addressable market of at least $37 billion annually, not including market opportunities for cellulosic ethanol outside of the United States.

The figure below details the mandated United States consumption of biofuels as provided for by the EISA.

Figure 1: United States Mandated Renewal Fuels Production (Billions of Gallons)

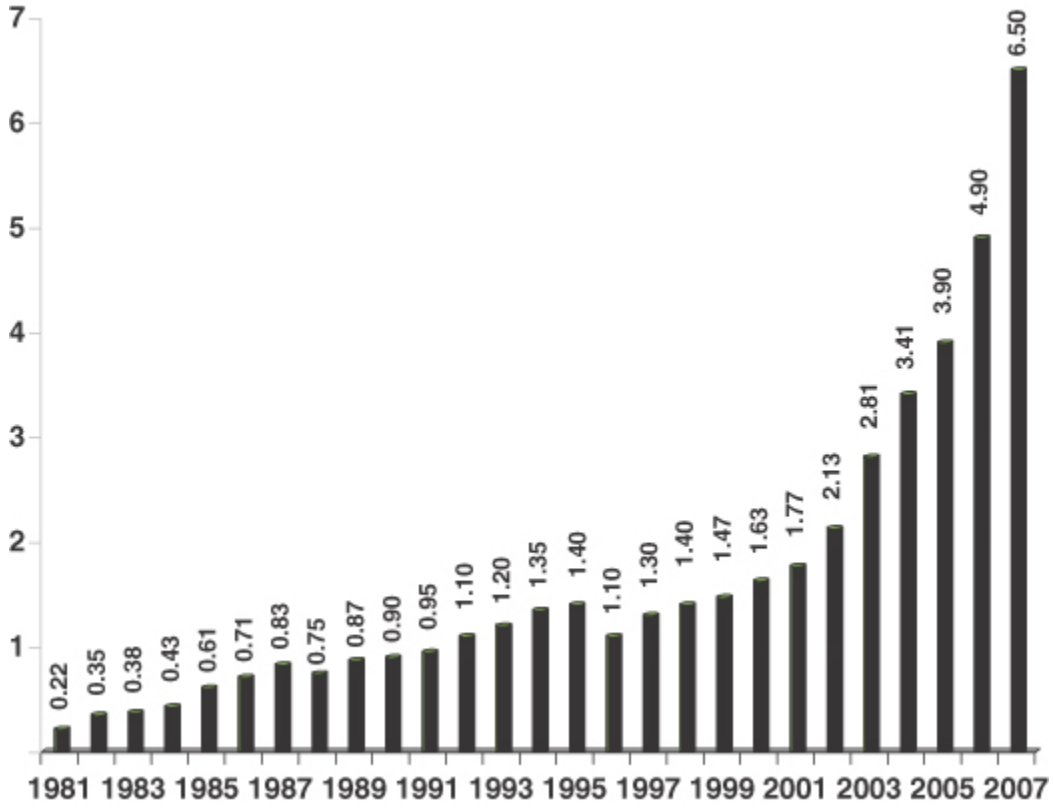


Source: Renewable Fuels Association; www.ethanolRFA.org

Fuel Ethanol

The market for ethanol, or ethyl alcohol, for use as a motor fuel is both large and well-established in the United States. According to the Renewable Fuels Association, or RFA, the national trade association for the United States ethanol industry, as of January 1, 2008, there were 139 ethanol plants in the United States having a combined production capacity of more than 7.8 billion gallons of ethanol per year. In addition, there were 61 ethanol plants and seven plant expansions under construction that are anticipated to add more than 5.5 billion gallons of new annual production capacity, of which more than 4 billion gallons in annual production capacity is expected to come online by the end of 2008. Between 1980 and 1991, less than 1 billion gallons of ethanol were produced annually in the United States. In 2007, the United States ethanol industry produced 6.5 billion gallons of fuel ethanol, representing an increase of more than 32% from 2006 and more than 300% since 2000. The graph below shows historic United States fuel ethanol production from 1984 to 2007.

Figure 2: Historic United States Ethanol Production (Billions of Gallons)



Source: Renewable Fuels Association; www.ethanolRFA.org

Many industry experts, including the RFA, believe corn-based ethanol production growth will continue to its natural limit of 12 to 15 billion gallons per year, in annual production. United States-based demand for ethanol is expected to meet, if not exceed, this production supply for reasons that include the following:

- *Strong legislative and government policy support*—As stated above, the Energy Independence and Security Act of 2007 was signed into law and mandates minimum annual usage renewable fuel of 36 billion gallons per year by 2022.

- *Expansion of gasoline supply*—By blending ethanol into gasoline, refiners can expand the volume of fuel available for sale especially when refinery capacity and octane sources are limited. According to

the Department of Energy, or DOE, between 1985 and 2005, petroleum refining capacity in the United States increased only 9.7% while domestic petroleum product demand increased by 32% during the same period. We believe that increased pressure on domestic fuel refining capacity will result in greater demand for ethanol.

- *Favorable tax treatment*—One factor contributing to ethanol's attractive economics is the availability of a federal excise tax credit available to blenders/retailers, known as the volumetric ethanol excise tax credit, or VEETC. The credit is currently set at $0.51 per gallon and is scheduled to expire on December 31, 2010.

- *Environmental benefits*—Ethanol, as an oxygenate, reduces tailpipe emissions when added to gasoline. The additional oxygen in the ethanol results in a more complete combustion of the fuel in engine cylinders, resulting in reduced carbon monoxide and nitrogen oxide emissions. Prior federal programs that mandated the use of oxygenated gasoline in areas with high levels of air pollution spurred widespread use of ethanol in the United States.

- *Geopolitical concerns*—The United States currently imports approximately 60% of its oil needs, a dependency that is expected to continue. Political unrest and attacks on oil infrastructure in the major oil-producing nations, particularly in the Middle East, have periodically disrupted the flow of oil, which has added a "risk premium" to world oil prices. At the same time, developing nations such as China and India have substantially increased their demand for oil. As a result, world oil prices averaged above $60 per barrel during 2007, and exceeded $95 per barrel during December 2007. On February 28, 2008, oil prices hit an inflation-adjusted all-time high of more than $103 per barrel. As a domestic, renewable source of energy, ethanol can help to reduce American dependence on foreign oil.

- *Ethanol as a gasoline substitute*—Ethanol's role in the United States is gradually shifting from that of an oxygenate/gasoline additive to a true gasoline complement/replacement. Most ethanol currently produced in the United States is a fuel blend of 10% ethanol and 90% gasoline called E10, which is used as an oxygenate/fuel additive. Automakers in the United States have been accelerating their work with FFV programs, according to the National Ethanol Vehicle Coalition (NEVC), resulting in an expanded fleet of vehicles capable of using a fuel blend of 85% ethanol and 15% gasoline, or E85. E85 contains significantly more ethanol than E10. Future widespread adoption of FFV's could significantly increase ethanol demand and reduce the consumption of gasoline; however, widespread use of E85 in the United States is currently constrained by the lack of a broad distribution infrastructure and limited availability of FFVs. While, according to the NEVC, approximately 6.0 million United States vehicles are equipped to run on E85, there are only approximately 1,400 service stations of the approximately 170,000 nationwide which are capable of dispensing E85. However, according to the DOE (EIA) Annual Energy Outlook 2007, sales of FFVs capable of using E85 are expected to reach 2 million per year in 2030, or 10% of total sales of new light-duty vehicles, as federal fuel economy incentives are expected to continue to support the industry's development. If more vehicles and service stations become E85 capable, this could act as a significant driver of United States ethanol consumption.

Fuel ethanol has historically been produced commercially in the United States by processing sugars derived from the starch within a grain source, such as corn kernels, and then fermenting these sugars into ethanol. While the growth in the production of ethanol from corn is expected to grow substantially from its current levels, recent studies suggest that, even if all United States corn production were dedicated to ethanol production, this would meet less than 20% of total gasoline demand. Other studies and news articles suggest that, well before this level of production could be achieved, the price of corn would begin to negatively impact the costs of animal feed and food based on corn. This has led to an active, public debate of the relative merits of additional corn-based production of fuel ethanol. We believe that this debate will encourage production of ethanol from alternative sources, including cellulosic biomass.

Cellulosic Ethanol

An alternative that seeks to meet the need for additional sources of liquid fuels while addressing many of the challenges presented by corn-based ethanol involves the production of fuel ethanol from cellulosic biomass, or cellulosic ethanol. Cellulosic biomass, either agricultural waste or crop residues, such as plant stalks, stems, or leaves, or crops grown specifically for their energy content rather than for their use as food or feed sources, presents an abundant alternative source of sugars that can be converted into ethanol. Examples of cellulosic biomass include sugarcane bagasse, energy cane, switchgrass, wood chips, and corn stover. The production of ethanol from cellulosic biomass offers expected advantages over corn-based ethanol production including:

- *Low-cost, abundant sources of feedstocks that have no competitive food use*—According to a joint report of the DOE and the United States Department of Agriculture, or USDA, issued in 2005, land resources in the United States are capable of producing a sustainable supply of 1.3 billion tons per year of cellulosic biomass. The same report concluded that 1 billion tons of cellulosic biomass would be sufficient to displace 30% or more of the present petroleum consumption in the United States. In addition, according to an analysis by the Natural Resources Defense Council published in 2004, cellulosic biofuels could supply more than half of current transportation fuel needs in the United States by 2050, without decreasing the production of food and animal feed.

- *Reduced susceptibility to volatile commodity price risks*—We believe that most biomass feedstocks can be obtained at lower cost and on more favorable contractual terms compared to the cost of corn feedstock. In addition, many cellulosic feedstocks contain lignin (the high energy component of plant biomass) which could be used to reduce operating costs by eliminating or reducing the use of natural gas and other external fuel sources. We expect that cellulosic ethanol production will entail much less exposure to market and commodity risks such as volatile prices for corn, natural gas, transportation, and corn by-products.

- *Superior carbon emissions profile that benefits the environment*—Cellulosic ethanol is expected to produce less harmful greenhouse gas emissions than corn ethanol and gasoline. According to a report by Argonne National Laboratory, corn ethanol reduces greenhouse gas by 18% to 29% per vehicle mile traveled as compared to gasoline, while cellulosic ethanol reduces greenhouse gas emissions by approximately 85% per vehicle mile traveled. Other advantages of cellulosic ethanol may include realizing additional revenues through the sale of carbon credits given the substantially improved carbon emission profile of cellulosic ethanol.

- *Proximity to end-user markets*—Cellulosic ethanol production facilities will not need to be located near corn allowing their facilities to be possibly located closer to end-user markets, potentially reducing transportation costs.

While the cost-effective production of ethanol from cellulosic biomass has historically proven challenging using traditional technologies and methodologies, recent advances in the emerging industrial biotechnology industry relating primarily to the development and application of novel, high-performance enzymes and robust fermentation organisms have provided the industry with powerful new tools to address this objective. To date, there is no process that has been commercialized to make cellulosic ethanol cost-effectively. Nonetheless, a number of companies, academic or government institutions, and other non-profit organizations are actively pursuing one or more aspects of the production process, each seeking to provide economical solutions to enable the development and growth of the cellulosic ethanol market.

Generally speaking, efforts to convert cellulose into ethanol follow one of three main processes:

- thermochemical conversion of biomass into synthesis gas or “syngas” (a process often referred to as “gasification”), followed by catalytic conversion of the syngas into mixed alcohols that include ethanol and/or alkalines via modified chemistry;

- thermochemical conversion of biomass into syngas, followed by biological conversion of the syngas into ethanol; or

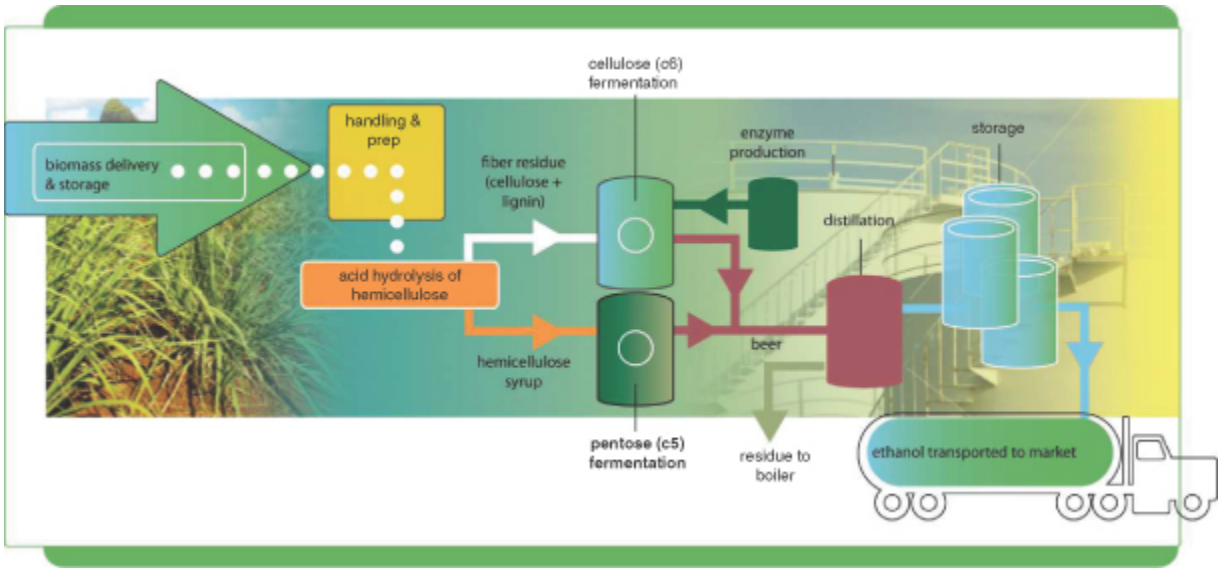
- enzymatic or chemical breakdown of biomass into component sugars, followed by biological fermentation of the sugars into ethanol.

We have selected enzymatic breakdown of biomass for producing ethanol from cellulose because we believe it has distinct advantages over the thermochemical/gasification methods. Gasification methods present a number of challenges, including the capital intensity of the process, selectivity of the syngas conversion to ethanol, and alcohol tolerance of the organisms capable of converting syngas to ethanol. Furthermore, we believe that our abilities in enzymology, microbiology and process engineering provide a skill-set and foundation for us to successfully pursue an economically viable process for cellulosic ethanol production through enzymatic breakdown of biomass.

Our Planned Process For Ethanol Production

Our process to produce ethanol from cellulosic material is illustrated below:

Figure 3: Process for Cellulosic Ethanol Production



Our planned process for producing cellulosic ethanol contains the following steps. While several steps are generic to other forms of ethanol production, there are three important steps that we believe are unique to us and are proprietary. The principal steps are as follows, with the stages that we believe are proprietary identified as such:

1. Biomass is delivered to the facility for storage;

2. Biomass is prepared for processing based on its specific physical and chemical characteristics;

3. Biomass undergoes mild acid hydrolysis and steam explosion to break down plant matter;

4. Hemicellulose, in the form of syrup containing xylose and other C5 sugars, is drawn off for processing

    - C5 sugars are fermented using our proprietary, engineered E. coli bacterium, yielding a broth containing ethanol, referred to as “beer”;

5. Residue, in the form of a semi-solid mixture of cellulose and lignin, is sent for further processing

    - Cellulose is hydrolyzed into C6 sugars using proprietary enzyme cocktails. C6 sugars are simultaneously fermented using a proprietary engineered bacteria, K. oxytoca. The C6 fermentation process also yields ethanol referred to as “beer”;

6. Proprietary enzymes are produced on site which are optimized for a given biomass source to be used in Step 5;

7. Beer from steps (4) and (5) is collected prior to distillation;

8. Beer is distilled into high-grade ethanol through the removal of water and residues;

9. Lignin-rich residue from distillation, or stillage, is burned, yielding steam for the process; and

10. High-grade ethanol is ready for shipment to market.

The planned process outlined above is illustrative only. We have employed this process only in small-scale production, both in our laboratories and our pilot plant in Jennings, Louisiana. We can not guarantee that this process will be effective or efficient for commercial production.

We believe that the following elements of our planned production process will provide us with benefits over existing ethanol production processes:

- the ability to process both C5 and C6 sugars results in conversion rates in excess of 70% of the available carbohydrates in biomass material—leading to higher productivity per ton of input than other processes that convert only C6 sugars. We expect that this higher productivity will translate into lower feedstock costs for a targeted level of facility output (see Step 4 above);

- our growth of a proprietary strain of fungus is designed to optimize ethanol production from a given biomass source (see Step 6 above).

We have an exclusive worldwide license to use, develop and commercially exploit the ethanol production patent estate of the University of Florida Research Foundation, Inc., or UFRFI, which consists of 15 United States patents, 7 pending United States patent applications, 54 foreign patents, 52 foreign patent applications and other related proprietary ethanol technology, and any extensions and improvements thereof for the production of ethanol, all of which is referred to herein as the UFRFI technology.

The core patents of our intellectual property estate related to biofuels contain composition-of-matter claims, with core coverage until 2015 on an ethanologenic strain known as KO11, as well as product-by-process and method claims. In addition to our licensed and owned patents and patent applications, we have developed significant know-how in various aspects of cellulosic ethanol production.

Our Biofuels Research and Technology

We own exclusive worldwide rights to a number of uniquely designed micro-organisms, as well as complementary enzyme technology, that provide us with the scientific foundation for our business model. Our biofuels technology, including the UFRFI technology, is covered by 17 United States and 55 foreign patents and 7 United States and 53 foreign patent applications.

Our patented and proprietary technology and process know-how enable our production of fuel-grade ethanol from low-cost, abundant cellulosic biomass materials, such as agricultural and forestry wastes, dedicated energy crops, and wood. Our technology enables the release and fermentation of sugars in both cellulose and hemicellulose, promoting a high conversion rate of available sugars in a wide range of biomass feedstocks. Competing processes for producing cellulosic ethanol have focused on a single feedstock or only on particular sugars contained in a particular feedstock.

We currently conduct our research activities at our centralized R&D facility in San Diego, as well as at our pilot plant in Jennings, Louisiana. We have successfully conducted laboratory tests on a wide range of feedstocks to produce ethanol from agricultural residues, such as agricultural wastes including sugar cane bagasse, corn fiber, sugar beet pulp, citrus pulp and citrus peels; wood wastes, such as saw and pulp mill waste; forestry wastes,

such as hardwood and softwood thinnings; rice hulls, rice straw, and corn stover; and urban wastes, such as the paper portion of municipal solid waste and municipal green wastes. We believe our success in laboratory testing of a wide range of feedstocks will provide us the flexibility to utilize an array of feedstocks in our production process. Due to this feedstock flexibility, we believe we will be able to locate facilities in a variety of different geographic markets and, in many cases, closer to end-user markets.

In 2007, we completed a significant upgrade of our cellulosic ethanol pilot plant in Jennings, Louisiana. We believe that this pilot plant is among the nation's first pilot-scale cellulosic ethanol plants, and is a key asset of our on-going research and development program, providing us with the opportunity to refine production processes and validate our technology. We have been constructing a 1.4 million gallons-per-year, or MGY, demonstration plant on the same site, and currently expect this plant to be mechanically complete by the end of March 2008, after which the facility will go through an extensive start-up, commissioning and optimization phase throughout the balance of 2008. We believe that this facility represents one of the first demonstration-scale cellulosic ethanol facilities in the United States. Further, we believe that our combined pilot and demonstration plant facilities will enable us to refine our production processes in advance of building, or partnering with others to build, commercial-scale cellulosic ethanol production facilities. Both the pilot plant and the demonstration plant are located at a site we own in Jennings, Louisiana.

Our Biofuels Commercialization and Growth Strategy

We intend to be the market leader in the design, development, and operation of cellulosic ethanol production plants using the following strategies:

- *Commercialization of Technology*. Our strategy is to become one of the first and leading domestic producers of cellulosic ethanol. We intend to achieve this first through the successful operation of our pilot plant, which is intended to provide real-time validation of our technology and enable us to refine our production processes and, second, by successfully building and operating our demonstration plant in Jennings, Louisiana. We believe that both of these plants are among the first of their kind in the United States. After we have successfully operated our demonstration-scale facility, we intend to move rapidly to the design, development and construction of commercial-scale cellulosic ethanol production plants, either alone or with partners.

- *Independent Project Development and Ownership.* We intend to develop a pipeline of 25 to 30 MGY, commercial-scale cellulosic ethanol projects in the United States that we will own and operate, either independently or with financial partners.

- *Joint Venture Project Development and Ownership.* We intend to develop cellulosic ethanol projects in conjunction with strategic partners who may enhance our competitiveness and ability to finance our projects. Our early joint development strategy is focused on projects with strategic partners who bring key supplies or services to project development such as feedstocks, sites, on-site biomass boiler facilities or ethanol off-take agreements. In addition to dedicated cellulosic plants, we may also pursue the addition of cellulosic capability to existing corn ethanol facilities.

- *Worldwide Licensing of Technology*. We intend to pursue licensing arrangements, particularly outside of the United States, to maximize the reach of our technology and increase our market penetration. We expect that these licensing efforts will accelerate after we have completed the construction of our demonstration plant and proved our technology at that scale.

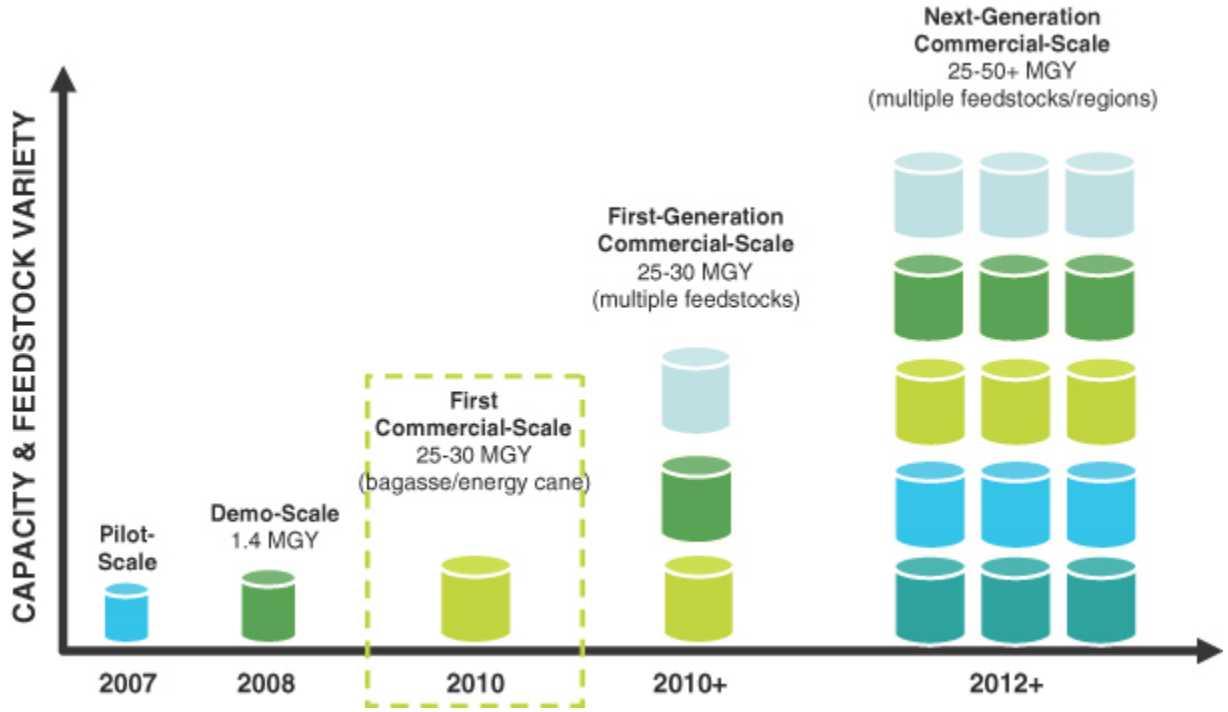
- *Project Financing*. We intend to employ well-developed project finance structures using a prudent level of non-recourse debt in order to finance our facilities at an optimal cost of capital.

- *Management Depth and Industry Expertise*. We will continue to augment our management team to maintain deep scientific talent and a full suite of project development skills, including expertise in areas such as agronomics, engineering, finance, and operations.

Our strategy is based on providing an integrated and proprietary solution for the cellulosic ethanol industry by exploiting our current and expected scientific research, process engineering and optimization, project development, project finance and enterprise risk management skills.

As shown in the figure below, we intend to utilize three scales of facilities for the production of ethanol. After a process for a given feedstock is developed at the laboratory scale, we intend to test this process in our pilot plant, which is typically run as a research and development facility with components that generally are expected to have a capacity of less than 50,000 gallons of ethanol per year. The next stage of development is a demonstration-scale plant, in which the process developed at the laboratory and the pilot plant scales is scaled-up to demonstrate the economics of producing cellulosic ethanol using the relevant feedstock and process at a scale of approximately 1.4 MGY. Finally, assuming that the economics of producing cellulosic ethanol are adequately demonstrated in a demonstration-scale facility, the next stage of development is a commercial-scale plant for the commercial production of cellulosic ethanol. We currently expect that the optimal individual plant capacity for the production of cellulosic ethanol at commercial scale at is approximately 25 to 30 MGY, based on a variety of factors primarily having to do with the required amounts of available feedstock that can be transported economically within the radius of a commercial plant. Assuming that the economics of producing cellulosic ethanol are adequately demonstrated at a demonstration-level facility, we intend to build, own, and operate multiple commercial-scale plants utilizing multiple feedstocks/processes throughout the United States and other parts of the world, either independently or with strategic and financial equity partners. In addition, assuming that the economics of producing cellulosic ethanol are adequately demonstrated at a demonstration-level facility, we expect that, particularly for regions outside of the United States, we will enter into licenses and/or strategic partnerships for our licensees and/or partners to deploy our technologies and processes in plants that they will build, own, and operate and from which we would derive royalties, profit-sharing, or other revenues.

Figure 4: Depiction of Our Cellulosic Ethanol Commercialization Strategy



We have a dedicated and experienced team of project developers and engineers actively developing a pipeline of commercial-scale cellulosic ethanol projects in the United States We expect that our cellulosic ethanol production plants will initially be sized to produce 25 to 30 MGY. Where possible, plants will be co-located with other industrial facilities to leverage existing infrastructure, thus lowering capital and operating costs while accelerating commercial operation. We intend to develop and optimize the technologies and enzymes for the production of ethanol from biomass using our in-house research and development staff, strategic alliances, mergers and acquisitions, or a combination thereof.

We are in active discussions with potential strategic partners that may improve the competitiveness and financing attractiveness of our commercial projects. Our early partnering strategy is focused on projects with strategic partners who bring key supplies or services to project development, such as feedstocks, sites, on-site biomass boiler facilities or ethanol off-take agreements. Industries offering these types of services and supply opportunities include the agriculture, industrial, petroleum refining, and gasoline blending industries, among others. Potential partners include sugar mills, biomass-fired and other power plants, pulp and paper mills, feedstock suppliers, and municipal solid waste disposal systems. Greenfield plants may be built at sites close to dedicated energy crops in order to minimize feedstock transportation costs. Because our technology can accommodate many different feedstocks, and is not dependent upon geographic location or feedstock type, the potential for plant siting is broad and diverse.

We plan to license our proprietary technology to extend our commercial reach and accelerate our market penetration, both outside the U. S. and domestically. In these instances, we may not pursue an equity interest in such projects, but instead may seek to earn license fees and royalties and fees related to technology transfer and process design. For example, under a technology transfer and license agreement, Marubeni Corp. and Tsukishima Kikai Co., Ltd., or TSK, currently operate a 1.4 million liters-per-year cellulosic ethanol demonstration plant using our proprietary technology in Osaka, Japan. We believe that this Marubeni/TSK plant represents the world’s first plant operating commercially to produce cellulosic ethanol from construction and demolition wood waste. Marubeni/TSK also has commenced construction of a 9.5 MGY plant in Thailand, where they plan to utilize our proprietary technology to commercially produce cellulosic ethanol from bagasse and molasses.

Our Specialty Enzymes Business

Within our specialty enzymes business, we have identified the following three focus areas in which we intend to pursue product opportunities either independently or through collaborations and distribution agreements with third parties:

- Alternative fuels;
- Specialty industrial processes; and
- Animal nutrition and health.

Within these three focus areas, we have a combination of (i) enzyme products that either we or one of our partners have commercialized; (ii) enzyme product candidates that either we or one of certain partners are developing; and (iii) research and development programs for the development of additional enzyme product candidates and new or improved products and processes.

Through our independent and collaborative research and development programs, we have developed commercial enzyme products across multiple markets. In addition, we have developed a pipeline of enzyme product candidates that we expect to launch independently and/or in collaboration with strategic partners. To date, we have commercialized 14 products, either independently or in collaboration with our partners.

The following table lists our current commercial products and product candidates, our development partners, market applications, and the development status of each.

Figure 5. Specialty Enzymes Product Pipeline

Product	Description	Partner	Market Application	Commercial Status
Fuelzyme-LF	Enzyme that improves the efficiency and economics of ethanol production.	None	Alternative Fuels	Launched in United States
Purifine for biodiesel	Enzyme used in conversion of vegetable oils to biodiesel.	None	Alternative Fuels	Launched in United States
Amylase-T	Transgenic version of an alpha-amylase enzyme for the cost -effective production of ethanol and other products.	Syngenta AG	Alternative Fuels	Under Development. In U.S. Regulatory Review
Fuelzyme-CX	Enzymes to break down materials in cellulosic biomass into fermentable sugars that could be used to produce cellulosic ethanol.	U.S. Dept of Energy DuPont Syngenta AG New Zealand	Alternative Fuels	Under Development.
Purifine for edible oils	Enzyme to aid in processing oilseed into edible oil.	Bunge Oils, Inc.	Specialty Industrial Processes	Launched in United States and South America
Luminase	Enzyme to enhance the reactivity of pulp fiber to bleaching, allowing mills to achieve desired pulp brightness while reducing the use of harsh bleaching chemicals.	None	Specialty Industrial Processes	Launched in North America, South America, and Europe
Phyzyme	A phytase enzyme which has been shown to improve animal health while reducing phosphate pollution by making phosphorus, a key nutritional mineral, more available in feed.	Danisco Animal Nutrition	Animal Nutrition ahd Health	Launched in the United States, European Union and various countries worldwide
Quantum	A phytase enzyme which has been shown to lead to healthier, more robust animals while reducing phosphate content in manure.	Syngenta AG AB Enzymes	Animal Nutrition and Health	Launched outside the United States
Bayovac SRS	Vaccine which was genetically engineered to prevent disease in farmed Atlantic salmon.	Bayer Animal Health Microtek International	Animal Nutrition and Health	Launched in Chile. Product discontinued after 2008.
Phytase-T	A transgenic version of a phytase enzyme to aid in cost effective production of the enzyme.	Syngenta AG	Animal Nutrition and Health	Under Development

We market our specialty enzymes through a combination of our direct sales force, independent commissioned sales agents, and marketing and distribution agreements with our collaborative partners.

Enzymes for Alternative Fuels

We have developed, either independently or through our collaborations, a number of enzyme products and product candidates that may be utilized to convert various sources of starch into sugars that can be used to produce ethanol from grains, commonly referred to as "bioethanol."

Fuelzyme-LF Enzyme

Fuelzyme™—LF enzyme is a next-generation alpha amylase enzyme designed to significantly improve the efficiency and economics of ethanol production from corn and other grain or starch sources. This new product dramatically lowers the viscosity of either a grain mash or starch stream and operates at a much higher temperature and at a significantly lower pH than other commercially available enzymes. These enhanced characteristics offer ethanol producers the potential for substantial throughput advantages and cost savings. It works in concert with other enzymes to efficiently convert the starch present in corn and other sources into sugars that can then be processed into ethanol. Ethanol producers have traditionally used other alpha amylase enzymes that do not reduce the mash or starch stream viscosity as efficiently as our enzyme, thus limiting plant capacity. In addition, the conventional alpha amylases operate at a higher pH than downstream fermentation, requiring costly process adjustment (pH reduction with sulfuric acid), whereas Fuelzyme™-LF optimum pH is much closer to that of the fermentation process. We manufacture this enzyme under our agreement with Fermic S.A. de C.V., a U.S. Food and Drug Administration-approved fermentation and synthesis plant located in Mexico City. We estimate that the addressable market for this product is in excess of $100 million per year in the United States alone and is currently growing at a rate in excess of 25% per year—*i.e.*, proportionally with the significantly increasing demand for ethanol.

Purifine Enzyme for Biodiesel Applications

We announced in October 2006 that Purifine enzyme was approved by the U.S. Environmental Protection Agency, or EPA, for non-food applications, thus enabling commercial scale trials in dedicated biodiesel plants to determine the extent to which Purifine enzyme can improve overall yield of biodiesel fuel from seed oil processing. While we developed our Purifine enzyme primarily for the edible oils market, it is used very early in the vegetable oil refining process, before the point where the refining process differentiates between food and non-food (biodiesel) applications. Our laboratory studies have shown that Purifine enzyme provides significant benefits in the simplified refining processes utilized during preparation of seed oils for biodiesel. These benefits include increased yield, reduced chemical usage, improved operating efficiency, and reduced waste by allowing a higher percentage of the vegetable oil feedstock to be recovered and converted to biodiesel.

Amylase-T Transgenic Corn Amylase

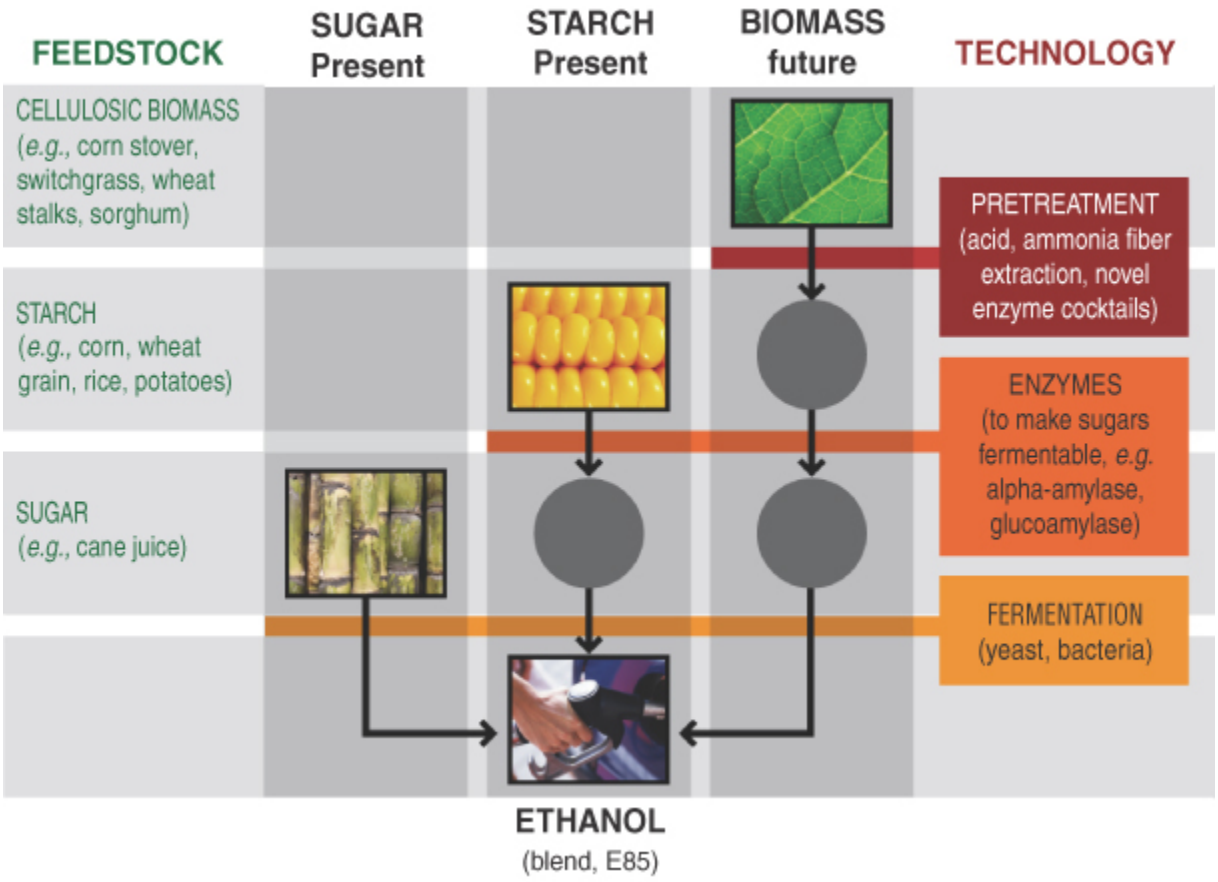
Syngenta has a project in development to produce corn enhanced through biotechnology that expresses high levels of alpha amylase. Using high amylase corn may result in improved process efficiency and possible savings in the cost of ethanol from corn starch, as it speeds up starch conversion into sugar and reduces the need for supplemental alpha amylase enzymes in the process. This transgenic amylase enzyme, which Syngenta refers to as "Corn Amylase," was originally developed under our collaboration with Syngenta. According to Syngenta, initial pilot trials were successfully conducted in 2005, and registration dossiers have been submitted to United States regulatory authorities. We are entitled to receive royalties from Syngenta on sales of products incorporating Corn Amylase. We cannot predict with certainty when, if ever, any products incorporating Corn Amylase will receive regulatory approval in the United States or any other countries, or whether any such products will be accepted by the intended customers of such products.

Fuelzyme-CX Enzymes for Cellulosic Ethanol

In order to meet the increased demand for ethanol in the future, feedstocks other than starch will need to be utilized to produce alternative fuel. Many forms of cellulosic biomass can contribute to biofuels, including grain crops and switch grass, or crop residues such as corn stalks, wheat straw, rice straw, grass clippings, and wood residues. These cellulose-containing natural waste products are widely abundant and can be sustainably produced. In addition to fuel, cellulosic biomass can be converted into chemicals used to manufacture products that would otherwise be made from petrochemicals, such as plastics, adhesives, and paints.

The figure below shows a general schematic for producing ethanol from sugar, starch, and biomass, together with the associated technologies required for such production.

Figure 6: The general schematic for producing ethanol from sugar, starch, and cellulosic biomass



Cellulosic biomass has been a challenge for scientists to convert to ethanol. In the past, scientists have used harsh acids and high temperatures to try and break, or hydrolyze, the cellulose molecules into their individual sugar components. However, an economical process has never been developed using traditional chemistry.

We are developing Fuelzyme-CX enzyme “cocktails” as part of our overall objective of developing a new, more cost-effective process to break down the more complex starting materials locked within cellulosic biomass into fermentable sugars that could be used to produce cellulosic ethanol. We have several research and development programs in various phases of development that are aimed at developing these cocktails of enzymes, including programs with Syngenta AG, DOE, Du-Pont Bio-Based Materials, DOE’s Joint Genome Institute, and New Zealand’s Scion and AgResearch Institutes, each of which are discussed below.

Syngenta AG

Under our collaborative agreement with Syngenta, we have been working on developing candidate cocktails of enzymes to produce cellulosic ethanol from sugarcane bagasse, with an emphasis on Brazil and other similar tropical regions where sugar cane is grown. Sugarcane bagasse is considered an attractive feedstock for several reasons:

- Sugar cane is already established in Brazil as the largest source of bioethanol, and sugar cane bagasse, unlike most other sources of plant fiber, is already collected at the processing site.
- Sugar cane grows in tropical climates with plenty of sunshine, such as Brazil and the Gulf Coast of the United States;
- Sugar cane is one of the lowest cost sources of plant fiber and sugar, not taking into account the effect of subsidies and tax benefits for other feedstocks.
- Many other countries, including the United States, China, and India, are sugar cane producers in addition to Brazil.
- Success with one plant fiber source may more easily lead to success with other sources of cellulosic biomass with relatively minor modification.

United States Department of Energy

In March 2007, we announced that we were awarded up to $5.3 million by the DOE for a multi-year research program aimed at developing further improvements to our cellulosic ethanol fermentation process technology. The work to be performed under this grant will be focused on enhancements to two organisms that are utilized in our existing cellulose-to-ethanol process. These include a strain of the Klebsiella oxytoca bacterium and a strain of the Escherichia coli bacterium organisms, which produce ethanol from a variety of different types of biomass. We have the exclusive rights to use and license the engineered bacteria for the production of fuel ethanol. Our research performed under this grant will be conducted by a team that will include members from Verenium, the University of Florida; Massachusetts Institute of Technology; and Genomatica, Inc.

In June 2007, we announced that we were selected as a member of a consortium led by Oak Ridge National Laboratory (ORNL). The DOE has awarded ORNL $125 million to develop the Bioenergy Science Center that will seek new ways to produce biofuels. The Bioenergy Science Center will be located on the ORNL campus in a new facility funded by the State of Tennessee and owned by the University of Tennessee. The center, one of three funded from more than 20 proposals, will employ partners in the fields of genomics, biology, engineering, agricultural science, and commercialization to develop processes for converting biomass into cellulosic ethanol and other biofuels. We have been allocated a total of $4.6 million over the five-year program to discover and develop new enzymes and enzyme cocktails to break down various types of biomass.

In February 2008, we announced that we were awarded one of four grants from the DOE under a $33.8 million program for the development of improved enzyme systems to be used in converting biomass into clean, renewable cellulosic ethanol. The grants will be appropriated over a four-year period beginning in 2008 and expiring in 2011. The individual award values have not yet been disclosed. Under this grant, we plan to leverage our proprietary library of enzymes and DirectEvolution technology to develop and optimize more robust and cost-effective enzymes to breakdown biomass.

DuPont Bio-Based Materials

From 2003 through 2007, we collaborated with DuPont Bio-Based Materials, or DuPont, on the development of an integrated corn-based biorefinery, or ICBR, for the production of ethanol and other value-added chemical products from corn biomass. This multi-year program was co-funded by the DOE. Our objective

under the program was to discover, optimize, and manufacture a "cocktail" of enzymes that can efficiently convert the different components of an entire corn plant, including the stalk, into simple sugars that can then be used to make ethanol and other products. In 2005, we announced that the performance of the enzymes we developed under the ICBR program with DuPont substantially exceeded the initial targets set by the Department of Energy, and in 2007 we completed our work under this collaboration. DuPont has the right to exclusively license a selected number of enzymes comprising this cocktail for use in converting biomass to fuels and/or other chemicals, in exchange for the payment to us of up-front license fees and royalties on future sales of these enzymes.

The Joint Genome Institute

In 2003, we formed a collaboration with the DOE's Joint Genome Institute, or JGI, involving the large-scale sequencing of novel microbial genomes found in a diverse range of unique habitats. As part of this collaboration, we have used our proprietary technologies to extract DNA from environmental samples and make gene libraries, while JGI has performed large-scale DNA sequencing. As part of this collaboration, microbes from the intestinal lumen of numerous different termites have been sampled, and the JGI has sequenced hundreds of new cellulose enzymes that we have patented. We believe that new enzymes discovered in this fashion may be particularly well-suited for discovering new cellulose-degrading enzymes to break down wood biomass, among other feedstocks, into sugars for the production of cellulosic ethanol. The JGI is also part of the ORNL consortium as described above.

New Zealand's Scion and AgResearch Institutes

In January 2007, we announced the formation of a research program with two of New Zealand's Crown Research Institutes, Scion and AgResearch, and Carter Holt Harvey, a company that owns the majority of New Zealand's pulp and paper industry. The goal of this program is to develop cellulosic ethanol technologies and processes to enable New Zealand's entire vehicle fleet to run on New Zealand-grown and manufactured biofuels. The research program began with a preliminary study of the applicability of our enzymes to produce fermentable sugars from the wood of New Zealand-grown tree stocks, which sugars could then be fermented and refined into ethanol and other products. Based on the results of this preliminary study, the research program was expanded to an in-depth study to evaluate the feasibility of a wood-based ethanol industry in New Zealand. This study concluded that there were no significant technical or supply barriers to producing ethanol from New Zealand's softwood feedstocks. The collaboration is currently exploring mechanisms to fund an expanded research program. In the expanded research program, we intend to employ our enzyme discovery and optimization technologies in order to develop robust enzymes designed for cost-effective wood biomass conversion as well as to improve the performance of various fermentation organisms. The expanded research program could also include activities to assess the feasibility of a transportation biofuels industry in New Zealand and to create a roadmap and plans for commercialization of biofuels.

Enzymes for Specialty Industrial Processes

Within the area of specialty industrial processes, we have identified a number of opportunities for high-value enzymes to potentially decrease processing time, improve product quality, lower total processing costs, and/or reduce harmful waste streams. In many cases, these enzymes are intended to replace or reduce the use of commodity chemicals that have been traditionally used in the applicable industrial process.

Purifine for Enhanced Processing of Edible Nutritional Oil

In December 2006, we announced that our Purifine enzyme received Generally Recognized As Safe, or GRAS, approval from the FDA for edible oil applications. Based on this approval, we launched Purifine on a commercial basis in 2007, and entered into an agreement with Bunge Oils, Inc. whereby we would take

advantage of their process scale-up expertise to develop and validate the Purifine-based degumming process at scale. In addition, we will work with them to develop next-generation enzyme products for vegetable oil processing.

Our Purifine enzyme is a novel oil processing enzyme designed to increase the yield of oil from oil seeds, creating a novel degumming process that converts low-value byproducts (phospholipids) to increased oil yields while still reducing the phosphorus content of the oil as required by the oil refining process. The total oil yield increase is expected to vary between 1-2%, depending on the phospholipid content of the crude vegetable oil. The enzyme has been developed to be compatible with current processing technologies, and, therefore, minimal capital investment is anticipated to be required to obtain the significant yield benefits that can be achieved with Purifine. Purifine is also expected to minimize chemical usage, improve operating efficiency, and reduce waste by allowing a higher percentage of oil to be recovered from oil seeds economically.

According to the 2007 Soya and Oilseed Bluebook, the estimated worldwide production of high phosphorus oils such as soybean, canola, and sunflower was more than 60 million metric tons in 2007. We estimate the addressable market for Purifine within the global seed oil processing market to be in excess of $200 million annually.

Luminase for Pulp and Paper Processing

We have developed enzymes to aid in bleaching pulp, that reduce the need to use strong oxidizing chemicals, such as chlorine compounds. These enzymes can reduce the cost of pulp processing both by reducing the amount of oxidizing chemicals required and the expense associated with treating the waste water resulting from the use of these harsh chemicals.

In July 2004, we launched our Luminase PB-100 enzyme for pulp bleaching enhancement, and in 2006, we began marketing an additional product under the Luminase line of enzymes, Luminase PB-200 enzyme, for higher temperature processes. These products improve the response of pulp fiber to bleaching chemicals, which can reduce the need for harsh bleaching chemicals or enable the customer to make whiter pulp for new products. Decreasing bleach chemicals lowers costs and offers a potential environmental benefit by reducing the amount of waste material requiring removal from pulp mill effluent. In mills, both Luminase PB-100 enzyme and Luminase PB-200 enzyme have outperformed competitive products, demonstrating bleach chemical cost savings of up to 20%. Additionally, Luminase enzymes may produce whiter pulp, potentially extending a customer's market to new products.

More than 190 million metric tons of pulp fiber and 354 million metric tons of paper and board products are produced annually worldwide. Environmental regulations are becoming increasingly stringent, and the use of harsh chemicals, such as chlorine for bleaching, is no longer preferred in most parts of the world. Substitute chemistries are more expensive, less effective, and more damaging to fiber. Reducing chemical usage in fiber processing through the use of biochemical products can decrease manufacturing and energy costs and environmental impact.

Fine Chemicals

We have developed enzymes to aid in the manufacture of both fine chemicals, such as chiral pharmaceutical intermediates, as well as other high performance chemicals. These enzymes are designed to create manufacturing efficiencies, reduce production costs, and accelerate the generation of new chemical products and processes. Historically, we have established collaborative agreements in this area with BASF, The Dow Chemical Company, DSM Pharma Products, and Givaudan Flavors Corporation. We expect to continue to establish or maintain collaborative relationships for the development of products for fine chemical applications, although we do not currently intend to invest our own financial resources in the development of internal products for these applications. We intend to pursue these opportunities only through collaborations with partners under which we expect our unreimbursed costs to be minimal.

Specialty Enzymes for Animal Nutrition and Health

Animal Feed Additives to Enhance Animal Nutrition

Animal feed additives are designed to increase absorption of essential vitamins and minerals, increase nutritional value and animal product yield, and reduce harmful materials in animal waste. We are developing several classes of enzymes, including phytases and carbohydrases, for the increased absorption of organic phosphorous and digestibility of carbohydrates, as well as the promotion of weight gain in livestock.

When used as an additive in animal feed applications, phytase enzymes allow higher utilization of naturally occurring phosphorus from the feed, thereby increasing its nutritional value and reducing phosphate pollution. We estimate that the worldwide market for phytase enzymes is more than $250 million per year, and growing at more than 5% per year. This growth has been driven by economics as well as regulatory pressure to decrease pollution caused by the phosphate-rich waste from swine and poultry farms that is a leading cause of water pollution. We have developed two phytase products to address this market, and have one under development with Syngenta.

- *Phyzyme* XP

In March 2003, we launched Phyzyme XP in collaboration with our partner Danisco Animal Nutrition. The addition of Phyzyme XP to animal feed has been shown to reduce the need for inorganic phosphorus supplementation by approximately 20% and lower the level of harmful phosphates that are introduced to the environment through animal waste by approximately 30%, resulting in inorganic phosphate cost savings and a significant reduction in environmental pollution. We are responsible for manufacturing Phyzyme XP, and Danisco is responsible for its sales and marketing.

- *Quantum*

In December 2003, our thermostable Quantum phytase, developed under our collaboration with Syngenta, received regulatory approval in Mexico and has subsequently received regulatory approval in other countries, including Brazil. Quantum phytase is currently under regulatory review for sale in the United States and several other countries. As reported by Syngenta, the results from more than 50 poultry and swine trials of this product show that Quantum phytase consistently outperforms other commercial phytases in a wide variety of diets. This is the first product we have commercialized with Syngenta.

- *Phytase-T*

Through our collaboration with Syngenta, we have also developed a next-generation transgenic phytase product candidate, which Syngenta refers to as Corn Phytase, that is intended to be grown directly in corn. This product is intended to be both cost-effective and heat-stable, and it is expected to supplement Quantum phytase. We are entitled to receive royalties from Syngenta on sales of products incorporating Corn Phytase. We cannot predict with certainty when, if ever, any products incorporating Corn Phytase will receive regulatory approval in the United States or any other countries, or whether any such products will be accepted by the intended customers of such products.

Animal Health Vaccines for Prevention or Treatment of Disease

- *Bayovac SRS*

Over the past several years, we have worked on the development, optimization, and manufacture of vaccines for use in animal health. Our initial product, Bayovac SRS, is a proprietary and novel subunit recombinant vaccine for farmed salmon. This vaccine product has demonstrated superior protection against salmon rickettsial septicemia, or SRS. SRS is the major infectious disease in Chilean aquaculture, typically killing a large

percentage of untreated farmed salmon, which represent the highest value per pound of all farmed animals. Our single source of revenue from Bayovac SRS has been through a licensing and collaboration agreement with Microtek International Inc, who has been distributing this product to a single customer, Bayer Animal Health, since its commercial launch in 2004.

In late 2007, because of new entrants into the vaccine market and resulting pressure on pricing and margins, we made the strategic decision to exit the animal health vaccine market to focus on product commercialization efforts in areas that are more strategic to our current focus, namely biofuels. In connection with this decision, we terminated our Licensing and Collaboration Agreement with Microtek, and will discontinue sales of Bayovac SRS after 2008.

Antibody Products and Programs

To date, we have had collaborative agreements with the DOD, Merck, Medarex and Xoma to develop optimized therapeutic antibodies for the detection and treatment of human disease. We intend to continue to develop optimized therapeutic antibodies in collaboration with strategic partners. However, given our focus in the near-term on specialty enzyme product opportunities and the vertically integrated production of cellulosic ethanol, we do not intend to invest a significant amount of our own financial resources in the development of optimized antibody therapeutics under such collaborations or under internal programs, and we may in the future sell or license our proprietary rights to certain of our technologies as they relate to field of optimized human therapeutics.

Our Enabling Platform—Research and Development

Technologies and Advantages

Traditional Approaches and Their Limitations

Enzymes have been shown to catalyze thousands of individual chemical reactions. Nearly all of the currently characterized enzymes have been isolated from organisms that were cultured in the laboratory, representing only a small percentage of the billions of species believed to exist. The reasons for this include:

- Less than 1% of microbial species will ordinarily grow under standard laboratory conditions;
- Enzymes and other bioactive molecules may only be produced at specific times during growth or under specific conditions not present in the lab; and
- Even when enzymes are found, recovery of the corresponding genes can be difficult.

Accordingly, biodiversity remains largely untapped.

Once an enzyme of interest is discovered, the genetic sequence of the gene encoding it can be studied, and genetic variation can be introduced in an attempt to modify its function through a process of test tube evolution. Genetic variation is generated predominantly by two methods: mutation and recombination. Mutation is the introduction of changes into a gene. Mutation can be achieved by several methods, including forcing the DNA to replicate in a manner that intentionally causes random changes. Mutagenesis has also been achieved by randomly introducing single nucleotide changes into a gene during laboratory replication of the gene in an attempt to alter amino acids within the corresponding protein. Random methods have deficiencies that make it virtually impossible to generate all 19 possible amino acid changes at each position within the protein. The best method to generate all amino acid changes at each site requires multiple, appropriately positioned DNA base changes (non-random methods). Historically, on average, three or fewer changes are explored due to deficiencies in mutation and sampling methods. Recombination, or shuffling, the other method for producing genetic variation, is the mixing of two or more related genes to form hybrids. However, the generation of improved variants has, to date, been inefficient and laborious, or has allowed only closely related genes to be recombined.

Once a desired gene is found and optimized, commercial production requires insertion of the gene into a production system or host. Almost all of the current commercial enzymes used in industrial applications today were derived from cultured microorganisms and produced in these or similar organisms referred to as homologous expression. However, genes encoding unique biomolecules may not be able to be expressed and commercially produced in traditional systems. Thus, traditional methods present both the problem of novel biomolecule identification and the challenge of commercial production of any identified biomolecules.

Biodiversity Access

Our discovery program begins with access to biodiversity. Biodiversity can be defined as the total variety of life on earth, including genes, species, ecosystems, and the complex interactions between them. We have collected microbial samples from numerous types of ecosystems represented on earth, including such environments as geothermal and hydrothermal vents, acidic soils and boiling mud pots, alkaline springs, marine and freshwater sediments, savanna grasslands, rainforests, montane and subalpine landscapes, industrial sites, arctic tundra, and dry Antarctic valleys. We have also sampled microbial communities living in close association with insects, arachnids, and nematodes, as well as the symbionts residing within marine sponges, soft corals and termites. All of our samples from the countries within our biodiversity access network have been acquired through agreements that permit broad access to biologically diverse environments within such countries. These agreements are generally with domestic land management agencies and scientific research institutions associated with appropriate government agencies. Our relationships have been founded on the fundamental principles of the Convention on Biological Diversity: (1) conservation of biological diversity; (2) the sustainable use of its resources; and (3) the fair and equitable sharing of the benefits derived from the utilization of genetic resources.

We believe our ability to create highly representative libraries using minute samples of genetic material collected from diverse environments is an important factor to our success. Our need to use only small environmental samples results in minimal impact to the surrounding ecosystem, enabling us to enter into formal genetic resource access agreements. In 1997, we signed a Cooperative Research and Development Agreement with Yellowstone National Park, which was the first agreement of its kind for the United States National Park Service. To date, we have obtained samples under various access agreements from Alaska, Antarctica, Australia, Bermuda, Costa Rica, Ghana, Hawaii, Iceland, Indonesia, Kenya, Mexico, the Meadowlands Superfund site, Puerto Rico, Russia, the San Diego Zoological Society, South Africa, and Yellowstone National Park. We have also accessed marine and terrestrial samples from Antarctica, as well as deep-sea hydrothermal vents off the shores of Costa Rica and the Pacific Northwest. Many of these samples were taken using deep-sea submersibles or remotely operated vehicles.

We intend to enter into additional agreements to further strengthen our biodiversity access program by expanding the network of countries from which we obtain samples. Using our proprietary techniques to recover the genes from these samples, we have constructed our DiverseLibrary collection. We intend to expand this DiverseLibrary collection, which we estimate currently contains the total genomes of millions of unique microorganisms. We believe that the application of our proprietary technologies to this vast resource of genetic material will provide us with a myriad of product candidates for attractive commercial applications.

Screening

We have developed an array of automated, ultra high-throughput screening technologies and enrichment strategies. Our proprietary rapid screening capabilities are designed to discover novel biomolecules by screening for biological activity, known as expression-based screening, as well as by identifying specific DNA sequences of interest, known as sequence-based screening.

We have developed numerous assays capable of expression-based screening from thousands to over 1 billion clones per day. Our key screening technologies include SingleCell screening and high-throughput robotic-based screening. Our ultra high-throughput SingleCell screening system uses Fluorescence Activated Cell

Sorting, or FACS, a third-party technology that enables the rapid identification of biological activity within a single cell or individual organism. Our SingleCell screens have been developed to identify clones based on activity or DNA sequences. This system incorporates a laser with multiple wavelength capabilities and the ability to screen up to 50,000 clones per second, or over 1 billion clones per day. Our robotic screening systems use high-density (up to 1536 wells) microtiter plates and are capable of screening and characterizing over 1 million clones per day. If the clone expresses an activity or contains a DNA sequence of interest, we isolate it for further analysis.

Our GigaMatrix platform is an ultra high-throughput screening platform that is the first system known to utilize plates with up to 1,000,000-well density. Exponentially more efficient than standard 96-, 384-, or 1536- well screening systems, the GigaMatrix platform combines automated robotics and an ultra high density format contained in the 3.3" x 5" footprint of a standard plate.

The GigaMatrix platform permits rapid screening of genes and gene pathways, and has increased the productivity of our discovery programs for products such as novel enzymes. The GigaMatrix technology greatly expands the amount of molecular diversity that can be screened to discover products. The platform also dramatically reduces equipment and operator time through massively parallel dispensing and reading of biological samples. The GigaMatrix plates, with wells each about the diameter of a human hair, are reusable and require only miniscule volumes of reagents, making them highly cost effective.

Because we have conducted extensive activity-based screening and cataloged thousands of unique genes and their sequences, we are able to use unique signatures within these gene sequences with known function to identify the function of genes in public databases based on their sequences. These newly identified sequences are then added to the repertoire of proprietary sequences in our own database. As more microbial genomes are sequenced, our ability to associate gene sequence with enzyme function has been enhanced significantly. This sequence database provides us with opportunities to identify more sequences with similar function and the potential to modify these sequences in order to create optimized catalysts and other biomolecules for various commercial applications.

Our DirectEvolution Technologies

The genetic code is structured such that a sequence of three nucleotides defines an amino acid. Nature uses 20 common amino acids in proteins arranged in a sequence, defining the protein structure and activity. Over the course of almost 4 billion years of evolution, nature has sampled countless sequence possibilities to evolve proteins to function optimally within the cell. However, when a protein is removed from its natural cellular environment and used to perform reactions, such as an enzyme used to catalyze a chemical process, its function may not be optimal. Laboratory methods can accelerate the evolutionary process of optimization outside of the cell by creating a large number of variants for screening. In the traditional method for improving proteins, called site-directed mutation, a single site is typically targeted for change based on prior knowledge of the protein structure. Other traditional techniques, including random mutation, typically produce single nucleotide changes which can only access a limited number of alternative amino acids, typically fewer than 3 of the possible 19 alternatives. These methods are limited by their inability to produce all DNA and amino acid sequence variations. Furthermore, the large number of resulting sequences presents formidable screening challenges.

We believe our techniques overcome the limitations of these traditional methods, not only because of our superior screening capabilities, but also by increasing the number and types of sequence variations we can create. Our evolution technologies used to modify the DNA sequence of the genes, our DirectEvolution technologies, include Gene Site Saturation Mutagenesis, or GSSM, and Tunable GeneReassembly. Our GSSM technology is a patented method of creating a family of related genes that all differ from a parent gene by at least a single amino acid change at a defined position. By performing GSSM on a gene encoding a protein, we create all possible single amino acid codon substitutions within that protein, removing the need for prior knowledge about the protein structure and allowing all possibilities to be tested in an unbiased manner. The family of variant genes

created using GSSM is then available to be screened for proteins with improved qualities, such as increased ability to work at high temperature, increased reaction rate, resistance to deactivating chemicals, or other properties important in a chemical process. Individual changes in the gene that cause improvements can then be combined to create a single highly improved version of the protein.

In addition to altering single genes using our GSSM technique, we use our Tunable GeneReassembly technology for the reassembly of related or unrelated genes from two or more different species or strains. Our Tunable GeneReassembly technology recombines multiple genes to create a large population of new gene variants. The new genes created by Tunable GeneReassembly are then screened for one or more desired characteristics. This evolutionary process can be repeated on reassembled genes until new genes expressing the desired properties are identified. Tunable GeneReassembly technologies can be used to evolve properties which are coded for by single or multiple genes. We have received more than 20 patents worldwide for our broad portfolio of proprietary processes for evolution, from gene shuffling based on interrupted DNA synthesis, to Tunable GeneReassembly, GSSM, and a number of additional evolution technologies. Further, this suite of multiple, patented evolution technologies successfully overcomes the limitations of traditional shuffling techniques. For instance, unlike widespread shuffling technologies that require highly related gene sequences to achieve successful recombination, our proprietary Tunable GeneReassembly technology also allows unrelated genes to be combined to maximize evolved improvements.

We believe that the ability to selectively apply our GSSM and Tunable GeneReassembly technologies to optimize enzymes provides us with a distinct competitive advantage. GSSM is better suited in some situations, for example, in the optimization of a protein's stability or its immune response characteristics. With respect to stability, applying GSSM may significantly improve temperature tolerance through combining amino acid alterations at defined positions, while maintaining the protein's overall characteristics, such as specificity. In one program, we have used this technology to improve enzyme stability by a factor of 30,000. Similarly, adverse immune system responses may be avoided by the incremental changes created by GSSM compared to traditional stochastic methods. In contrast, random shuffling technologies that cause block shifts in DNA structure may be more likely to reduce stability and create undesirable immune response characteristics.

High-Throughput Culturing Platform (HTC)

HTC provides access to previously uncultured microorganisms by creating nano-environments similar to those encountered in natural habitats. The specific technology and an extensive report on its findings have been published in the Proceedings of the National Academy of Sciences. Using HTC, novel isolates can be cultured and assayed for biological activities of interests in a high-throughput manner.

Strategic Collaborations

Our strategy includes pursuing strategic collaborations with market leaders in our target markets. In exchange for selected rights to future products, these strategic alliances provide us funding and resources to develop and commercialize a larger product portfolio. In various instances, these strategic alliances allow us to leverage our partners' established brand recognition, global market presence, established sales and distribution channels, and other industry-specific expertise. The key components of the commercial terms of such arrangements typically include some combination of the following types of fees: exclusivity fees, technology access fees, technology development fees and research support payments, as well as milestone payments, license or commercialization fees, and royalties or profit sharing from the commercialization of any products that result from the alliance. As of December 31, 2007, our strategic partners have provided us more than $300 million in funding since inception and are committed to additional funding of more than $14 million through 2012, subject to our performance under existing agreements, excluding milestone payments, license and commercialization fees, and royalties or profit sharing.

To date, we have entered into the following strategic collaborations:

Biofuels

Due to the early-stage nature of our biofuels business, we do not currently have any significant strategic collaborations in our biofuels segment.

Specialty Enzymes

Syngenta

In addition to research collaborations we entered into in 1999 and 2003 with affiliates of Syngenta AG, a related party, in December 2006, we entered into a license and research agreement to supersede and replace the aforementioned research collaborations. This license and research agreement is focused on the discovery and development of a range of novel enzymes to economically convert pre-treated cellulosic biomass to mixed sugars—a critical step in the process of biofuel production. This new license and research agreement allows us to independently develop and commercialize fermentation-based enzyme combinations from our proprietary platform, and we are free to pursue opportunities for the integrated commercialization of biofuels. Syngenta will have exclusive access to enzymes from our platform to express in plants for enhanced cost-effective production, in addition to certain rights to develop a combination of transgenically-expressed enzymes and enzymes expressed via fermentation as part of so-called "mixed delivery" enzyme cocktails. Under the terms of the new 10-year agreement Syngenta agreed to provide us guaranteed research funding of a minimum of $8 million in each of 2007 and 2008. We are also eligible to receive certain milestone and royalty payments aligned to product development success.

Either party may terminate the license and research agreement with Syngenta upon the other party's material uncured breach or default in the performance of any of its obligations under the agreement or in the event the other party becomes subject to voluntary or undismissed involuntary bankruptcy or similar proceedings. In addition, the license and research agreement with Syngenta may be terminated by Syngenta in the event that we undergo a change of control while we are performing research under the license and research agreement and either the change of control transaction is with or involving any entity that is a competitor of Syngenta or its affiliates or, as a result of the change of control, Syngenta reasonably determines in its sole judgment that such change of control would have an adverse effect on our ability or the ability of the surviving entity to perform the research collaboration agreement's research program.

In 2002, we entered into a manufacturing agreement with an affiliate of Syngenta to supply commercial quantities of Quantum phytase at a fixed price, determined by a negotiated formula, which is subject to adjustment during the term of the agreement. In addition, we are entitled to receive royalties from Syngenta on their sales of Quantum phytase. In early 2008, Syngenta sold the commercial rights to Quantum phytase to AB Enzymes; however, we still maintain manufacturing rights pursuant to the terms of our original agreement with Syngenta.

Revenue recognized under the Syngenta agreements was $12.7 million, $22.7 million and $24.3 million for the years ended December 31, 2007, 2006, and 2005.

Bunge Oils

In February 2006, we entered into an agreement with Bunge Oils, Inc., a part of Bunge North America, to discover and develop novel enzymes optimized for the production of edible oil products with enhanced nutritional or health benefits. Under the terms of the agreement, we are responsible for discovering, optimizing, and manufacturing enzymes, and Bunge is responsible for commercializing oils using new enzyme-enabled processes. Under the terms of the agreement, we have received an upfront technology access fee and will receive

full research funding for our enzyme discovery and development activities under the project. Under the terms of the agreement, we are also eligible to receive milestone payments for successful enzyme development activities as well as royalties on any products that are commercialized.

In November 2007, we entered into an agreement with Bunge Oils to promote the commercialization of Purifine and the product development and commercialization of next-generation enzyme products for seed oil processing. Pursuant to the agreement, Bunge will supply process scale-up expertise for the development of the Purifine degumming process at plant scale. In addition, Bunge will contribute to the funding of R&D projects to develop next generation enzyme products for seed oil processing. Bunge and we will also share profits on sales of Purifine enzyme.

Cargill Health and Food Technologies

In 2005, we signed a collaboration agreement with Cargill Health and Food Technologies to discover and develop novel enzymes for the cost-effective production of a proprietary Cargill product involving multiple enzyme steps, and in 2006, this collaboration agreement was expanded to include additional enzymes beyond the initial targeted set. In 2007, this agreement was further extended through May 2008. Under the terms of the agreement, we received upfront payments and research funding, and we are entitled to receive milestone payments, license fees, and royalties on products that may be developed under the agreement.

BASF

In 2001, we entered into a collaboration agreement with BASF AG to develop biocatalytic enzymes. In 2003, BASF licensed a proprietary enzyme for the biocatalytic synthesis of a chiral pharmaceutical intermediate as a result of the collaboration. Under the terms of the license, we received a license fee and became entitled to receive royalties based on the sale and/or production of the intermediate produced using the biocatalytic enzyme. In 2006, we expanded our relationship with BASF by entering into a master collaboration agreement under which we are responsible for the discovery and optimization of new enzymes, and BASF is responsible for process and product development and commercialization. Under the 2006 collaboration agreement, we have received technology access fees and research support payments, and are entitled to receive milestone payments and royalties based on sales of products resulting from the collaboration.

DuPont Bio-Based Materials

From 2003 through 2007, we collaborated with DuPont on the development of an ICBR for the production of ethanol and other value-added chemical products from corn biomass. This multi-year program was co-funded by the DOE. Our objective under the program was to discover, optimize, and manufacture a "cocktail" of enzymes that can efficiently convert the different components of an entire corn plant, including the stalk, into simple sugars that can then be used to make ethanol and other products. In 2005, we announced that the performance of the enzymes we developed under the ICBR program with DuPont substantially exceeded the initial targets set by the Department of Energy, and in 2007 we completed our work under this collaboration. DuPont has the right to exclusively license a selected number of enzymes comprising this cocktail for use in converting biomass to fuels and/or other chemicals, in exchange for the payment to us of up-front license fees and running royalties on sales of these enzymes on DuPont's revenues from licensing technologies to third parties that include one or more enzymes we may have licensed to DuPont.

Bayer Animal Health

In December 2003, we formed collaboration with Bayer Animal Health to develop and market products to prevent infectious diseases in fish. Under the agreement, we collaborated to complete the development and registration of an existing pipeline of microbially-produced vaccine candidates for aquaculture previously developed by a Bayer venture. Under the agreement, we were responsible for developing and manufacturing

these microbially-produced vaccine candidates, which were to be marketed and distributed by Bayer in designated countries on an exclusive basis. In January 2006, pursuant to a corporate reorganization, we announced our intention to discontinue further investment in the development of additional vaccine candidates.

Our single source of revenue from Bayovac SRS has been through a licensing and collaboration agreement with Microtek International Inc, who has been distributing this product to Bayer Animal Health, since its commercial launch in 2004. In late 2007, because of new entrants into the vaccine market and resulting pressure on pricing and margins, we made the strategic decision to exit the animal health vaccine market to focus on product commercialization efforts in areas that are more strategic to our current focus, namely biofuels. In connection with this decision, we terminated our Licensing and Collaboration Agreement with Microtek, and will discontinue sales of Bayovac SRS after 2008.

Government Grants and Contracts

To date we have received grants contracts for more than $45 million in funding from a number of government agencies, including the United States Department of Defense, the United States Department of Energy, and the National Institutes of Health. Revenue related to government grants and contracts was $2.7 million, $3.3 million and $10.1 million for the years ended December 31, 2007, 2006, and 2005. As a result of our strategic reorganization in 2006, we expect to continue to de-emphasize grants and contracts that are not strategic to our current market focus.

Manufacturing, Supply, and Distribution Agreements

Biofuels

Due to the early-stage nature of our biofuels business, we do not currently have any significant manufacturing, supply and distribution agreements in our biofuels segment.

Specialty Enzymes

Danisco Animal Nutrition

In May 1996, we entered into a collaboration agreement with Danisco Animal Nutrition (formerly Finnfeeds International Ltd) to jointly identify and develop a novel phytase enzyme that when used as an additive in animal feed applications allows higher utilization of phytic acid phosphates from the feed, thereby increasing its nutritional value. The addition of phytase to animal feed reduces the need for inorganic phosphorus supplementation and lowers the level of harmful phosphates that are introduced to the environment through animal waste, resulting in inorganic phosphate cost savings and a significant reduction in environmental pollution. Following the completion of the initial objectives of our agreement with Danisco, in December 1998, we entered into a license agreement with Danisco to commercialize an enzyme developed under the collaboration agreement. Under the terms of the license agreement, we granted Danisco an exclusive license to manufacture, use, and sell the developed enzyme. In consideration for the license, we are paid a royalty on related product sales made by Danisco equal to 50% of the cumulative profits generated by Danisco on such sales. In March 2003, the FDA approved Phyzyme XP Animal Feed Enzyme, which we developed in collaboration with Danisco. In October 2006, Danisco announced that the European Union, or EU, Commission had granted approval for the use of Phyzyme XP in broiler chicken feeds. Additionally, we entered into a manufacturing agreement with Danisco to supply commercial quantities of Phyzyme XP at our cost to manufacture such quantities.

License or Other Acquisition Agreements

Biofuels

Marubeni Corporation and Tsukishima Kikai Co., Ltd

In July 2001, we signed a Joint Development and Technology Transfer Agreement with the Marubeni Corporation and Tsukishima Kikai Co., Ltd., or TSK. Our technology transfer agreement with Marubeni and TSK covers certain markets in Japan, Malaysia, Thailand, and Indonesia. Under this agreement, Marubeni, TSK, and their partners have built a 1.4 million liters-per-year cellulosic ethanol production facility which is currently in start-up and commissioning, and which we believe will be the world's first plant operating commercially that will produce cellulosic ethanol from construction and demolition wood waste. This plant, in Osaka, Japan, is expected to be expanded later to produce 4 million liters-per-year of cellulosic ethanol per year. In addition, Marubeni has commenced construction on a 9.5 million gallons-per-year molasses and cellulosic ethanol facility in Thailand, and our consortium will make milestone and royalty payments to us for the use of our technology.

University of Florida Research Foundation, Inc.

UFRFI has granted us an exclusive worldwide license, or the UFRFI license, to use, develop and commercially exploit the UFRFI technology and any extensions and improvements of the technology for the production of ethanol. The UFRFI license expires on the later of October 2015 or the expiration of the last patent related to the UFRFI technology. Based on the latest to expire of the granted United States patents, the UFRFI license will extend into 2022. Pending and future patent applications related to the UFRFI technology, if granted, would extend the expiration date of the UFRFI license beyond 2026.

Specialty Enzymes

Biodiversity Access Agreements

Through genetic resource access agreements, we have obtained genetic material from a number of diverse ecosystems, including Costa Rica, Ghana, Iceland, Indonesia, Kenya, Russia, and South Africa. Pursuant to the terms of these agreements, we have obtained non-exclusive access to collect samples from these ecosystems, we own products developed and discoveries made from our use of the samples, and we pay a royalty to the other party on the sale of products derived from the samples. All of these agreements expire in 2008, are renewable, and are all subject to earlier termination. If an access agreement terminates and a new agreement is not established, we will not collect any further materials from the specified location; however, we will retain the right to use any samples we have already collected.

Other

In addition to our strategic alliances, during the normal course of business we have entered into various agreements whereby we have in-licensed or otherwise acquired patented technologies to supplement our internally developed technologies, none of which we consider individually significant or material to our specialty enzyme business.

Competition

Biofuels

The United States ethanol market is highly competitive as well as highly fragmented. According to the Renewable Fuels Association, or the RFA, the United States ethanol industry trade association, world ethanol production was 13.1 billion gallons in 2007, of which approximately 50% was produced in the United States. The United States and Brazil are the world's largest producers of ethanol. The ethanol industry in the United States consists of more than 100 production facilities and is primarily corn-based, while Brazilian ethanol production is

primarily from sugar cane. According to the RFA, the top five producers of ethanol in the United States accounted for approximately 40% of the United States ethanol industry's total estimated production capacity as of March 2008. The industry is highly fragmented, with many small, independent firms and farmer-owned cooperatives constituting the rest of the market.

In addition to corn ethanol producers, we expect to compete with other cellulosic ethanol producers using different technology platforms, as well as other providers of alternative and renewable fuels. Companies with announced pilot plant and/or demonstration plant development activities in the cellulosic ethanol space include Abengoa, BlueFire, Genencor, Iogen, Losonoco, Mascoma, Range Fuels, and Xethanol. Larger industrial companies with announced cellulosic strategies include Archer Daniels Midland, DONG Energy (Elsam), DuPont/Broin, Tate & Lyle, and Novozymes. Cellulosic gasification technologies are being pursued by companies including ClearFuels and BRI-Infinium.

Some or all of these competitors or other competitors, as well as academic, research and government institutions, are developing or may develop technologies for, and are competing or may compete with us in, the production of ethanol from cellulosic biomass or other feedstocks, such as municipal or construction waste, production of cellulosic ethanol or other fuels employing different steps within the production process, such as acid hydrolysis and/or gasification, and/or the production of other alternative fuels or biofuels, such as biobutanol. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could.

Specialty Enzymes

We are a leader in the field of biomolecule discovery and optimization from biodiversity. We are not aware of another company that has the scope and integration of technologies and processes that we have. There are, however, a number of competitors who are competent in various steps throughout our technology process. In addition, many of our potential competitors in these markets have substantially greater financial, technical, and marketing resources than we do and may succeed in developing products that would render our products or those of our strategic partners obsolete or noncompetitive. In addition, many of these competitors have significantly greater experience than we do in their respective fields. Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to, and/or are less expensive than, other products on the market. Current competitors or other companies may develop technologies and products that are more effective than ours. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. The existing approaches of our competitors or new approaches or technology developed by our competitors may be more effective than those developed by us.

Any enzyme products that we develop will compete in multiple, highly competitive markets For example, Codexis, Maxygen, Inc., Evotec, and Xencor have alternative evolution technologies. Integrated Genomics Inc., Myriad Genetics, Inc., and ArQule, Inc. perform screening, sequencing, and/or bioinformatics services. Novozymes A/S and Genencor International Inc. are involved in development, overexpression, fermentation, and purification of enzymes. There are also a number of academic institutions involved in various phases of our technology process. Many of these competitors have significantly greater financial and human resources than we do. We believe that the principal competitive factors in our market are access to genetic material, technological experience and expertise, and proprietary position. We believe that we compete favorably with respect to the foregoing factors.

Manufacturing Strategy

Biofuels

Please refer to the previous description of our biofuels planned production and commercialization strategies on page 10 through 14 of this annual report on From 10-K.

Specialty Enzymes

Our specialty enzyme manufacturing strategy is to secure contract manufacturing relationships with qualified third parties possessing sufficient fermentation capacity to meet our commercial production requirements. We add supplemental equipment as required for our specific products, and we place our own technical personnel on site at contract manufacturing facilities to plan and supervise our production. Our employees have significant experience in scale-up and production of fermentation products, including industrial enzymes. We have cleared regulatory requirements for our first commercial enzymes, and we are producing these products at commercial scale in connection with our manufacturing agreement with Fermic, S.A. de C.V., or Fermic. We manufacture products for our own sales in addition to products produced under supply agreements for three of our partners. We have our own pilot development facility that is used for developing new products and processes, providing developmental quantities of products for internal and external use, and for producing commercial quantities of smaller-scale specialty products. We will continue to depend on contractual arrangements with third parties to provide the bulk of the capital infrastructure required for large-scale commercial manufacturing.

During 2002, we entered into a manufacturing agreement with Fermic, a United States Food and Drug Administration-approved fermentation and synthesis plant located in Mexico City, to provide us with the capacity to produce commercial quantities of certain enzyme products. Based on actual and projected increased product requirements, the agreement was amended in 2004 to provide for additional capacity to be installed over the succeeding four-year period. The agreement was further modified in 2006 to adjust for certain cost increases, and to provide extended timeframes for installing incremental capacity. Under the terms of the agreement, under limited circumstances we can cancel the committed purchases with thirty months' notice. Pursuant to our agreement with Fermic, we are also obligated to reimburse monthly costs related to manufacturing activities. These costs scale up as our projected manufacturing volume increases. As of December 31, 2007, under this agreement we have made minimum commitments to Fermic of approximately $26.3 million over the next three years. In addition, under the terms of the agreement, we are required to purchase certain equipment required for fermentation and downstream processing of our products. Through December 31, 2007, we had incurred costs of approximately $16.1 million for equipment related to this agreement. During 2008, we anticipate spending as much as $2.8 million in additional equipment costs related to the manufacturing agreement. As we continue to develop our commercial manufacturing platforms, we will be required to purchase additional capital equipment under this agreement.

Fermic is currently our sole supplier for commercial-scale enzymes. We do not currently depend on any single supplier for the raw materials necessary for the operation of our business. However, we may become dependent on a single supplier in the future.

Government Regulation and Environmental Matters

Biofuels

We are, and will upon completion of our ethanol production facilities, be subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials and the health and safety of our employees. These laws and regulations can require expensive pollution control equipment or operational changes in order to limit actual or potential impacts to the environment. Violation of

these laws and regulations or permit conditions can result in substantial fines, natural resource damage claims, criminal sanctions, permit revocations and facility shutdowns. We do not anticipate a material adverse impact on its business or financial condition as a result of our efforts to comply with these requirements.

There is a risk of liability for the investigation and cleanup of environmental contamination at each of the properties we own or operate and at off-site locations where we arrange for the disposal of hazardous substances. If these substances have been or are disposed of or released at sites that undergo investigation or remediation by regulatory agencies, we may be responsible under the Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA or other environmental laws, for all or part of the costs of investigation or remediation and for damage to natural resources. We also may be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials at or from these properties. Some of these matters may require us to expend significant amounts for investigation and/or cleanup or other costs. We currently do not have material environmental liabilities relating to contamination at or from our facilities or at off-site locations where we have transported or arranged for the disposal of hazardous substances.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws or other developments could require us to make additional significant expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments for environmental controls at our ongoing operations. Present and future environmental laws and regulations and related interpretations applicable to our operations, more vigorous enforcement policies and discovery of currently unknown conditions may require substantial capital and other expenditures.

The hazards and risks associated with producing and transporting our products, such as fires, natural disasters, explosions, abnormal pressures, blowouts and pipeline ruptures, also may result in personal injury claims or damage to property and third parties. As protection against operating hazards, we maintain insurance coverage against some, but not all, potential losses. Our coverage includes physical damage to assets, employer's liability, comprehensive general liability, automobile liability and workers' compensation. We believe that our insurance is adequate and customary for our industry, but losses could occur for uninsurable or uninsured risks or in amounts in excess of existing insurance coverage. We currently doe not have pending material claims for damages or liability to third parties relating to the hazards or risks of its business.

Specialty Enzymes

All of our products to date have applications other than as regulated drug products. Non-drug biologically derived products are regulated in the United States based on their application, by either the United States Food and Drug Administration, or FDA, the Environmental Protection Agency, or EPA, or, in the case of plants and animals, the United States Department of Agriculture, or USDA. In addition to regulating drugs, the FDA also regulates food and food additives, feed and feed additives, and GRAS (Generally Recognized As Safe) substances used in the processing of food. The EPA regulates biologically derived chemicals not within the FDA's jurisdiction. Although the food and industrial regulatory process can vary significantly in time and expense from application to application, the timelines generally are shorter in duration than the drug regulatory process.

The European regulatory process for these classes of biologically derived products has undergone significant change in the recent past, as the EU attempts to replace country by country regulatory procedures with a consistent EU regulatory standard in each case. Some country-by-country regulatory oversight remains. Most other regions of the world generally accept either a United States or a European clearance together with a filing of associated data and information for their review of a new biologically derived product.

In the United States, transgenic agricultural products may be reviewed by the FDA, EPA, and USDA, depending on the plant and the trait engineered into it. The regulatory process for these agricultural products can

take up to five years of field testing under USDA oversight, and up to another two years for applicable agencies to complete their reviews.

Outside of the United States, scientifically-based standards, guidelines and recommendations pertinent to transgenic and other products intended for the international marketplace are being developed by, among others, the representatives of national governments within the jurisdiction of the standard-setting bodies, including Codex Alimentarius, the International Plant Protection Convention, and the Office des International Epizooties. The use of the existing standard-setting bodies to address concerns about products of biotechnology is intended to harmonize risk-assessment methodologies and evaluation of specific products or classes of products.

In the future we may be subject to additional laws, regulations, policies, approvals and the like of federal, state, local, municipal, foreign and other bodies.

Proprietary Rights

Our intellectual property consists of patents, copyrights, trade secrets, know-how, and trademarks. Protection of our intellectual property is a strategic priority for our business. Our ability to compete effectively depends in large part on our ability to obtain patents for our technologies and products, to maintain trade secrets, to operate without infringing the rights of others, and to prevent others from infringing on our proprietary rights. As of December 31, 2007, we owned 347 issued patents relating to our technologies and had over 400 patents pending. In addition, as of December 31, 2007, we had in-licensed over 100 patents or patent applications that we believe strengthen our patent position.

We also rely on trade secrets, technical know-how, and continuing invention to develop and maintain our competitive position. We have taken security measures to protect our trade secrets, proprietary know-how and technologies, and confidential data and continue to explore further methods of protection. Our policy is to execute confidentiality agreements with our employees and consultants upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of rendering services to us shall be our exclusive property.

Our intellectual property rights may be challenged by others. On February 14, 2007, an interference proceeding was declared in the United States Patent and Trademark Office between a United States patent assigned to us and a pending United States patent application owned by Maxygen, Inc. with allowable claims directed to GeneReassembly. On February 25, 2008 the Board of Patent Appeals and Interferences ruled in favor of Maxygen and the claims in our issued patent were cancelled. We are evaluating this ruling to determine whether an appeal might be appropriate.

We may also become involved in disputes as to whether we infringe the intellectual property rights of others. We cannot assure you, that if we are sued on this patent we would prevail. If we become involved in such a dispute, we may be exposed to a significant damage award and/or injunction that could have a material adverse effect on our business.

Employees

As of December 31, 2007, we had 280 full-time employees, 42 of whom held Ph.D. degrees. Of these employees, 203 were engaged in research and development and 77 were engaged in business development, sales and marketing, finance, and general administration. None of our employees is represented by labor unions or covered by collective bargaining agreements. We have not experienced any work stoppages and consider our employee relations to be good.

Investor Information

Financial and other information about us is available on our website (http://www.verenium.com). We make available on our website, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we file such material electronically or otherwise furnish it to the Securities and Exchange Commission.

ITEM 1A. RISK FACTORS.

Except for the historical information contained herein, this annual report on Form 10-K contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed here. Factors that could cause or contribute to differences in our actual results include those discussed in the following section, as well as those discussed in Part II, Item 7 entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere throughout this annual report on Form 10-K. You should consider carefully the following risk factors, together with all of the other information included in this annual report on Form 10-K. Each of these risk factors could adversely affect our business, operating results, and financial condition, as well as adversely affect the value of an investment in our common stock.

Risks Applicable to Our Business Generally

We should be viewed as an early stage company with new and unproven technologies

You must evaluate our business in light of the uncertainties and complexities affecting an early stage biotechnology company or cellulosic ethanol manufacturing company. Our existing proprietary technologies are new and in the early stage of development for both biofuels and specialty enzymes. We may not be successful in the commercial development of these or any further technologies, products or processes. Successful products and processes require significant development and investment, including testing, to demonstrate their cost- effectiveness prior to regulatory approval and commercialization. To date, we have commercialized ten of our own products, all in the specialty enzymes area, Purifine enzyme, Fuelzyme-LF enzyme, Pyrolase 160 enzyme, Pyrolase 200 enzyme, Cottonase enzyme, Luminase PB-100 enzyme, Luminase PB-200 enzyme, Bayovac® SRS, and blue and green fluorescent proteins. In addition, four of our collaborative partners, Invitrogen Corporation, Danisco Animal Nutrition, Givaudan Flavors Corporation, and Syngenta Animal Nutrition (formerly known as Zymetrics, Inc.), have incorporated our technologies or inventions into their own commercial products from which we have generated and/or can generate royalties. We have not yet commercialized any products or processes related to our biofuels segment. Our specialty enzyme products and technologies have generated only modest revenues to date. Because of these uncertainties, our discovery process may not result in the identification of product candidates or biofuels production processes that we or our collaborative partners will successfully commercialize. If we are not able to use our technologies to discover new materials, products, or processes with significant commercial potential, or if we are unable to sell our cellulosic ethanol or an integrated solution for the production of cellulosic ethanol, we will have significant losses in the future due to ongoing expenses for research, development and commercialization efforts and we may be unable to obtain additional funding in connection with such efforts.

We have a history of net losses, we expect to continue to incur net losses, and we may not achieve or maintain profitability.

We have incurred net losses since our inception, including a net loss of approximately $107.6 million for the year ended December 31, 2007. As of December 31, 2007, we had an accumulated deficit of approximately $437.1 million. Through June 20, 2007, the date of the closing of our merger with Celunol Corp., our losses were attributable to our specialty enzymes business. We expect to continue to incur additional losses for the foreseeable future in our specialty enzymes business as we continue to develop specialty enzyme products, and as

a result of our continued investment in our sales and marketing infrastructure to support anticipated growth in product sales. Beginning with the closing of our merger with Celunol Corp. on June 20, 2007, we began to incur additional losses as we pursue our vertical integration strategy within biofuels.

To date, most of our revenue has been derived from collaborations and grants related to our specialty enzymes business, and we expect that a significant portion of our revenue for 2008 will result from the same sources. Future revenue from collaborations is uncertain and will depend upon our ability to maintain our current collaborations, enter into new collaborations and to meet research, development, and commercialization objectives under new and existing agreements. As product revenue increases, we expect sales and marketing expenses to increase in support of increased volume. Additionally, as our business model develops, we expect other selling, general and administrative expenses to increase based on broadening our infrastructure to support continued growth in the business. In addition, the amounts we spend will impact our ability to become profitable and this will depend, in part, on:

- the progress of our research and development programs for the production of ethanol from various sources of cellulosic biomass;
- the cost of building, operating and maintaining research and production facilities;
- the number of production facilities that we ultimately attempt to develop;
- the time and expense required to prosecute, enforce and/or challenge patent and other intellectual property rights;
- how competing technological and market developments affect our proposed activities; and
- the cost of obtaining licenses required to use technology owned by others for proprietary products and otherwise.

We may not achieve any or all of our goals and, thus, we cannot provide assurances that we will ever be profitable or achieve significant revenues. If we fail to achieve profitability or significant revenues, the market price of our common stock will likely decrease.

Even if we generate significant additional revenue in our specialty enzymes business, we do not expect to achieve overall profitability for the foreseeable future, as we make additional investments to implement our vertical integration strategy within biofuels. In order for us to generate revenue, we must not only retain our existing collaborations and/or attract new ones and achieve milestones under them, but we must also develop products or technologies that we or our partners choose to commercialize and that are commercially successful and from which we can derive revenue through sales or royalties. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We continue to experience losses from operations, and we may not be able to fund our operations and continue as a going concern.

The report of our independent registered public accounting firm for the fiscal year ended December 31, 2007, contains an explanatory paragraph which states that we have incurred recurring losses from operations and, based on our operating plan and existing working capital, this raises substantial doubt about our ability to continue as a going concern. We incurred net losses of $89.7 million, $39.3 million, and $107.6 million for the years ended December 31, 2005, 2006 and 2007, and have an accumulated deficit of $437.1 million as of December 31, 2007.

We have used a significant portion of the proceeds received from sales of our 5.5% notes in April 2007 to make enhancements to our pilot facility and continue construction and development of our demonstration-scale facility in Jennings, Louisiana, to commercialize our specialty enzymes products, to continue our research and development efforts in both specialty enzymes and biofuels, and for expenses related to our merger with Celunol,

all of which have adversely affected, and will continue to adversely affect, our operating results until revenues from our specialty enzymes business and our biofuels business reach levels at which we can fully support our operating and capital expenditures.

We did not generate cash flows from operating activities during 2007 sufficient to offset our operating and capital expenditures. Based on the information currently available regarding our proposed plans and assumptions relating to operations, we anticipate that the net proceeds from our sale of the 8.0% notes in February 2008, together with our budgeted cash flow from operations, may not be sufficient to meet cash requirements for working capital and capital expenditures beyond December 2008 without additional sources of cash. As a result, it may be necessary for us to reduce or defer certain planned expenditures, to secure additional sources of revenue and/or to secure additional financing to support our planned operations. At this time, we plan to generate additional sources of cash from a combination of corporate partnerships and collaborations, federal and state grant funding, and incremental product sales. If such sources of additional cash are not sufficient to cover our budgeted cash requirements, or if they do not materialize at all, we plan to reduce or defer certain budgeted expenditures. Although we do not presently intend to seek additional equity or debt financing to fund our operations in 2008, we will continue to review our financing opportunities for suitable options. There can be no assurance that we will be able to obtain any additional sources of revenue, corporate partnerships, federal and state grant funding or other financing on acceptable terms, or at all.

If we are not able to reduce or defer our expenditures, secure additional sources of revenue or otherwise secure additional funding, we will be unable to continue as a going concern, and we may be forced to restructure or significantly curtail our operations, file for bankruptcy or cease operations.

We will need additional capital in the future. If additional capital is not available, we may have to curtail or cease operations.

We will need to raise more money to continue to fund our business in 2009 and beyond. Our capital requirements will depend on several factors, including:

- Expenditures and investments to implement our biofuels business strategy, including increased capital expenditures in relation to such strategy, for example, to build pilot, demonstration, and commercial-scale facilities.
- The level of research and development investment required to maintain our technology leadership position;
- Our ability to enter into new agreements with collaborative partners or to extend the terms of our existing collaborative agreements, and the terms of any agreement of this type;
- The success rate of our discovery efforts associated with milestones and royalties;
- Our ability to successfully commercialize products developed independently and the demand for such products;
- The timing and willingness of strategic partners and collaborators to commercialize our products that would result in royalties;
- Costs of recruiting and retaining qualified personnel; and
- Our possible acquisition or licensing of complementary technologies or acquisition of complementary businesses.

We may seek additional funds through public and private securities offerings, arrangements with corporate partners, borrowings under lease lines of credit or other sources. In addition, we expect to attempt to raise funds in the non-recourse, project-finance capital markets to finance growth of our project portfolio. Such funds may not be available to us or may be available on terms not satisfactory to us. We will also pursue federal, state and

local financial incentives such as loan guarantee programs and grants as appropriate. We currently have several applications pending for a number of such programs; however, such funds may not be available to us in adequate amounts, if at all. For example, in 2007 we learned that our application for the first phase of loan guarantee program initiated by the United States Department of Energy was denied. Our inability to raise adequate funds to support the growth of our project portfolio will materially adversely affect our business.

If we can not raise more money, we will have to implement one or more of the following remedies:

- reduce our capital expenditures,
- scale back our development of new enzyme products,
- scale back our efforts to commercialize cellulosic ethanol,
- significantly reduce our workforce,
- seek to license to others products or technologies that we otherwise would seek to commercialize ourselves, and/or
- curtail or cease operations

We recently sold $120 million of our 5.5% Convertible Senior Notes due 2027, or the Notes, and may not have the ability to raise the funds to pay interest on the Notes or to purchase the Notes on required purchase dates or upon a fundamental change.

In April 2007, we completed the sale of $120 million of Notes, the terms of which include provisions whereby on each of April 1, 2012, April 1, 2017 and April 1, 2022, holders of the Notes may require us to purchase, for cash, all or a portion of their Notes at 100% of their principal amount, plus any accrued and unpaid interest to, but excluding, that date. If a "fundamental change", which is defined in the indenture related to the Notes, occurs, holders of the Notes may require us to repurchase, for cash, all or a portion of their Convertible Notes. We may not have sufficient funds to pay the interest, purchase price or repurchase price of the Notes when due. In addition, the terms of any borrowing agreements which we may enter into from time to time may require early repayment of borrowings under circumstances similar to those constituting a "fundamental change". Those agreements may also make our repurchase of Notes an event of default under the agreements. If we fail to pay interest on the Notes or to purchase or repurchase the Notes when required, we will be in default under the indenture for the Notes.

We recently sold $71 million of our 8.0% Convertible Senior Notes due 2012, or the New Notes. We may not have the ability to issue shares or pay cash to settle obligations due under the New Notes or to purchase the New Notes on required purchase dates or upon a fundamental change.

In February 2008, we completed a private placement of $71 million of New Notes and warrants to purchase our common stock. The terms of the New Notes may obligate us to issue a number of shares of our common stock that is in excess of 19.9% of our total outstanding shares as of February 22, 2008. The issuance of any such shares requires the prior approval of our stockholders. We intend to seek such approval at our 2008 Annual Meeting of Stockholders. In the event that we do not receive shareholder approval for issuances of shares beyond 19.9% of the number of our issued and outstanding shares as of February 22, 2008, any required share issuances under the New Notes and warrants in excess of that amount will be required to be settled in cash in an amount per share equal to the closing sales price of our common stock on the conversion date. We may not have sufficient funds to pay these obligations when due.

We also may not have sufficient funds to pay the interest, purchase price or repurchase price of the New Notes when due. In addition, the terms of any borrowing agreements which we may enter into from time to time may require early repayment of borrowings under circumstances similar to those constituting a "fundamental change" under the terms of the New Notes. Those agreements may also make our repurchase of New Notes an

event of default under the agreements. If we fail to pay interest on the Convertible Notes or to purchase or repurchase the New Notes when required, we will be in default under the New Notes.

Conversion of the Notes, New Notes, and exercise of related warrants and issuance of shares of common stock in payment of interests on the new Notes will dilute the ownership interest of existing stockholders.

The conversion or exercise of some or all of the Notes, new Notes and related warrants, respectively, and the issuance of shares of common stock in payment of interests on the New Notes, could significantly dilute the ownership interests of existing stockholders. Any sales in the public market of the common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. In addition, the existence of the Notes and New Notes may encourage short selling by market participants because the conversion of the Notes and New Notes could be used to satisfy short positions, or the anticipated conversion of the Notes or New Notes into shares of our common stock could depress the price of our common stock.

If the price of our common stock is below $6.40 on April 1, 2008 the conversion price on our Notes may be subject to adjustment, and the ownership interest of existing shareholders will be subject to potential additional dilution.

Our Notes are convertible at the option of the holders at any time prior to maturity, redemption or repurchase into shares of our common stock at an initial conversion rate of 122.5490 shares per $1,000 principal amount of Convertible Notes (subject to adjustment in certain circumstances), which represents an initial conversion price of $8.16 per share. The conversion rate of the Convertible Notes may be increased if the average price of our common stock for a period ending on April 1, 2008 is less than $6.40 or in certain circumstances if a holder surrenders Convertible Notes for conversion in connection with a make-whole fundamental change that occurs before April 5, 2012. A reduction in the conversion price of the Notes could significantly dilute the ownership interests of our existing stockholders.

Our increased leverage as a result of our issuance of the Convertible Notes and New Notes may harm our financial condition and results of operations.

Our total consolidated long-term debt as of March 13, 2008, which includes the Notes and New Notes, was approximately $172.5 million and represented approximately 65% of our total capitalization as of that date. Neither our Notes or our New Notes restrict our ability to incur additional indebtedness.

Our level of indebtedness could have important consequences on our future operations, including:

- making it more difficult for us to meet our payment and other obligations under the Notes, New Notes and our other outstanding debt;
- resulting in an event of default if we fail to comply with the financial and other restrictive covenants contained in our debt agreements, which could result in all of our debt becoming immediately due and payable;
- reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes, and limiting our ability to obtain additional financing for these purposes;
- limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industries in which we operate and the general economy; and
- placing us at a competitive disadvantage compared to our competitors that have less debt or are less leveraged.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment in us.

We anticipate that we will retain our earnings, if any, for future growth and therefore do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our common stock will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

We may encounter difficulties managing our growth, which could adversely affect our results of operations.

Our strategy includes entering into and working on simultaneous projects, frequently across multiple industries, in both our specialty enzymes and biofuels businesses. This strategy places increased demands on our limited human resources and requires us to substantially expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technicians, scientists and other personnel, especially with respect to our vertical integration strategy within biofuels. Our ability to effectively manage our operations, growth, and various projects requires us to continue to improve our operational, financial and management controls, reporting systems and procedures and to attract and retain sufficient numbers of talented employees, which we may be unable to do. We may not be able to successfully implement improvements to our management information and control systems in an efficient or timely manner. In addition, we may discover deficiencies in existing systems and controls.

If we engage in any acquisitions, we will incur a variety of costs, may dilute existing stockholders, and may not be able to successfully integrate acquired businesses.

If appropriate opportunities become available, we may consider acquiring businesses, assets, technologies, or products that we believe are a strategic fit with our business. As of December 31, 2007, we have no commitments or agreements with respect to any material acquisitions. If we further pursue such a strategy, we could:

- issue additional equity securities which would dilute current stockholders' percentage ownership;
- incur substantial additional debt; or
- assume additional liabilities.

We may not be able to successfully integrate any businesses, assets, products, technologies, or personnel that we might acquire in the future without a significant expenditure of operating, financial, and management resources, if at all. In addition, future acquisitions might negatively impact our business relations with our current and/or prospective collaborative partners and/or customers. We may also need to write off goodwill associated with any acquisitions we may undertake, including our 2007 merger with Celunol Corp. Any of these adverse consequences could harm our business.

As of December 31, 2007, we identified a material weakness in internal control over financial reporting. If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud and as a result, investors may be misled and lose confidence in our financial reporting and disclosures, and the price of our common stock may be negatively affected.

The Sarbanes-Oxley Act of 2002 requires that we report annually on the effectiveness of our internal control over financial reporting. A "significant deficiency" means a deficiency or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness yet important enough to merit attention by those responsible for oversight of the Company's financial reporting. A "material weakness" is a deficiency, or a combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

In connection with the assessment of our internal control over financial reporting for the Annual Report on Form 10-K, as further described in Item 9A, we and our independent registered public accounting firm determined that as of December 31, 2007 our internal controls over financial reporting were ineffective due to a material weakness in the financial statement close process. This material weakness was caused primarily by the following:

- inadequate management oversight of the financial statement close process; and
- an insufficient number of staff accountants with a sufficient level of knowledge.

In addition, in the future our continued assessment, or subsequent assessment by our independent registered public accounting firm, may reveal additional deficiencies in our internal controls, some of which may require disclosure in future reports.

Although we have made and are continuing to make improvements in our internal controls, if we are unsuccessful in remediating the material weakness in our internal controls over financial reporting, or if we discover other deficiencies or material weaknesses, it may adversely impact our ability to report accurately and in a timely manner our financial condition and results of operations in the future, which may cause investors to lose confidence in our financial reporting and may negatively affect the price of our common stock. Moreover, effective internal controls are necessary to produce accurate, reliable financial reports and to prevent fraud. If we continue to have deficiencies in our internal controls over financial reporting, these deficiencies may negatively impact our business and operations.

Our ability to compete may decline if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights due to becoming involved in expensive lawsuits or administrative proceedings.

Our success depends in part on our ability to obtain patents and maintain adequate protection of our other intellectual property for our technologies and products in the United States and other countries. In addition, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring and preventing unauthorized use of our intellectual property is difficult and expensive, and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. If competitors are able to use our technology, our ability to compete effectively could be harmed. Although we have adopted a strategy of seeking patent protection in the United States and in foreign countries with respect to certain of the technologies used in or relating to our products, as well as anticipated production capabilities and processes, others may independently develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, we may need to license these technologies and we may not be able to obtain licenses on reasonable terms, if at all, which could cause great harm to our business.

Our commercial success depends in part on not infringing patents and proprietary rights of third parties, and not breaching any licenses or other agreements that we have entered into with regard to our technologies, products, and business. The patent positions of companies whose businesses are based on biotechnology, including our patent position, involve complex legal and factual questions and, therefore, enforceability cannot be predicted with certainty. We intend to apply for patents relating to our technologies, processes and products as we deem appropriate. Patents, if issued, may be challenged, invalidated, or circumvented. We cannot be sure that patents have not been issued that could block our ability to obtain patents or to operate as we would like. Others may develop similar technologies or duplicate technologies developed by us. There may be patents in some countries that, if valid, may block our ability to commercialize products in these countries if we are unsuccessful in circumventing or acquiring the rights to these patents. There also may be claims in published patent applications in some countries that, if granted and valid, may also block our ability to commercialize processes or products in these countries if we are unable to circumvent or license them.

Our intellectual property rights may be challenged by others. For example, in February 2007, an interference proceeding was declared in the United States Patent and Trademark Office between a United States patent assigned to us and a pending United States patent application owned by Maxygen, Inc., or Maxygen, with allowable claims directed to our GeneReassembly technology. On February 25, 2008 the Board of Patent Appeals and Interferences ruled in favor of Maxygen and the claims in our issued patent were cancelled. We are evaluating this ruling to determine whether an appeal might be appropriate. Other than this interference proceeding, we are not currently a party to any litigation with regard to our patent position. However, the biotechnology industry is characterized by frequent and extensive litigation regarding patents and other intellectual property rights. Many biotechnology companies have employed intellectual property litigation as a way to gain a competitive advantage. If we became involved in litigation or interference proceedings declared by the United States Patent and Trademark Office, or oppositions or other intellectual property proceedings outside of the United States, to defend our intellectual property rights or as a result of alleged infringement of the rights of others, we might have to spend significant amounts of money. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop selling, incorporating or using our products that use the challenged intellectual property;
- stop production of cellulosic ethanol at our production facilities;
- obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all; or
- redesign those products, facilities or processes that use any allegedly infringing technology, which may result in significant cost or delay to us, or which could be technically infeasible.

We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties. We cannot assure you that if we are sued on these patents we would prevail.

Should any third party have filed, or file in the future, patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in an interference proceeding declared by the relevant patent regulatory agency to determine priority of invention and, thus, the right to a patent for these inventions in the United States. Such a proceeding, like the one described above, could result in substantial cost to us even if the outcome is favorable. Even if successful, an interference may result in loss of claims. The litigation or proceedings could divert our management's time and efforts. Even unsuccessful claims could result in significant legal fees and other expenses, diversion of management time, and disruption in our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to compete.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information.

In order to protect our proprietary technology and processes, we also rely in part on trade secret protection for our confidential and proprietary information. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. Our policy is to execute confidentiality agreements with our employees and consultants upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, our proprietary information may be disclosed, and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

If we are unable to continue to collect genetic material from diverse natural environments, our research and development efforts and our product and process development programs could be harmed.

We collect genetic material from organisms found in diverse environments. We collect material from government-owned land in foreign countries and in areas of the United States under formal resource access agreements and from private lands under individual agreements with private landowners. We also collect samples from other environments where agreements are currently not required, such as the deep sea. If our access to materials under biodiversity access agreements or other arrangements, or where agreements are not currently required, is reduced or terminates, it could harm our internal and our collaborative research and development efforts. For example, we have voluntarily ceased collections of further samples in Yellowstone National Park pending the park's resolution of collection guidelines.

Ethical, legal, and social concerns about genetically engineered products and processes could limit or prevent the use of our products, processes, and technologies and limit our revenue.

Some of our anticipated products and processes are genetically engineered or involve the use of genetically engineered products or genetic engineering technologies. If we and/or our collaborators are not able to overcome the ethical, legal, and social concerns relating to genetic engineering, our products and processes may not be accepted. Any of the risks discussed below could result in expenses, delays, or other impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions. Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- Public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;

- Public attitudes regarding, and potential changes to laws governing, ownership of genetic material which could harm our intellectual property rights with respect to our genetic material and discourage collaborative partners from supporting, developing, or commercializing our products, processes and technologies; and

- Governmental reaction to negative publicity concerning genetically modified organisms, which could result in greater government regulation of genetic research and derivative products, including labeling requirements.

The subject of genetically modified organisms has received negative publicity, which has aroused public debate in the United States and other countries. This adverse publicity could lead to greater regulation and trade restrictions on imports and exports of genetically altered products.

Compliance with stringent laws and obtaining required government approvals may be time consuming and costly, and could delay our introduction of products.

All phases, especially the field testing, production, and marketing, of our potential products and processes are subject to significant federal, state, local, and/or foreign governmental regulation. Regulatory agencies may not allow us to produce and/or market our products in a timely manner or under technically or commercially feasible conditions, or at all, which could harm our business.

In the United States, specialty enzyme products for our target markets are regulated based on their use, by either the FDA, the EPA, or, in the case of plants and animals, the USDA. The FDA regulates drugs, food, and feed, as well as food additives, feed additives, and substances generally recognized as safe that are used in the processing of food or feed. While substantially all of our current specialty enzyme projects to date have focused on non-human applications and specialty enzyme products outside of the FDA's review, in the future we may pursue collaborations for further research and development of drug products for humans that would require FDA

approval before they could be marketed in the United States. In addition, any drug product candidates must also be approved by the regulatory agencies of foreign governments before any product can be sold in those countries. Under current FDA policy, our products, or products of our collaborative partners incorporating our technologies or inventions, to the extent that they come within the FDA's jurisdiction, may be subject to lengthy FDA reviews and unfavorable FDA determinations if they raise safety questions which cannot be satisfactorily answered, if results from pre-clinical or clinical trials do not meet regulatory requirements or if they are deemed to be food additives whose safety cannot be demonstrated. An unfavorable FDA ruling could be difficult to resolve and could prevent a product from being commercialized. Even after investing significant time and expenditures, our collaborators may not obtain regulatory approval for any drug products that incorporate our technologies or inventions. Our collaborators have not submitted an investigational new drug application for any product candidate that incorporates our technologies or inventions, and no drug product candidate developed with our technologies has been approved for commercialization in the United States or elsewhere. The EPA regulates biologically derived chemical substances not within the FDA's jurisdiction. An unfavorable EPA ruling could delay commercialization or require modification of the production process resulting in higher manufacturing costs, thereby making the product uneconomical. In addition, the USDA may prohibit genetically engineered plants from being grown and transported except under an exemption, or under controls so burdensome that commercialization becomes impracticable. Our future products may not be exempted by the USDA.

In order to achieve and maintain market acceptance, our biofuels business will need to meet a significant number of environmental and other regulations and standards established by various federal, state and local regulatory agencies. As these regulations and standards evolve, and if new regulations or standards are implemented, we may be required to modify our proposed facilities and processes or develop and support new facilities or processes and this will increase our costs. Any failure to comply, or delays in compliance, with the various existing and evolving industry regulations and standards could prevent or delay our production of ethanol and the provision of related services including plant operation and engineering services in support of anticipated licenses of our technology, which could harm our biofuels business. Market uncertainty regarding future policies may also affect our ability to develop new ethanol production facilities or license our technologies to third parties. Any inability to address these requirements and any regulatory changes could have a material adverse effect on our biofuels business, financial condition and operating results.

Our results of operations may be adversely affected by environmental, health and safety laws, regulations and liabilities.

We are subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials, and the health and safety of our employees. In addition, some of these laws and regulations require our contemplated facilities to operate under permits that are subject to renewal or modification. These laws, regulations and permits can often require expensive pollution control equipment or operational changes to limit actual or potential impacts to the environment. A violation of these laws and regulations or permit conditions can result in substantial fines, natural resource damages, criminal sanctions, permit revocations and/or facility shutdowns.

Furthermore, as we operate our business, we may become liable for the investigation and cleanup of environmental contamination at each of the properties that we own or operate and at off-site locations where we may arrange for the disposal of hazardous substances. If these substances have been or are disposed of or released at sites that undergo investigation and/or remediation by regulatory agencies, we may be responsible under Comprehensive Environmental Response, Compensation and Liability Act, or other environmental laws for all or part of the costs of investigation and/or remediation, and for damages to natural resources. We may also be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials at or from those properties. Some of these matters may require expending significant amounts for investigation, cleanup, or other costs.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws, or other developments could require us to make additional significant expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments for environmental controls at ethanol production facilities. Present and future environmental laws and regulations, and interpretations thereof, applicable to ethanol operations, more vigorous enforcement policies and discovery of currently unknown conditions may require substantial expenditures that could have a material adverse effect on our results of operations and financial position.

We use hazardous materials in our business. Any claims relating to improper handling, storage, or disposal of these materials could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development processes involve the controlled use of hazardous materials, including chemical, radioactive, and biological materials. Our operations also produce hazardous waste products. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state, and local laws and regulations govern the use, manufacture, storage, handling, and disposal of these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. In addition, compliance with applicable environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development, or production efforts.

Many competitors and potential competitors who have greater resources and experience than we do may develop products and technologies that make ours obsolete or may use their greater resources to gain market share at our expense.

The biotechnology industry is characterized by rapid technological change, and the area of biomolecule discovery and optimization from biodiversity is a rapidly evolving field. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. Technological development by others may result in our products and technologies becoming obsolete.

We face, and will continue to face, intense competition in our specialty enzymes business. There are a number of companies who compete with us in various steps throughout our technology process. For example, Codexis, Maxygen, Inc., Evotec, and Xencor have alternative evolution technologies. Integrated Genomics Inc., Myriad Genetics, Inc., and ArQule, Inc. perform screening, sequencing, and/or bioinformatics services. Novozymes A/S, Genencor International Inc., and Dyadic International are involved in development, overexpression, fermentation, and purification of enzymes. There are also a number of academic institutions involved in various phases of our technology process. Many of these competitors have significantly greater financial and human resources than we do. These organizations may develop technologies that are superior alternatives to our technologies. Further, our competitors may be more effective at implementing their technologies for modifying DNA to develop commercial products.

The ethanol production and marketing industry is extremely competitive. In addition to cellulosic ethanol producers using different technology platforms, our competitors will be grain ethanol producers as well as other providers of alternative and renewable fuels. Significant competitors in the grain ethanol production and marketing industry include Archer Daniels Midland Company, Cargill, Inc., VeraSun Energy Corporation, and Aventine Renewable Energy, Inc. Many companies are engaged in research and development activities in the emerging cellulosic ethanol industry, and companies with announced pilot facility and/or demonstration facility development activities in the cellulosic ethanol space include Abengoa Bioenergy Corp., BlueFire, Genencor, Iogen Corporation, Losonoco, Mascoma, Range Fuels, and Xethanol. Larger industrial companies with announced cellulosic strategies include Archer Daniels Midland, DONG Energy (Elsam), DuPont/POET (formerly known as Broin), Tate & Lyle, and Novozymes. Cellulosic gasification technologies are being pursued by companies including ClearFuels and BRI-Infinium. Some or all of these competitors or other competitors, as

well as academic, research and government institutions, are developing or may develop technologies for, and are competing or may compete with us in, the production of ethanol from cellulosic biomass or other feedstocks, such as municipal or construction waste, production of cellulosic ethanol or other fuels employing different steps within the production process, such as acid hydrolysis and/or gasification, and/or the production of other alternative fuels or biofuels, such as biobutanol. Some of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our lack of resources relative to many of our significant competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and prevent us from achieving any market share, sales and/or profitability, adversely affect our results of operations and financial position.

Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Current competitors or other companies may develop technologies and products that are more effective than ours. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. The existing approaches of our competitors or new approaches or technology developed by our competitors may be more effective than those developed by us.

We may not be able to successfully integrate following the merger between Diversa Celunol, or we may not realize the anticipated strategic, financial and other goals of the merger.

We completed our merger with Celunol Corp. on June 20, 2007 and immediately began the integration of the two companies. We are exposed to a number of risks in connection with the integration of the Diversa and Celunol businesses, including:

- we may find that we are unable to realize the synergies we anticipated when we combined the companies in the merger or that the economic conditions underlying our merger decision have changed;
- we may have difficulty integrating the assets, technologies, operations or personnel, or retaining the key personnel of the two companies; and
- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically or culturally diverse enterprises.

Additionally, we do not expect our businesses to be completely integrated for quite some time and expect that our on-going integration efforts will continue to demand time and energy from our management. We also cannot predict how our customers, suppliers and collaborators will react to the combined business and our integrated operations and cannot assure you that we will be successful in preserving our development, collaboration, distribution, marketing, strategic and other important relationships. In addition, a portion of our common stock which was paid as consideration in the merger remains in an escrow account and is subject to indemnification claims that we may make. Claims for indemnification against this escrow fund may result in disagreements with members of our management, which may in turn distract them from their duties and impair our management's ability to work together successfully.

If we lose key personnel or are unable to attract and retain additional personnel, it could delay our product development programs, harm our research and development efforts, and we may be unable to pursue collaborations or develop our own products.

The loss of any key members of our senior management, or business development or scientific staff, or failure to attract or retain other key management, business development or scientific employees, could prevent us from developing and commercializing biofuels and cellulosic ethanol and other new products and entering into

collaborations or licensing arrangements to execute on our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the San Diego and New England areas, or due to competition for, or availability of, personnel with the qualifications or experience necessary for our biofuels business, particularly in the Jennings, Louisiana area. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience constraints that will adversely affect our ability to meet the demands of our collaborative partners in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists, including molecular biologists, biochemists, and engineers. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are at-will employees, which means that either the employee or we may terminate their employment at any time.

Several members of our senior management team are also new and have not worked together for a significant length of time and they may not be able to work together effectively to develop and implement our business strategies and achieve our business objectives. Management will need to devote significant attention and resources to preserve and strengthen relationships with employees, customers and others. If our management team is unable to develop successful business strategies, achieve our business objectives, or maintain positive relationships with employees, customers, suppliers or other key constituencies, our ability to grow our business and successfully meet operational challenges could be impaired.

Our planned activities will require additional expertise in specific industries and areas applicable to the products and processes developed through our technologies or acquired through strategic or other transactions, especially in our biofuels business. These activities will require the addition of new personnel, including management, and the development of additional expertise by existing management personnel. The inability to acquire these services or to develop this expertise could impair the growth, if any, of our business.

We may be sued for product liability.

We may be held liable if any product or process we develop, or any product which is made or process which is performed with the use of any of our technologies, causes injury or is found otherwise unsuitable during product testing, manufacturing, marketing, or sale. We currently have limited product liability insurance covering claims up to $5 million that may not fully cover our potential liabilities. In addition, if we attempt to obtain additional product liability insurance coverage, this additional insurance may be prohibitively expensive, or may not fully cover our potential liabilities. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of products or processes developed by us or our collaborative partners. If we are sued for any injury caused by our products, our liability could exceed our total assets.

Risks Specific to Our Biofuels Business

We may not be successful in the development of individual steps in, or an integrated process for, the production of ethanol from cellulosic biomass at commercial scale in a timely or economic manner or at all.

The production of ethanol from cellulosic biomass requires multiple integrated steps, including:

- obtaining the cellulosic raw material;
- pretreatment of the biomass to make its constituent fibers accessible to enzymes;
- treatment with enzymes to produce fermentable sugars;
- fermentation by organisms to produce ethanol from the fermentable sugars;

- distillation of the ethanol to concentrate and separate it from other materials;

- purification of the ethanol; and

- storage and distribution of the ethanol.

We are currently focused on the pilot-scale research and development of such processes in our pilot facility in Jennings, Louisiana, as well as the construction of a demonstration-scale facility located at the same site that is intended to demonstrate the economics of cellulosic ethanol production using our proprietary processes. We have not yet attempted to perform any elements of the cellulosic ethanol production process beyond pilot scale. We have limited experience with sourcing cellulosic feedstocks and distilling ethanol produced from biomass, and we have no experience storing and/or distributing significant volumes of ethanol produced from biomass sources. To date, we have focused the majority of our research and development efforts on producing ethanol from corn stover, sugarcane bagasse, and wood. The technological and logistical challenges associated with each one of these processes are extraordinary, and we may not be able to resolve such difficulties in a timely or cost effective fashion, or at all. Even if we are successful in developing an economical commercial-scale process for converting a particular cellulosic biomass to cellulosic ethanol, we may not be able to adapt such process to other biomass raw materials.

While we have a pilot-scale cellulosic ethanol facility in operation and are in the late stages of construction of a demonstration-scale cellulosic ethanol facility, we have yet to begin construction of a large-scale commercial cellulosic ethanol facility. While we have estimated the construction and operating costs for our initial large-scale commercial cellulosic ethanol facilities, these assumptions may prove to be incorrect. Accordingly, we cannot be sure that we can manufacture cellulosic ethanol in an economical manner at large scale. If we fail to commence large-scale production in a timely manner or to develop large-scale manufacturing capacity and experience, or fail to manufacture cellulosic ethanol economically on a commercial scale or in commercial volumes, our commercialization of cellulosic ethanol and our business, financial condition, and results of operations will be materially adversely affected.

We may not be able to implement our planned expansion strategy to build, own and operate commercial-scale cellulosic ethanol facilities, including as a result of our failure to successfully manage our growth, which would prevent us from achieving our goals.

Our strategy currently includes the continued development of our pilot-scale facility for process development, development and construction of a demonstration plant to validate the economics of our processes at commercial-scale volumes of cellulosic ethanol production, and development and construction of commercial scale plants for the production of large quantities of ethanol for commercial distribution and sale. We plan to grow our business by investing in new facilities and/or acquiring existing facilities, either independently or with potential development partners, as well as pursuing other business opportunities such as the production of other renewable fuels to the extent we deem those opportunities advisable. We believe that there is increasing competition for suitable production sites. We may not find suitable sites for construction of new facilities, suitable acquisition candidates or other suitable expansion opportunities.

We must also obtain numerous regulatory approvals and permits in order to construct and operate facilities. These requirements may not be satisfied in a timely manner or at all. Federal and state governmental requirements may substantially increase our costs, which could have a material adverse effect on our results of operations and financial position. Our expansion plans may also result in other unanticipated adverse consequences, such as the diversion of management's attention from our existing operations and products.

Rapid growth, resulting from our operation or other involvement with cellulosic ethanol facilities or otherwise, may impose a significant burden on our administrative and operational resources. Our ability to effectively manage our growth will require us to substantially expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technicians and other personnel. We may be unable to do so.

We may not find additional appropriate sites for new facilities, or development partners with whom we can implement our growth strategy, and we may not be able to finance, construct, develop or operate these new facilities successfully. We also may be unable to find suitable acquisition candidates. Accordingly, we may fail to implement our planned expansion strategy, including as a result of our failure to successfully manage our growth, and as a result, we may fail to achieve our goals.

We have experienced, and may continue to experience, significant delays or cost overruns related to our cellulosic ethanol plant construction projects.

We have recently experienced cost overruns for our demonstration plant. We may continue to experience significant delays or cost overruns as a result of a variety of factors, such as shortages of workers or materials, transportation constraints, adverse weather, unforeseen difficulties or labor issues, any of which could prevent us from commencing operations as expected at our facilities.

Our construction costs may also increase to levels that would make a new facility too expensive to complete or, for demonstration and commercial-scale plants, unprofitable to operate. Contractors, engineering firms, construction firms and equipment suppliers may lack the expertise in cellulosic ethanol, which may result in delays or cost overruns. Contractors, engineering firms, construction firms and equipment suppliers also receive requests and orders from other clients, including other ethanol companies and, therefore, we may not be able to secure their services or products on a timely basis or on acceptable financial terms.

If we are unable to successfully commercialize our technology, our business may fail to generate sufficient revenue, if any, which would adversely affect our operating results.

We expect to derive a significant portion of our revenue from the commercialization of our proprietary technology for producing fuel-grade cellulosic ethanol by developing, either alone or with partners, cellulosic ethanol production plants and by licensing our proprietary technology. In order to develop a viable cellulosic ethanol business, we will need to:

- successfully complete the construction of our demonstration facility;
- successfully design, finance and construct commercial-scale cellulosic ethanol facilities; and
- prove that we can operate commercial-scale ethanol facilities at costs that are competitive with grain-based ethanol facilities, other cellulosic ethanol technologies that may be developed and other alternative fuel technologies that may be developed.

Currently, there are no commercial-scale cellulosic ethanol production plants in operation in the United States, and we have no previous experience developing, constructing or operating commercial-scale cellulosic ethanol production plants. We are in the late stages of construction of our first demonstration-scale cellulosic ethanol facility. In addition, we have only recently completed an upgrade of our pilot facility in Jennings, Louisiana, and we expect to continue to make enhancements and modifications to the pilot facility in parallel with the construction and start-up of our demonstration-scale facility in Jennings. There can be no assurance that we will be able to develop and operate cellulosic ethanol production plants on a commercial scale, that we will be able to successfully license our technology to third parties, or that any cellulosic ethanol facilities developed by us or our licensees can be profitable.

We may be required to write down the value of our goodwill.

As of December 31, 2007, we have recorded $106.1 million of goodwill resulting from our merger with Celunol. Current accounting rules require that goodwill and certain intangible assets be assessed for impairment using fair value measurement techniques. If the carrying amount of a reporting unit exceeds its fair value, then a goodwill impairment test is performed to measure the amount of the impairment loss, if any. The goodwill impairment test compares the implied fair value of the reporting unit's goodwill with the carrying amount of that

goodwill. The implied fair value of goodwill is determined in the same manner as in a business combination. Determining the fair value of the implied goodwill is judgmental in nature and often involves the use of significant estimates and assumptions, including projection and timing of future cash flows, discount rates reflecting the risk inherent in future cash flows, perpetual growth rates, determination of appropriate market comparables, and determination of whether a premium or discount should be applied to comparables. These estimates and assumptions could have a significant impact on whether or not an impairment charge is recognized and also the magnitude of any such charge. Estimates of fair value are primarily determined using discounted cash flows and market comparisons. The plans and estimates used to value these assets may be incorrect. If our actual results are worse than the plans and estimates we used to assess the recoverability of Celunol's assets in connection with the merger, or our plans and estimates are otherwise incorrect, we could incur impairment charges relating to the goodwill resulting from our merger with Celunol, including up to the full $106.1 million of goodwill.

We may not realize the economic return expected from our acquired in-process research and development.

We allocated $42.4 million of the purchase price to acquired in-process research and development projects. Acquired in-process research and development, or IPR&D, represents the valuation of acquired, to-be-completed research projects. Prior to the merger, Celunol's ongoing research and development initiatives primarily involved the development of its patented and proprietary biotechnology to enable production of fuel-grade ethanol from cellulosic biomass materials. As of the merger date, pursuant to authoritative guidance under SFAS No. 2, *"Accounting for Research and Development Costs,"* these projects were not determined to have reached technological feasibility and have no alternative future use. Accordingly, the amounts allocated to those projects were expensed in the accompanying statements of operations in June 2007, the period in which the merger was consummated.

The values of the research projects, namely, our "Generation 1" or "Gen 1" technology, were determined by estimating the costs to develop the acquired technology into commercially viable products, estimating the resulting net cash flows from the projects, and discounting the net cash flows to their present value. These cash flows were estimated by forecasting total revenue expected from these products and then deducting appropriate operating expenses, cash flow adjustments and contributory asset returns to establish a forecast of net cash flows arising from the acquired in-process technology. These cash flows were substantially reduced to take into account the time value of money and the risks associated with the inherent difficulties and uncertainties given the projected stage of development of these projects at closing. Due to the nature of the forecast and the risks associated with the projected growth and profitability of the developmental projects, discount rates of 40% were considered appropriate for valuation of the IPR&D. We believe that these discount rates were commensurate with the projects' stage of development and the uncertainties in the economic estimates described above.

Since our IPR&D represents costs for technology that has not yet reached technological feasibility, we have, and will continue to, require substantial investment in the future development and commercialization of our Gen 1 technology. While we expect to deploy this technology at a commercial scale as early as 2010, we can not assure you that we will ever be successful in commercializing this technology. If these projects are not successfully developed, our sales and profitability will be adversely affected in future periods.

If we are unable to successfully operate our pilot cellulosic ethanol production facility or to successfully construct and operate our demonstration-scale cellulosic ethanol production facility, we may be unable to proceed with the development of cellulosic facilities on a commercial-scale, which would have a material adverse effect on our business.

We have not built or operated demonstration-scale or commercial-scale cellulosic ethanol facilities to date. The development of a portfolio of ethanol production facilities is dependent on the performance of our pilot facility, which we continue to upgrade, as well as our demonstration facility now under construction. The operation of our pilot facility and the construction of our demonstration facility might be subject to significant

interruption and delay in case of a major accident or damage from severe weather or other natural disasters, or due to supply shortages of necessary materials and services which we, along with other participants in the ethanol industry, have recently experienced. For these and other reasons, the operation of our pilot facility and the construction of our demonstration facility may be subject to significant cost overruns from our budgeted amounts. We anticipate that we will need to obtain additional financing to fund certain capital and operating expenditures for our pilot facility and demonstration facility which may not be available on satisfactory terms, or at all. If we are unable to acquire additional financing to fund these capital or operating expenditures, our progress at the pilot facility and demonstration facility could be significantly delayed or curtailed until such financing is available. In addition, our demonstration facility, once constructed and operational, may not produce ethanol in sufficient quantities or the operating costs for the facility may be significantly higher than we have expected. If we are unable to produce ethanol in the demonstration facility at competitive variable and/or total costs, we may be unable to proceed with the development of commercial-scale facilities.

In order to successfully develop commercial-scale facilities, we will need to address siting, construction and other issues, and if we fail to successfully overcome these issues we will not be able to commercialize our technology.

Even if we can demonstrate that our technology can be deployed on a commercial-scale to produce cellulosic ethanol on a cost-competitive basis, in order to be successful we must develop a number of commercial-scale projects. In order to successfully develop commercial-scale projects, we must overcome a number of risks and uncertainties including the following:

- *Sites.* In order to develop commercial facilities, we will need to identify and obtain rights to appropriate sites. In evaluating and obtaining sites, we will need to address a number of issues, including the proximity to potential feedstocks and proximity to transportation infrastructure and end-user markets. Competition for suitable cellulosic ethanol production sites may increase as the market evolves. We may not find suitable additional sites for the construction of new facilities.

- *Joint Venture Partners.* In addition to identifying sites for projects we develop on our own, we may seek to develop commercial facilities through joint venture partners. We may not find suitable joint venture partners for construction of new facilities. As the market for cellulosic ethanol projects evolves, competition may increase for potential joint venture partners with favorable sites.

- *Supply of Cellulosic Feedstock*. Operation of commercial facilities requires a continuous long-term supply of feedstocks that are generally located in geographic proximity to the facility. We may not be successful in obtaining long-term supply agreements, or our supply of feedstocks could be disrupted by weather, climate, natural disasters, or other factors. In addition, prices and competition for feedstocks could increase, adversely effecting our ability to operate economically or at all.

- *Off-Take Arrangements.* In order to successfully develop a commercial-scale facility, we will need to enter into off-take arrangements for the sale of ethanol to be produced at that facility. If we are unable to enter into appropriate off-take arrangements, we may be unable to obtain project financing for the particular facility.

- *Construction.* We will need to identify and retain a significant number of contractors, engineering firms, construction firms and equipment suppliers on satisfactory terms in order to be able to develop and construct multiple commercial-scale cellulosic ethanol facilities. These vendors also receive requests and orders from other companies in the ethanol and other industries and, therefore, we may not be able to secure their services or products on a timely basis or on acceptable financial terms. If we are unable to enter into construction and supply contracts on satisfactory terms, we will not be able to obtain financing for our commercial scale projects. In addition, our construction costs may also increase to levels that would make a new facility too expensive to develop or unprofitable to operate.

- *Operating Risks.* If we are able to build commercial-scale ethanol facilities, our operation of these facilities may be subject to labor disruptions and unscheduled downtime, or other operational hazards

inherent in the ethanol industry, such as equipment failures, fires, explosions, abnormal pressures, blowouts, pipeline ruptures, transportation accidents and natural disasters. Some of these operational hazards may cause personal injury or loss of life, severe damage to or destruction of property and equipment or environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties. Our insurance may not be adequate to fully cover the potential operational hazards described above. Any delay in development or interruption due to these potential operational risks could result in substantial losses and material adverse effects on our results of operations.

We will rely heavily on future strategic partners.

An important component of our current business plan is to enter into strategic partnerships:

- to provide capital, equipment and facilities, including significant capital for the construction of cellulosic ethanol research and production facilities;
- to provide expertise in performing certain process development, production and logistical activities;
- to provide funding for research and development programs, process development programs and commercialization activities;
- to provide access to cellulosic feedstocks; and
- to support or provide sales, marketing and distribution services.

These arrangements with collaborative partners are, and will continue to be, critical to our success in implementing our vertical integration biofuels strategy and manufacturing and selling cellulosic ethanol profitably. We cannot guarantee that any collaborative relationship(s) will be entered into, or if entered into, will continue or be successful. Failure to make or maintain these arrangements or a delay or failure in a collaborative partner's performance under any such arrangements would materially adversely affect our business and financial condition.

We cannot control our collaborative partners' performance or the resources they devote to our programs. We may not always agree with our partners nor will we have control of our partners' activities on behalf of any alliance. The performance of our programs may be adversely affected and programs may be delayed or terminated or we may have to use funds, personnel, equipment, facilities and other resources that we have not budgeted to undertake certain activities on our own as a result of these disagreements. Performance issues, program delays or termination or unbudgeted use of our resources may materially adversely affect our business and financial condition.

Disputes may arise between us and a collaborative partner and may involve the issue of which of us owns the technology and other intellectual property that is developed during a collaboration or other issues arising out of the collaborative agreements. Such a dispute could delay the program on which we are working or could prevent us from obtaining the right to commercially exploit such developments. It could also result in expensive arbitration or litigation, which may not be resolved in our favor. Our collaborative partners could merge with or be acquired by another company or experience financial or other setbacks unrelated to our collaboration that could, nevertheless, adversely affect us.

In order to gain broad acceptance of our technology, we will need to enter into licensing arrangements with third parties. If we fail to successfully identify and enter into licenses with qualified third parties or to successfully manage existing and future licensing relationships, we may not be able to successfully commercialize our technology.

We currently have a technology transfer agreement in place with Marubeni Corporation and Tsukishima Kikai Co., Ltd. We also expect that a significant portion of our future revenue will be derived from licensing agreements that we will enter into in the future. If we fail to enter into and maintain license agreements, we may

not be able to gain broad acceptance for our technology, grow our business or generate sufficient revenues to support our operations. Our future license opportunities could be harmed if:

- we do not successfully operate our pilot facility or successfully construct and operate our demonstration facility;
- we are unable to successfully develop commercial-scale facilities;
- we develop processes or enter into licenses that conflict with the business objectives of our existing licensees;
- we disagree with our licensees as to rights to intellectual property we develop or our licensees' research programs or commercialization activities;
- we are unable to manage multiple licensee relationships;
- our licensees become our competitors or enter into agreements with our competitors;
- our licensees become less willing to expend their resources on research or development due to general market conditions or other circumstances beyond our control; or
- consolidation in our target markets limits the number of potential strategic licensees or we are unable to negotiate additional license agreements having terms satisfactory to us.

We may not be able to develop manufacturing capacity sufficient to meet demand in an economical manner or at all.

If demand for cellulosic ethanol increases beyond the scope of our production facilities, we may incur significant expenses in the expansion and/or construction of production facilities and increases in personnel in order to increase production capacity. To finance the expansion of a commercial-scale production facility is complex and expensive. We cannot assure you that we will have the necessary funds to finance the development of production facilities, or that we will be able to develop this infrastructure in a timely or economical manner, or at all.

The feedstocks, raw materials and energy necessary to produce ethanol may be unavailable or may increase in price, adversely affecting our sales and profitability.

We intend to use various sources of cellulosic biomass, such as sugarcane bagasse, dedicated energy crops, agricultural residues (which may include corn stover), switchgrass and wood, to make cellulosic ethanol. However, rising prices for any or all of these feedstocks would produce lower profit margins and, therefore, represent unfavorable market conditions. This is especially true since market conditions generally would not allow us to pass along increased costs to customers, because the price of ethanol is primarily determined by other factors, such as the price of oil and gasoline. Additionally, once we elect to use a particular feedstock in the ethanol production process, it may be technically or economically impractical to change to a different feedstock. At certain levels, feedstock prices may make ethanol uneconomical to use in markets where the use of fuel oxygenates is not mandated.

Weather conditions and other factors affecting crop yields, farmer planting decisions, and general economic, market and regulatory factors may influence the availability, transportation costs and price of biomass feedstocks used in our pilot facility and to be used in our demonstration- and commercial-scale production facilities. There can be no guarantee that feedstock costs to us may not increase over time. Government policies and subsidies with respect to agriculture and international trade, and global and local demand and supply, also impact the price and transportation costs of agricultural products. The significance and relative effects of these factors on the potential cost of feedstocks are difficult to predict. Any increase in the cost of feedstocks will result in increased costs, and negative effects on our operating results. Other inputs to our cellulosic-ethanol production process will also be subject to price variation. These include chemicals, nutrients, enzymes, acid and lime, among others.

Increases in the costs of these materials, or our failure to achieve reductions in the use of such materials, could increase our operating costs and have negative effects on our operating results. The gross margin of our anticipated ethanol production business depends principally on the spread between the price for ethanol and our production costs. Any increase in production costs or decrease in the demand or price of ethanol will negatively affect our business.

The production of ethanol also requires a significant amount of other raw materials and energy, primarily water, electricity and natural gas. We plan to utilize the lignin remaining after the pretreatment of cellulosic biomass as a source of energy to power our cellulosic ethanol production facilities, however we may not be successful in using lignin as a source of energy and, if so, we may have to supplement our energy use with other sources, including electricity and natural gas. The prices of electricity and supplemental fuels such as natural gas have fluctuated significantly in the past and may fluctuate significantly in the future. Local water, electricity and gas utilities may not be able to reliably supply the water, electricity and supplemental fuels that our facilities will need or may not be able to supply such resources on acceptable terms. In addition, if there is an interruption in the supply of water or energy for any reason, we may be required to halt ethanol production.

The high concentration of our efforts towards developing processes for the production of cellulosic ethanol could increase our losses, especially if demand for ethanol declines.

If we are successful in producing and marketing cellulosic ethanol, our revenue will be derived primarily from sales of ethanol. Ethanol competes with several other existing products and other alternative products could also be developed for use as fuel additives. An industry shift away from ethanol or the emergence of new competing products may reduce the demand for ethanol. A downturn in the demand for ethanol would significantly and adversely affect any sales and/or profitability.

The market price of ethanol is volatile and subject to significant fluctuations, which may cause our profitability from the production of cellulosic ethanol to fluctuate significantly.

The market price of ethanol is dependent upon many factors, including the price of gasoline, which is in turn dependent upon the price of petroleum. Petroleum prices are highly volatile and difficult to forecast due to frequent changes in global politics and the world economy. The distribution of petroleum throughout the world is affected by incidents in unstable political environments, such as Iraq, Iran, Kuwait, Saudi Arabia, Nigeria, Venezuela, the former U.S.S.R. and other countries and regions. The industrialized world depends critically upon oil from these areas, and any disruption or other reduction in oil supply can cause significant fluctuations in the prices of oil and gasoline. We cannot predict the future price of oil or gasoline and may establish unprofitable prices for the sale of ethanol due to significant fluctuations in market prices. In recent years, the prices of gasoline, petroleum and ethanol have all reached historically high levels. If the prices of gasoline and petroleum decline, we believe that the demand for and price of ethanol may be adversely affected. Fluctuations in the market price of ethanol may cause our revenue and profitability to fluctuate significantly from quarter-to-quarter and year-to-year.

We believe that the production of ethanol is expanding rapidly. There are a number of new plants under construction and planned for construction throughout the United States. We expect existing ethanol plants to expand by increasing production capacity and actual production. Increases in the demand for ethanol may not be commensurate with increasing supplies of ethanol. Thus, increased production of ethanol may lead to lower ethanol prices. Also, the increased production of ethanol could result in increased demand for feedstocks for the production of ethanol. This could result in higher prices for feedstocks and cause higher ethanol production costs and, in the event that we are unable to pass increases in the price of feedstocks on to our customers, will result in lower profits. We cannot predict the future price of ethanol or feedstocks. Any material decline in the price of ethanol, or any material increase in the price of feedstocks, will adversely affect any sales and/or profitability.

If ethanol demand decreases, does not increase, or does not increase as much as supply, there may be excess capacity in our industry which would likely cause a decline in ethanol prices, adversely impacting our results of operations, cash flows and financial condition.

Domestic fuel ethanol production has increased steadily from 1.5 billion gallons per year in 1999 to 6.5 billion gallons per year in 2007, according to the RFA. In addition, there is a significant amount of capacity being added to the fuel ethanol industry, including capacity that may be added as a result of government programs and/or incentives, and capacity added to address anticipated increases in demand. However, demand for ethanol may not increase as quickly as expected, or at all. If the ethanol industry has excess capacity, a fall in prices will likely occur which will have an adverse impact on the viability of our vertical integration strategy within biofuels, as well as our results of operations, cash flows and financial condition if we proceed to market ethanol. Demand for ethanol could be impaired due to a number of factors, including regulatory developments and reduced United States gasoline consumption. Reduced gasoline consumption could occur as a result of increased gasoline or oil prices. For example, price increases could cause businesses and consumers to reduce driving or acquire vehicles with more favorable gasoline mileage capabilities.

The United States ethanol industry is highly dependent upon a myriad of federal and state legislation and regulation and any changes in such legislation or regulation could materially adversely affect our results of operations and financial condition.

The elimination or significant reduction in the Federal Excise Tax Credit could have a material adverse effect on our results of operations.

The production of ethanol is made significantly more competitive by federal tax incentives. The Volumetric Ethanol Excise Tax Credit, or VEETC, program, which is scheduled to expire on December 31, 2010, allows gasoline distributors that blend ethanol with gasoline to receive a federal excise tax rate reduction for each blended gallon they sell regardless of the blend rate. The current federal excise tax on gasoline is $0.184 per gallon, and is paid at the terminal by refiners and marketers. If the fuel is blended with ethanol, the blender may claim a $0.51 tax credit for each gallon of ethanol used in the mixture. The VEETC may not be renewed prior to its expiration in 2010, or if renewed, it may be renewed on terms significantly less favorable than current tax incentives. In addition, the blenders' credits, as well as other federal and state programs benefiting ethanol (such as tariffs), generally are subject to United States government obligations under international trade agreements, including those under the World Trade Organization Agreement on Subsidies and Countervailing Measures, and might be the subject of challenges thereunder, in whole or in part. The elimination or significant reduction in the VEETC could have a material adverse effect on our results of operations.

Waivers of the Renewable Fuels Standard minimum levels of renewable fuels included in gasoline, or the lapse of the increased weight given for the use of cellulosic ethanol for compliance with the Renewable Fuels Standard, could have a material adverse effect on our results of operations.

Under the Energy Policy Act of 2005, the Department of Energy, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the Renewable Fuels Standard, or RFS, mandate with respect to one or more states if the Administrator determines that implementing the requirements would severely harm the economy or the environment of a state, a region or the United States, or that there is inadequate supply to meet the requirement. Additionally, under the RFS, through 2013, one gallon of cellulosic ethanol is credited as 2.5 gallons for compliance with the RFS. Any waiver of the RFS with respect to one or more states or with respect to a particular year, or the lapse or alteration of the extra weight cellulosic ethanol is given in complying with the RFS, could adversely affect demand for ethanol and could have a material adverse effect on our results of operations and financial condition.

While the Energy Policy Act of 2005 imposes the RFS, it does not mandate the use of ethanol and eliminates the oxygenate requirement for reformulated gasoline in the Reformulated Gasoline Program included in the Clean Air Act.

The Reformulated Gasoline, or RFG, program's oxygenate requirements contained in the Clean Air Act, was completely eliminated on May 5, 2006 by the Energy Policy Act of 2005. While the RFA expects that ethanol should account for the largest share of renewable fuels produced and consumed under the RFS, the RFS is not limited to ethanol and also includes biodiesel and any other liquid fuel produced from biomass or biogas. The elimination of the oxygenate requirement for reformulated gasoline in the RFG program included in the Clean Air Act may result in a decline in ethanol consumption in favor of other alternative fuels, which in turn could have a material adverse effect on our results of operations and financial condition.

The elimination or alteration of the mandates for ethanol use contained in the Energy Independence and Security Act of 2007 could have a material adverse effect on our results of operations.

Under the Energy Independence and Security Act of 2007, use of renewable fuels, including ethanol, in the United States is mandated to increase from 9 million gallons in 2008 to 36 million gallons by 2022. The Act also mandates the use of 16 million gallons per year of cellulosic ethanol by 2022. Elimination or reduction of these mandated targets could adversely effect demand for ethanol and could have a material adverse effect on our results of operations and financial condition.

Changes in enacted federal, state or local legislation, or the enaction of new legislation, may adversely impact our business.

Federal, state and local legislators may enact legislation, or modify or amend currently enacted legislation, that could adversely affect the industries in which we currently operate. For example, several federal laws encourage the development of the ethanol and/or biofuels industry in the United States. If those laws are repealed or are not renewed, it could adversely impact the ethanol and/or biofuels industries as a whole, which would have an adverse effect on our financial results. In addition, legislation could be enacted that might not negatively impact our industry as a whole, but could negatively impact that portion of the industry in which we operate or our particular business. For example, in the future we may consider the effect of state or local incentives, such as grants or tax abatements, in formulating our internal projections and budgets and when choosing to where to locate and operate commercial-scale plants for the production of cellulosic ethanol. If those incentives should be repealed or no longer become available, the profitability of any commercial-scale plants which are reliant on such incentives could be negatively affected, which in turn would negatively affect our operating results.

Certain countries can export ethanol to the United States duty-free, which may undermine the ethanol production industry in the United States.

Imported ethanol is generally subject to a $0.54 per gallon tariff and a 2.5% ad valorem tax that was designed to offset the $0.51 per gallon ethanol subsidy available under the federal excise tax incentive program for refineries that blend ethanol in their fuel. There is a special exemption from the tariff for ethanol imported from certain countries in Central America and the Caribbean islands, which is limited to a total of 7.0% of United States production per year (with additional exemptions for ethanol produced from feedstock in the Caribbean region over the 7.0% limit). We do not know the extent to which the volume of imports would increase or the effect on United States prices for ethanol if the tariff is not renewed beyond its current expiration in December 2007. In addition The North America Free Trade Agreement countries, Canada and Mexico, are exempt from duty. Imports from the exempted countries have increased in recent years and are expected to increase further as a result of new plants under development. In particular, the ethanol industry has expressed concern with respect to a new plant under development by Cargill, Inc., one of the largest ethanol producers in the United States, in El Salvador that would take the water out of Brazilian ethanol and then ship the dehydrated ethanol from El Salvador to the United States duty-free. Since production costs for ethanol in Brazil are estimated to be significantly less than what they are in the United States, the import of the Brazilian ethanol duty-free through El

Salvador, or the import of ethanol duty-free from any country not exempted from the tariff, may negatively impact the demand for domestic ethanol and the price at which we sell our ethanol.

Our competitive position, financial position and results of operations may be adversely affected by technological advances.

Even if we are able to execute our business plan and develop commercial-scale cellulosic ethanol production plants and successfully license our proprietary technology, the development and implementation of new technologies may result in a significant reduction in the costs of ethanol production by others. For example, any technological advances by others in the efficiency or cost to produce ethanol from corn or other biomass could have an adverse effect on our competitiveness. We cannot predict when new technologies may become available, the rate of acceptance of new technologies by our competitors or the costs associated with new technologies. In addition, advances in the development of alternatives to ethanol could significantly reduce demand for or eliminate the need for ethanol. Any advances in technology which require significant capital expenditures to remain competitive or which reduce demand or prices for ethanol would have a material adverse effect on the results of our operations and financial position.

The termination or loss of our exclusive license from the University of Florida Research Foundation, Inc., would have a material adverse effect on our business.

We have an exclusive worldwide license to use, develop and commercially exploit the ethanol production patent estate of the University of Florida Research Foundation, Inc., or UFRFI, which consists of 16 United States patents, 6 pending United States patent applications, 57 foreign patents, 56 foreign patent applications and other related proprietary ethanol technology, and any extensions and improvements thereof for the production of ethanol, all of which is referred to herein as the UFRFI technology. The UFRFI license agreement expires on the later of October 2015 or the expiration of the last patent related to the UFRFI licensed technology. Based on the latest to expire of the current granted United States patents, the UFRFI license agreement will extend into 2022. Pending and future patent applications related to the UFRFI licensed technology, if granted, would extend the expiration date of the UFRFI license agreement beyond 2026. Loss of the rights to the UFRFI technology licensed to us, for example, due to our inability to comply with the terms and conditions or otherwise, of the UFRFI license agreement, would have a material adverse effect on our business.

Growth in the sale and distribution of ethanol is dependent on the changes to and expansion of related infrastructure which may not occur on a timely basis, if at all, and our contemplated operations could be adversely affected by infrastructure disruptions.

Substantial development of infrastructure will be required by persons and entities outside our control for our contemplated licensing and cellulosic ethanol production operations, and the ethanol industry generally, to grow. Areas requiring expansion include, but are not limited to:

- the automobile industry's of manufacture of flexible fuel vehicles;
- additional rail capacity affecting distribution of ethanol;
- additional storage facilities for ethanol;
- increases in truck fleets capable of transporting ethanol within localized markets;
- expansion of refining and blending facilities to handle ethanol; and
- growth in service stations equipped to handle ethanol fuels.

Substantial investments required for these infrastructure changes and expansions may not be made or they may not be made on a timely basis. Any delay or failure in making the changes to or expansion of infrastructure could hurt the demand for our proprietary technology or the production of cellulosic ethanol, impede our delivery

of cellulosic ethanol, impose additional costs on us, or otherwise have a material adverse effect on its results of operations or financial position. Our contemplated business will be dependent on the continuing availability of infrastructure and any infrastructure disruptions could have a material adverse effect on our business.

New ethanol plants under construction or decreases in the demand for ethanol may result in excess United States production capacity.

A number of our competitors are divisions of substantially larger enterprises and have substantially greater financial resources than we have. Smaller competitors also pose a threat. Farmer-owned cooperatives and independent firms consisting of groups of individual farmers and investors have been able to compete successfully in the ethanol industry. These smaller competitors operate smaller facilities which do not affect the local price of corn grown in proximity to the facility as much as larger facilities. In addition, many of these smaller competitors are farmer-owned and often require their farmer-owners to commit to selling them a certain amount of corn as a requirement of ownership. A significant portion of production capacity in the ethanol industry consists of smaller-sized facilities. In addition, institutional investors and high net worth individuals could heavily invest in ethanol production facilities and oversupply the demand for ethanol, resulting in lower ethanol price levels that might adversely affect the results of our contemplated cellulosic ethanol production operations and financial position.

Risks Specific to Our Specialty Enzymes Business

We are dependent on our collaborative partners, and our failure to successfully manage our existing and future collaboration relationships could prevent us from developing and commercializing many of our specialty enzyme products and achieving or sustaining profitability.

We currently have license agreements, strategic alliance agreements, collaboration agreements, supply agreements, and/or distribution agreements relating to our specialty enzymes business with Syngenta AG, BASF, Bayer Animal Health, Bunge Oils, Cargill Health and Food Technologies, DSM Pharma Chemicals, DuPont Bio-Based Materials, Givaudan Flavors Corporation, and Xoma. For the year ended December 31, 2007, approximately 27% of our revenue was from Syngenta. While we expect our product revenue to continue to account for a greater proportion of our total revenue, we expect that a significant portion of our 2008 revenue in our specialty enzymes business will be derived from our collaboration agreements. Since we do not currently possess the resources necessary to independently develop and commercialize all of the potential specialty enzyme products that may result from our technologies, we expect to continue to enter into, and in the near-term derive additional revenue from, strategic alliance and collaboration agreements to develop and commercialize specialty enzyme products. We will have limited or no control over the resources that any strategic partner or collaborator may devote to our partnered specialty enzyme products. Any of our present or future strategic partners or collaborators may fail to perform their obligations as expected. These strategic partners or collaborators may breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner. Further, our strategic partners or collaborators may not develop specialty enzyme products arising out of our collaborative arrangements or devote sufficient resources to the development, manufacture, marketing, or sale of these specialty enzyme products. If any of these events occur, or we fail to enter into or maintain strategic alliance or collaboration agreements, we may not be able to commercialize our specialty enzyme products, grow our specialty enzyme business, or generate sufficient revenue to support our operations. Our present or future strategic alliance and collaboration opportunities could be harmed if:

- We do not achieve our research and development objectives under our strategic alliance and collaboration agreements;
- We develop specialty enzyme products and processes or enter into additional strategic alliances or collaborations that conflict with the business objectives of our strategic partners or collaborators;
- We disagree with our strategic partners or collaborators as to rights to intellectual property we develop, or their research programs or commercialization activities;

- We are unable to manage multiple simultaneous strategic alliances or collaborations;
- Our strategic partners or collaborators become competitors of ours or enter into agreements with our competitors;
- Our strategic partners or collaborators become less willing to expend their resources on research and development due to general market conditions or other circumstances beyond our control;
- Consolidation in our target markets limits the number of potential strategic partners or collaborators; or
- We are unable to negotiate additional agreements having terms satisfactory to us.

We may not be able to realize any future benefits from the products and programs that we discontinued and/or de-emphasized in connection with the strategic reorganization that we announced in January 2006.

In January 2006, we announced a strategic reorganization designed to focus our resources on specialty enzymes programs and products that have the greatest opportunity for success. Accordingly, we elected to discontinue or to exit certain products and programs, many of which we had spent significant amounts of research funds on up to the point of their discontinuation and/or de-emphasis. We will attempt to sell and/or out-license to third parties some of these products and programs, including, but not limited to, our sordarins anti- fungal program. It is possible that we could be unsuccessful in our attempts to sell or out-license these products and/or programs. In the event that we are successful in selling or out-licensing any of these products and/or programs, the structure of such transactions may provide for only future compensation in the event that the third party is ultimately successful in development of the products and/or programs. Accordingly, it is possible that we may not receive any financial benefit from any sale or out license of these products and/or programs.

We do not own equipment with the capacity to manufacture products on a commercial scale. If we are unable to access the capacity to manufacture products in sufficient quantity, we may not be able to commercialize our products or generate significant sales.

We have only limited experience in enzyme manufacturing, and we do not have our own internal capacity to manufacture specialty enzyme products on a commercial scale. We expect to be dependent to a significant extent on third parties for commercial scale manufacturing of our specialty enzyme products. We have arrangements with third parties that have the required manufacturing equipment and available capacity to manufacture Fuelzyme-LF enzyme, Phyzyme XP, Bayovac SRS, Quantum phytase, Luminase PB-100 enzyme, Luminase PB-200 enzyme, Pyrolase 160 enzyme, Pyrolase 200 enzyme, and Cottonase enzyme. While we have our own pilot development facility, we continue to depend on third parties for large-scale commercial manufacturing. Additionally, one of our third party manufacturers is located in a foreign country, and is our sole-source supplier for most of our commercial enzyme products. Any difficulties or interruptions of service with our third party manufacturers or our own pilot manufacturing facility could disrupt our research and development efforts, delay our commercialization of specialty enzyme products, and harm our relationships with our specialty enzyme strategic partners, collaborators, or customers.

In addition, our supply agreement with Danisco for Phyzyme contains provisions which allow Danisco, with six months advance notice, to assume manufacturing rights of Phyzyme. If Danisco were to exercise this right, we would likely experience significant excess capacity at our third party manufacturing facility. If we were unable to absorb this excess capacity with other products in the event that Danisco assumed manufacturing rights of Phyzyme, our results of operations and financial condition would be adversely effected.

We have only limited experience in independently developing, manufacturing, marketing, selling, and distributing commercial specialty enzyme products.

We intend to pursue some specialty enzyme product opportunities independent of strategic partners and collaborators. We currently have only limited resources and capability to develop, manufacture, market, sell, or

distribute specialty enzyme products on a commercial scale. We will determine which specialty enzyme products to pursue independently based on various criteria, including: investment required, estimated time to market, regulatory hurdles, infrastructure requirements, and industry-specific expertise necessary for successful commercialization. At any time, we may modify our strategy and pursue collaborations for the development and commercialization of some specialty enzyme products that we had intended to pursue independently. We may pursue specialty enzyme products that ultimately require more resources than we anticipate or which may be technically unsuccessful. In order for us to commercialize more specialty enzyme products directly, we would need to establish or obtain through outsourcing arrangements additional capability to develop, manufacture, market, sell, and distribute such products. If we are unable to successfully commercialize specialty enzyme products resulting from our internal product development efforts, we will continue to incur losses in our specialty enzymes business, as well as in our business as a whole. Even if we successfully develop a commercial specialty enzyme product, we may not generate significant sales and achieve profitability in our specialty enzymes business, or in our business as a whole.

Risks Related to Owning Our Common Stock

We are subject to anti-takeover provisions in our certificate of incorporation, bylaws, and Delaware law and have adopted a shareholder rights plan that could delay or prevent an acquisition of our company, even if the acquisition would be beneficial to our stockholders.

Provisions of our certificate of incorporation, our bylaws and Delaware law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders. In addition, we adopted a share purchase rights plan that has anti-takeover effects. The rights under the plan will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board of directors. The rights should not interfere with any merger or other business combination approved by our board, since the rights may be amended to permit such an acquisition or may be redeemed by us. These provisions in our charter documents, under Delaware law, and in our rights plan could discourage potential takeover attempts and could adversely affect the market price of our common stock. Because of these provisions, our common stockholders might not be able to receive a premium on their investment.

We expect that our quarterly results of operations will fluctuate, and this fluctuation could cause our stock price to decline, causing investor losses.

Our quarterly operating results have fluctuated in the past and are likely to do so in the future. These fluctuations could cause our stock price to fluctuate significantly or decline. Revenue and expenses in future periods may be greater or less than in the immediately preceding period or in the comparable period of the prior year. Some of the factors that could cause our operating results to fluctuate include:

- termination of strategic alliances and collaborations;
- the success rate of our discovery efforts associated with milestones and royalties;
- the ability and willingness of strategic partners and collaborators to commercialize, market, and sell royalty-bearing products or processes on expected timelines;
- our ability to enter into new agreements with potential strategic partners and collaborators or to extend the terms of our existing strategic alliance agreements and collaborations, and the terms of any agreement of this type;
- Our need to continuously recruit and retain qualified personnel;
- our ability to successfully satisfy all pertinent regulatory requirements;
- our ability to successfully commercialize products or processes developed independently and the demand and prices for such products or processes;
- The cost and timing of completion and start-up of our demonstration facility;

- The extent, cost and timing of any new projects for the development of commercial-scale facilities;

- general and industry specific economic conditions, which may affect our, and our collaborative partners', research and development expenditures; and

- increased expenses related to the implementation of our vertical integration strategy within biofuels.

If revenue declines or does not grow as anticipated, we may not be able to correspondingly reduce our operating expenses, and our operating capital expenses could increase. A large portion of our expenses, including expenses for facilities, equipment and personnel, are relatively fixed. Failure to achieve anticipated levels of revenue could therefore significantly harm our operating results for a particular fiscal period.

Due to the possibility of fluctuations in our revenue and expenses, we believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance. Our operating results in some quarters may not meet the expectations of stock market analysts and investors. In that case, our stock price would probably decline.

Our stock price has been and may continue to be particularly volatile.

The market price of our common stock has in the past been and is likely to continue to be subject to significant fluctuations. Between January 1, 2006 and March 13, 2008, the closing market price of our common stock has ranged from a low of $2.35 to a high of $11.58. Since the completion of our merger with Celunol on June 20, 2007, the closing market price of our common stock has ranged from $2.35 to $6.83. The closing market price of our common stock on March 13, 2008 was $3.13. Some of the factors that may cause the market price of our common stock to fluctuate include:

- significant accidents, damage from severe weather or other natural disasters affecting our pilot facility;

- interruption or delay in the construction of our demonstration facility;

- risks and uncertainties related to siting, permitting, construction, materials and equipment procurement, and other issues related to development of commercial-scale facilities;

- any inability to obtain additional financing on favorable terms to fund our operations and pursue our business plan;

- reductions in the price of gasoline or increases in the prices for biomass feedstocks;

- the entry into, or termination of, key agreements, including key collaboration agreements and licensing agreements;

- future royalties from product sales, if any, by our collaborative partners;

- future royalties and fees for use of our proprietary processes, if any, by our licensees;

- the initiation of material developments in, or conclusion of litigation to enforce or defend any of our intellectual property rights or otherwise;

- general and industry-specific economic and regulatory conditions that may affect our ability to successfully develop and commercialize biofuels and cellulosic ethanol and other products;

- the loss of key employees;

- our ability to access genetic material from diverse ecological environments and practice our technologies;

- the introduction of technological innovations or alternative energy sources or other products by our competitors;

- decreases in the market for ethanol, and cellulosic ethanol;

- changes in estimates or recommendations by securities analysts, if any, who cover our common stock;
- future sales of our common stock or other capital-raising activities; and
- period-to-period fluctuations in our financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of our common stock.

In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm our profitability and reputation.

Concentration of ownership among our existing officers, directors and principal stockholders may prevent other stockholders from influencing significant corporate decisions and depress our stock price.

Our officers, directors, and stockholders with at least 5% of our stock together controlled approximately 62% of our outstanding common stock as of March 13, 2008. If these officers, directors, and principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. In addition, Syngenta and its affiliates controlled approximately 12.6% of our outstanding common stock, and by themselves will be able to exert a significant degree of influence over our management and affairs and over matters requiring stockholder approval. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, officers, directors, and principal stockholders, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of our company otherwise favored by our other stockholders. This concentration of ownership could depress our stock price.

Future sales of our stock by large stockholders could cause the price of our stock to decline.

A number of our stockholders hold significant amounts of our stock. For example, as of March 13, 2008, Syngenta, our largest stockholder, owned 7,963,593 shares of our common stock, or approximately 12.6% of our outstanding shares. All of our shares owned by Syngenta are eligible for sale in the public market subject to compliance with the applicable securities laws. We have agreed that, upon Syngenta's request, we will file one or more registration statements under the Securities Act in order to permit Syngenta to offer and sell shares of our common stock. Sales of a substantial number of shares of our stock by our large stockholders, including Syngenta, in the public market

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

Our executive offices are currently located in a 21,000 square foot building in Cambridge, Massachusetts leased through December 2013. Our research and development facilities are currently located in adjacent 75,000 and 61,000 square foot buildings in San Diego, California. The San Diego facilities are leased through November 2015 and March 2017, respectively. In connection with the corporate reorganization we announced on January 5, 2006, we consolidated our research and development facilities and in October 2007 we entered into a sublease agreement with a subtenant to occupy approximately 52,000 square feet of the 61,000 square-foot facility in San

Diego. The sublease agreement expires in February 2015. We believe that our facilities are suitable and adequate to meet our current requirements. We support both our biofuels and specialty enzymes segments out of our San Diego and Cambridge facilities.

We also own approximately 100 acres of land in Jennings, Louisiana, the site of our pilot plant and demonstration plant currently under construction, and associated administrative and training facilities, all which support our biofuels business segment. We believe that our combined pilot and demonstration plant facility will enable us to refine our production processes in advance of building, or partnering with others to build, commercial-scale cellulosic ethanol production facilities.

ITEM 3. LEGAL PROCEEDINGS.

Shareholder Class Action Litigation

In December 2002, we and certain of our officers and directors were named as defendants in a class action shareholder complaint filed in the United States District Court for the Southern District of New York, now captioned In re Diversa Corp. Initial Public Offering Sec. Litig., Case No. 02-CV-9699. In the amended complaint, the plaintiffs allege that we and certain of our officers and directors, and the underwriters (the "Underwriters") of our initial public offering, or IPO, violated Sections 11 and 15 of the Securities Act of 1933, as amended, based on allegations that our registration statement and prospectus prepared in connection with our IPO failed to disclose material facts regarding the compensation to be received by, and the stock allocation practices of, the Underwriters. The complaint also contains claims for violation of Sections 10(b) and 20 of the Securities Exchange Act of 1934, as amended, based on allegations that this omission constituted a deceit on investors. The plaintiffs seek unspecified monetary damages and other relief. This action is related to In re Initial Public Offering Sec. Litig., Case No. 21 MC 92, in which similar complaints were filed by plaintiffs (the "Plaintiffs") against hundreds of other public companies (collectively, the "Issuers") that conducted IPOs of their common stock in the late 1990s and 2000 (collectively, the "IPO Cases"). On January 7, 2003, the IPO Case against us was assigned to United States Judge Shira Scheindlin of the Southern District of New York, before whom the IPO Cases have been consolidated for pretrial purposes.

In February 2003, the Court issued a decision denying the motion to dismiss the Sections 11 and 15 claims against us and our officers and directors, and granting the motion to dismiss the Section 10(b) claim against us without leave to amend. The Court similarly dismissed the Sections 10(b) and 20 claims against two of our officers and directors without leave to amend, but denied the motion to dismiss these claims against one officer/director.

In June 2003, Issuers and Plaintiffs reached a tentative settlement agreement and entered into a memorandum of understanding providing for, among other things, a dismissal with prejudice and full release of the Issuers and their officers and directors from all further liability resulting from Plaintiffs' claims, and the assignment to Plaintiffs of certain potential claims that the Issuers may have against the Underwriters.

In June 2004, we executed a settlement agreement with the Plaintiffs pursuant to the terms of the memorandum of understanding. On February 15, 2005, the Court issued a decision certifying a class action for settlement purposes and granting preliminary approval of the settlement subject to modification of certain bar orders contemplated by the settlement. On August 31, 2005, the Court reaffirmed class certification and preliminary approval of the modified settlement in a comprehensive Order. On February 24, 2006, the Court dismissed litigation filed against certain underwriters in connection with the claims to be assigned to the Plaintiffs under the settlement. On April 24, 2006, the Court held a Final Fairness Hearing to determine whether to grant final approval of the settlement. On December 5, 2006, the Second Circuit Court of Appeals vacated the lower Court's earlier decision certifying as class actions the six IPO Cases designated as "focus cases." Thereafter, the District Court ordered a stay of all proceedings in all of the IPO Cases pending the outcome of plaintiffs' petition to the Second Circuit for rehearing en banc and resolution of the class certification issue. On April 6, 2007, the Second Circuit denied Plaintiffs' rehearing petition, but clarified that the Plaintiffs may seek to

certify a more limited class in the District Court. Accordingly, the settlement as originally negotiated will not be finally approved. On or about August 14, 2007, Plaintiffs filed amended complaints in the six focus cases, and thereafter moved for certification of the classes and appointment of lead plaintiffs and lead counsel in those cases. Issuers in the six focus case issuers filed motions to dismiss the claims against them in November 2007 and an opposition to plaintiffs' motion for class certification in December 2007. Both motions are pending.

Valley Research, inc. Litigation

On September 22, 2006, we issued a letter to Valley Research, inc., or Valley, communicating our intent to terminate Valley's exclusive distributorship of one of our enzymes because Valley failed to meet certain minimum sales requirements under our distribution agreement with Valley. On December 7, 2006, Valley filed a civil complaint in San Diego Superior Court against us, alleging breach of contract. In the complaint, Valley alleges that our enzyme product was unstable and performed poorly, which caused Valley to be unable to satisfy certain contractual requirements. In the complaint, Valley seeks money damages for our alleged breach of contract, and potentially additional damages for termination of Valley's exclusivity. We believe that the claims made by Valley have no merit, and we intend to defend ourselves vigorously. We filed an answer and cross complaint in January 2007 responding to the charges and asserting certain other claims against Valley. On March 7, 2007, we issued a letter to Valley terminating the distribution agreement, effective immediately, because Valley failed to meet certain minimum purchase requirements under the distribution agreement. On July 10, 2007, Valley filed a First Amended Complaint alleging various claims, including breach of contract, fraud, intentional and negligent interference with contract, and trade secret misappropriation. On July 18, 2007, we filed a First Amended Cross-Complaint identifying Verenium Corporation as the successor in interest to Diversa Corporation, and on July 19, 2007, we removed Valley's lawsuit to the United States District Court for the Southern District of California based on diversity jurisdiction. The federal court granted Valley's motion to remand back to the state court on December 17, 2007. On January 31, 2008, we challenged the First Amended Complaint by way of demurrer, which will be heard on March 21, 2008. On February 15, 2008, the parties attended a case management conference where the Superior Court judge set a trial date of January 17, 2009.

Maxygen Patent Interference Proceeding

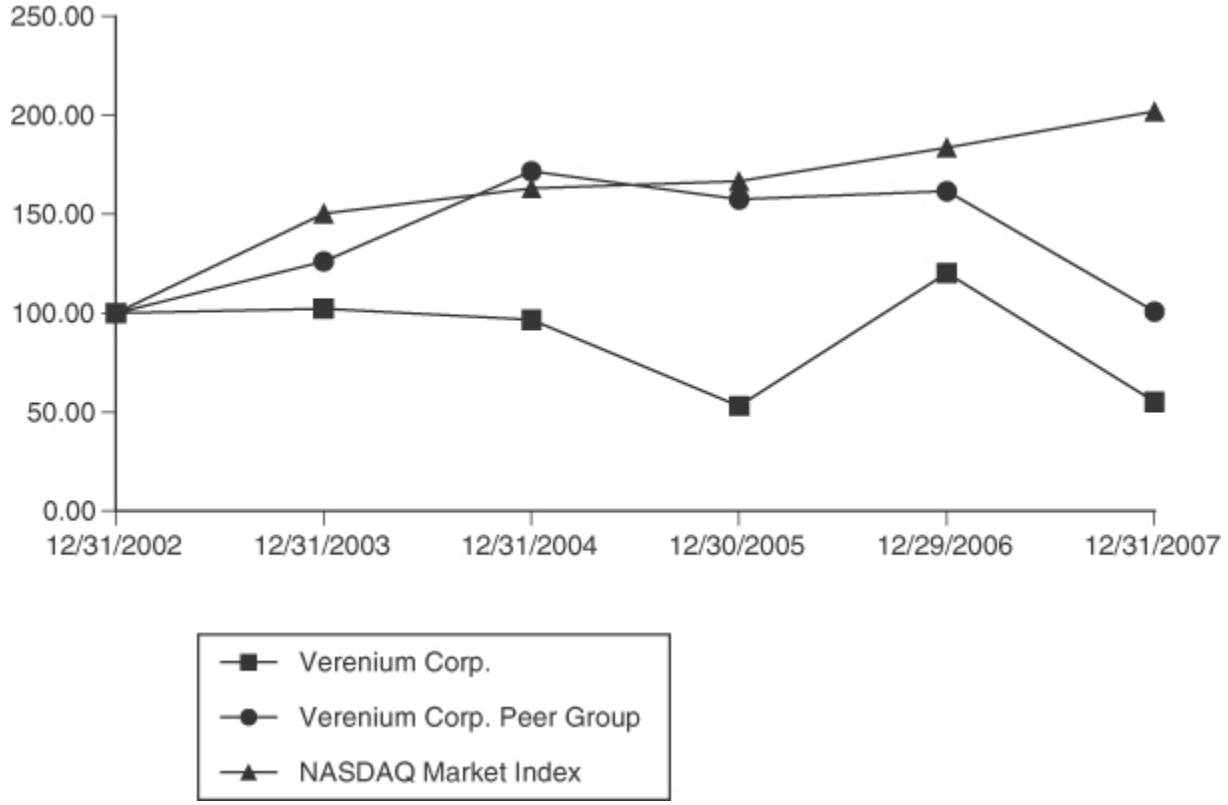
In February 2007, an interference proceeding was declared in the U.S. Patent and Trademark Office between a U.S. patent assigned to us and a pending U.S. patent application owned by Maxygen, with allowable claims directed to our GeneReassembly technology. On February 25, 2008 the Board of Patent Appeals and Interferences ruled in favor of Maxygen and the claims in our issued patent were cancelled. We are evaluating this ruling to determine whether an appeal might be appropriate. We do not believe that the cancellation of our claims will have a material adverse effect on our business.

We are also, from time to time, subject to legal proceedings and claims which arise in the normal course of business. In our opinion, the amount of ultimate liability with respect to these actions will not have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

No matters were submitted to a vote of security holders during the quarter ended December 31, 2007.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.



	Fiscal Year Ending					
Company/Index/Market	12/31/2002	12/31/2003	12/31/2004	12/30/2005	12/29/2006	12/31/2007
Verenium Corp.	100.00	102.21	96.57	53.04	120.22	55.14
Verenium Corp. Peer Group	100.00	126.04	171.61	157.39	161.52	100.70
NASDAQ Market Index	100.00	150.36	163.00	166.58	183.68	201.91

(a) On June 20, 2007, we completed our merger with Celunol Corp., a private company. Upon completion of the merger we renamed the company Verenium Corporation. In connection with the corporate name change, we also changed our Nasdaq Global Market ticker symbol from "DVSA" to "VRNM" and began trading under the new ticker symbol effective June 21, 2007. The following table sets forth the high and low sale prices for our common stock for the periods indicated, as reported on the Nasdaq Global Market. Such quotations represent inter-dealer prices without retail markup, markdown, or commission and may not necessarily represent actual transactions.

	High	Low
2007		
First Quarter	$ 11.05	$ 6.36
Second Quarter	8.20	4.23
Third Quarter	6.83	4.70
Fourth Quarter	5.81	3.36

	High	Low
2006		
First Quarter	$ 9.20	$ 4.76
Second Quarter	11.84	8.40
Third Quarter	10.50	6.44
Fourth Quarter	11.98	7.53

As of March 13, 2008, there were approximately 208 holders of record of our common stock. We have never declared or paid any cash dividends on our capital stock. On March 13, 2008, the last sale price reported on the Nasdaq Global Market for our common stock was $3.13 per share. We currently intend to retain future earnings, if any, for development of our business and, therefore, do not anticipate that we will declare or pay cash dividends on our capital stock in the foreseeable future.

ITEM 6. SELECTED FINANCIAL DATA.

The selected consolidated financial data set forth below with respect to our consolidated statements of operations for the years ended December 31, 2007, 2006, and 2005, and with respect to our balance sheets at December 31, 2007 and 2006 are derived from our audited consolidated financial statements, which are included elsewhere in this report, and are qualified by reference to such consolidated financial statements. The consolidated statement of operations data for the years ended December 31, 2004 and 2003 and the balance sheet data as of December 31, 2005, 2004, and 2003 are derived from our audited consolidated financial statements that are not included in this report. The selected consolidated financial data set forth below includes Celunol Corp. for the period from and including June 21, 2007 through December 31, 2007.

The selected financial information set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes appearing elsewhere in this annual report on Form 10-K.

	Year Ended December 31,				
	2007	2006	2005	2004	2003
	(in thousands, except per share data)				
Statement of Operations Data:					
Collaborative revenue	$ 17,581	$ 30,014	$ 34,392	$ 41,897	$ 41,980
Grant revenue	2,717	3,317	10,079	10,241	3,923
Product revenue	25,975	15,867	9,832	5,412	3,056
Total revenue	46,273	49,198	54,303	57,550	48,959
Operating expenses:					
Cost of product revenue	19,815	12,914	10,662	3,698	2,997
Research and development	57,727	50,033	72,751	73,405	70,695
Selling, general and administrative	30,585	14,800	12,990	11,607	12,274
Acquired in-process research and development	42,400	—	—	—	19,478
Amortization of acquired intangible assets	—	—	2,602	2,598	2,290
Restructuring charges	1,481	12,026	—	—	—
Asset impairment charges	—	—	45,745	—	—
Total operating expenses	152,008	89,773	144,750	91,308	107,734
Loss from operations	(105,735)	(40,575)	(90,447)	(33,758)	(58,775)
Interest and other income (expense), net	(1,850)	1,304	729	333	1,079
Net loss	(107,585)	(39,271)	(89,718)	(33,425)	(57,696)
Net loss per share, basic and diluted	$ (1.97)	$ (0.85)	$ (2.04)	$ (0.77)	$ (1.39)
Weighted average shares outstanding	54,607	46,474	44,064	43,416	41,592

	As of December 31,				
	2007	2006	2005	2004	2003
			(in thousands)		
Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$ 57,977	$ 51,912	$ 65,428	$ 98,193	$127,483
Working capital	35,344	40,440	53,753	82,931	104,609
Total assets	264,779	79,905	98,069	184,056	221,323
Long-term debt, less current portion	121,160	3,724	6,332	8,825	10,131
Stockholders' equity	95,215	42,916	64,804	150,946	181,443

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and the notes to those statements included elsewhere in this report. The results of operations discussed herein include the operating results of Celunol Corp. for the period from and including June 21, 2007 through December 31, 2007.

Except for the historical information contained herein, the following discussion contains forward-looking statements that involve risks and uncertainties. These statements speak only as of the date on which they are made, and we undertake no obligation to update any forward-looking statement.

Forward looking statements applicable to our business generally include statements related to:

- our ongoing integration of the Celunol business and the benefits to be derived from the merger;
- the potential technological, strategic and commercial advantages and benefits created by the merger with Celunol;
- the potential value for our stockholders created by the merger with Celunol;
- our estimates regarding market sizes and opportunities, as well as our future revenue, product-related revenue, profitability and capital requirements,
- our anticipated use of proceeds from our recent financing activities;
- the length of time that we will be able to fund our operations with existing cash;
- our expected cash needs and our ability to access future financing;
- our ability to continue as a going concern through 2008;
- our expected future research and development expenses, sales and marketing expenses, and selling, general and administrative expenses;
- the effect on our business and financial results of governmental regulation and programs;
- our plans regarding future research, product development, business development, commercialization, growth, independent project development, collaboration, licensing, intellectual property, regulatory and financing activities;
- our results of operations, financial condition and businesses, and products and product candidates under development;
- investments in our core technologies and in our internal product candidates;
- the opportunities in our target markets and our ability to exploit them;
- our plans for managing the growth of our business;
- the benefits to be derived from our current and future strategic alliances;
- our anticipated revenues from collaborative agreements; grants and licenses granted to third parties;
- the benefits to be derived from our strategic reorganization in 2006;
- our ability to repay our outstanding debt;
- our exposure to market risk;
- the impact of outstanding litigation matters on our operations and financial results;
- the effect of critical accounting policies on our financial results;

Forward looking statements applicable to our biofuels business include statements related to:

- potential growth in the use of ethanol, including cellulosic ethanol, the economic prospects for the ethanol industry and cellulosic ethanol and the advantages of cellulosic ethanol versus ethanol and other fuel sources;
- the development and construction of our demonstration-scale facility and the continued development of our pilot facility;
- the financing, development and construction of commercial-scale cellulosic ethanol facilities;
- our ability to use multiple feedstocks to produce cellulosic ethanol;

Forward looking statements applicable to our specialty enzymes business include statements related to:

- our ability to increase our product revenue and improve product gross margins;
- our ability to maintain good relationships with the companies with whom we contract for the manufacture of certain of the products in our specialty enzymes business; and
- our plans for our discontinued programs and products, including our pharmaceutical programs.

Factors that could cause or contribute to differences include, but are not limited to, risks involved with our new and uncertain technologies, risks associated with our dependence on patents and proprietary rights, risks associated with our protection and enforcement of our patents and proprietary rights, our dependence on existing collaborations, our ability to enter into and/or maintain collaboration and joint venture agreements, our ability to commercialize products directly and through our collaborators, the timing of anticipated regulatory approvals and product launches, our ability to successfully integrate the operations of Diversa and Celunol, and the development or availability of competitive products or technologies, as well as other risks and uncertainties set forth below and in the section of this report entitled “Risk Factors.”

Overview

We operate in two business segments, biofuels and specialty enzymes. Our biofuels business segment operates through our wholly-owned subsidiary, Verenium Biofuels Corporation, and is focused on developing unique technical and operational capabilities designed to enable the production and commercialization of biofuels, in particular ethanol produced from cellulosic biomass. We believe the most significant near-term commercial opportunity for our biofuels business segment is the large-scale commercial production of cellulosic ethanol derived from multiple biomass feedstocks. Our specialty enzymes segment develops customized enzymes for use within the alternative fuels, specialty industrial processes, and health and nutrition markets to enable higher throughput, lower costs, and improved environmental outcomes. We believe the most significant near-term commercial opportunity for our specialty enzymes business segment will be derived from continued sales growth, and related profit margin improvement, from our existing portfolio of enzyme products.

Our biofuels and specialty enzymes business are both supported by a research and development team with expertise in gene discovery and optimization, cell engineering, bioprocess development, biochemistry and microbiology. Over the past 15 years, our research and development team has developed a proprietary technology platform which has enabled us to apply advancements in science to discovering and developing unique solutions in complex industrial or commercial applications. To date, we have dedicated substantial resources to the development of our proprietary technologies, which include capabilities for sample collection from the world’s microbial populations, generation of DNA libraries, screening of these libraries using ultra high-throughput methods capable of analyzing more than one billion genes per day, and optimization based on our gene evolution technologies. We have continued to shift more of our resources from technology development to commercialization efforts for our existing and future products. While our technologies have the potential to serve many large markets, our key areas of focus for internal product development are (i) integrated solutions for the production of cellulosic biofuels, such as cellulosic ethanol, and (ii) specialty enzymes for: biofuels, specialty industrial processes, and health and nutrition. We have current collaborations with market leaders, such as BASF,

Bunge Oils, Cargill Health and Food Technologies, and Syngenta AG, each of which complement our internal product development efforts.

We expect to continue to invest heavily in these commercialization efforts, and to expand our investment in technology and enzyme development, primarily in the area of biofuels. We believe this investment will not only benefit our efforts to advance the commercialization of cellulosic ethanol within our biofuels business unit, but will also enable us to create additional enzyme commercialization opportunities within our specialty enzymes unit that are focused more broadly on the biofuels industry.

We have a substantial intellectual property estate comprising more than 300 issued patents and more than 400 pending patents as of February 2008. We believe that this intellectual property estate creates leverage which allows us to enhance and improve our technology development and commercialization efforts across both business units while maintaining protection on key intellectual property assets.

For the year ended December 31, 2007, total revenues decreased 6% compared to the year ended December 31, 2006, while product-related revenue increased 64% over the same period. As part of our strategic reorganization in January 2006, we began to de-emphasize grant revenue and certain collaborations that are not strategic to our current market focus in favor of greater emphasis on sales of products. As a result, we expect that product revenue will continue to represent a larger percentage of our total revenues in the future, and that collaborative revenue will continue to decrease. However, certain of our partners and funding sources have ongoing obligations to fund our programs, and we have ongoing obligations to provide research and development services under our current agreements. As of December 31, 2007, our strategic partners have provided us with more than $300 million in funding since inception and are committed to additional funding of more than $14 million through 2012, subject to our performance under existing agreements, excluding milestone payments, license and commercialization fees, and royalties or profit sharing. Our strategic partners often pay us before we recognize the revenue, and these payments are deferred until earned. As of December 31, 2007, we had deferred revenue totaling $5.5 million, of which $5.1 million was related to funding from collaborative partners, and $0.4 million was related to product sales.

We have incurred net losses since our inception. As of December 31, 2007 our accumulated deficit was $437.1 million. Our results of operations have fluctuated from period to period and likely will continue to fluctuate substantially in the future. We expect to incur losses into the foreseeable future as a result of:

- anticipated additional investments to implement our biofuels commercialization strategy, including capital expenditures related to enhancements of our cellulosic ethanol pilot facility and construction of our demonstration facility;
- our continued investment in sales and marketing infrastructure intended to strengthen our customer contact and focus;
- our continued investment in manufacturing facilities necessary to meet anticipated increased demand for our products; and
- continued research and development expenses for our internal product candidates.

Results of operations for any period may be unrelated to results of operations for any other period. In addition, we believe that our historical results are not a good indicator of our future operating results.

As more fully described in the *Risk Factors* beginning on page 35, *Liquidity and Capital Resources* beginning on page 87 and *Note 1 of the Notes to Consolidated Financial Statements* beginning on page 104 of this annual report on Form 10-K, our independent registered public accounting firm has included an explanatory paragraph in its report on our 2007 financial statements related to the uncertainty in our ability to continue as a going concern. While we believe that we will be successful in generating additional cash through a combination of corporate partnerships and collaborations, federal and state grant funding, and incremental product sales, if we are unsuccessful in raising additional capital from any of these sources, we may need to defer, reduce or eliminate certain planned expenditures, restructure or significantly curtail our operations, file for bankruptcy or cease operations.

Recent Strategic Events, Financing Transactions, and Capital Requirements

Completion of Merger Transaction and Creation of Verenium Corporation

In June 2007, we completed our merger with Celunol Corp., with Celunol continuing as a surviving corporation and a wholly-owned subsidiary of Diversa. Following the merger, Diversa was renamed Verenium Corporation and Celunol was renamed Verenium Biofuels Corporation.

In connection with the merger, we issued 14.1 million shares of our common in exchange for all outstanding capital stock of Celunol, and issued 0.9 million options and warrants to purchase our common stock in exchange for Celunol options and warrants that we assumed. As a result of and immediately following the merger, former Celunol security holders owned approximately 24% of the Company, while former Diversa shareholders owned approximately 76%. Immediately following the merger, we had approximately 63 million shares outstanding.

We currently conduct our research activities at our centralized research and development facility in San Diego, as well as at our pilot plant in Jennings, Louisiana. We have successfully conducted laboratory tests on a wide range of feedstocks to produce ethanol from agricultural residues, including agricultural wastes such as sugar cane bagasse, corn fiber, sugar beet pulp, citrus pulp and citrus peels; wood wastes, such as saw and pulp mill waste; forestry wastes, such as hardwood and softwood thinnings; rice hulls, rice straw, and corn stover; and urban wastes, such as the paper portion of municipal solid waste and municipal green wastes. We believe our success in laboratory testing of a wide range of feedstocks will provide us the flexibility to utilize an array of feedstocks in our production process. Due to this feedstock flexibility, we believe we will be able to locate facilities in a variety of different geographic markets and, in many cases, closer to end-use markets.

In 2007, we completed a significant upgrade of our cellulosic ethanol pilot plant in Jennings, Louisiana. We believe that this pilot plant is among the nation's first pilot-scale cellulosic ethanol plants, and represents a key asset of our on-going research and development program, providing us with the opportunity to refine production processes and validate our technology. We have been constructing a 1.4 million gallons-per-year demonstration plant on the same site, and currently expect this plant to be mechanically complete by the end of March 2008, after which the facility will go through an extensive start-up, commissioning and optimization phase throughout the balance of 2008. We believe that this facility represents one of the first demonstration-scale cellulosic ethanol facilities in the United States. Further, we believe our combined pilot and demonstration plant facilities will enable us to refine our production processes in advance of building, or partnering with others to build, commercial-scale cellulosic ethanol production facilities. Both the pilot plant and the demonstration plant are located at a site we own in Jennings, Louisiana.

Research Collaboration with Syngenta AG

In January 2007, we announced a new 10-year research and development partnership with Syngenta AG, or Syngenta, focused on the discovery and development of a range of novel enzymes to economically convert pre-treated cellulosic biomass to mixed sugars—a critical step in the process of biofuel production. The new agreement replaced our prior agreement with Syngenta.

Our prior collaboration agreement with Syngenta was a broad research and product development collaboration in which the two companies worked on various exclusive projects together across various fields. The prior agreement provided for a minimum of $118 million of research funding over a seven-year research period beginning in 2003, of which approximately $83 million was received through its termination in 2006. The prior agreement led to product candidates for the production of biofuels such as ethanol from corn, and enzymes to improve the digestibility and reduce the environmental impact of phosphorus and other nutrients naturally contained in animal feed. However, the prior agreement covered significantly more exclusive fields and applications than were ultimately being taken to the marketplace.

We believe that the new agreement is more focused and better aligned with each company's core strengths. Under the terms of the new agreement, Syngenta has committed a minimum of $16 million in the first two years

of the 10-year term to fund joint research and development activities, largely in defined areas of biofuels. In addition, we will be entitled to development- and commercialization-related milestone payments upon achievement of specified milestones, as well as royalties on any products that are commercialized by Syngenta. The new agreement allows us the freedom to operate independently in all fields, and to market and sell fermentation-based enzyme products developed either under the collaboration or by us independently. Syngenta retains the rights to market and sell plant-expressed, or transgenic, enzyme products developed under the collaboration in the fields of animal feed and biofuels. We have also licensed its existing collection of enzymes for plant expression to Syngenta within these two fields.

As a result of the restructuring of our Syngenta agreement, our minimum guaranteed collaborative funding was reduced by approximately $19.0 million, with approximately $12.0 million of this reduction occurring in 2007.

Financing Transactions

Completion of 2007 Convertible Notes Offering

In late March 2007 and early April 2007, we completed an offering of $120 million aggregate principal amount of 5.5% Convertible Senior Notes due 2027, or the Notes, in a private placement, generating net cash proceeds to the Company of approximately $114.7 million. The Notes have been registered under the Securities Act of 1933, as amended, to permit registered resale of the Notes and of our common stock issuable upon conversion of the Notes.

The Notes bear interest at 5.5% per year, payable in cash semi-annually, and are convertible at the option of the holders at any time prior to maturity, redemption or repurchase into shares of Verenium common stock at an initial conversion rate of 122.5490 shares per $1,000 principal amount of Notes (subject to adjustment in certain circumstances), which represents an initial conversion price of $8.16 per share. The conversion rate of the Notes may be increased if the average price of the Company's common stock for a period ending on April 1, 2008 is less than $6.40 or in certain circumstances if a holder surrenders Notes for conversion in connection with a make-whole fundamental change that occurs before April 5, 2012.

On or after April 5, 2012, the Company may, at its option, redeem the Notes, in whole or in part, for cash at a redemption price equal to 100% of the principal amount of the Notes to be redeemed plus any accrued and unpaid interest to the redemption date. On each of April 1, 2012, April 1, 2017 and April 1, 2022, holders may require the Company to purchase all or a portion of their Notes at a purchase price in cash equal to 100% of the principal amount of the notes to be purchased plus any accrued and unpaid interest to the purchase date. Holders may also require the Company to repurchase all or a portion of their Notes upon a fundamental change at a repurchase price in cash equal to 100% of the principal amount of the Notes to be repurchased plus any accrued and unpaid interest to the repurchase date. Pursuant to the terms of the Notes, a "fundamental change" is broadly defined as 1) a change in control, or 2) a termination of trading of our common stock.

We have used the net proceeds of this offering for continued expansion of our biofuels business, including ongoing construction of a demonstration-scale ethanol facility, continued investment in product development and commercialization efforts in our specialty enzyme business, and for general corporate purposes, including working capital.

As described below, in connection with our recent private placement of new convertible notes, we entered into exchange agreements with certain noteholders, representing $18.5 million in aggregate principal of the existing 5.5% convertible senior notes.

Completion of 2008 Convertible Notes Offering

On February 22, 2008, we completed a private placement of 8% Senior Convertible Notes due April 1, 2012, or the New Notes, and warrants to purchase our common stock. Concurrent with entering into the purchase

agreement, we also entered into senior notes exchange agreements with certain existing holders of our 5.5% Notes pursuant to which such noteholders exchanged approximately $18.5 million in aggregate principal amount of the 5.5% Notes for approximately $16.7 million in aggregate principal amount of the New Notes and for warrants to purchase common stock. Including the New Notes to be issued in exchange for the 5.5% Notes, we issued $71 million in aggregate principal amount of the New Notes and warrants to purchase approximately 8 million shares of our common stock. Gross proceeds from new investment were approximately $54 million and net proceeds from new investment, after giving effect to payment of certain transaction-related expenses and the cash cost of the convertible hedge transaction described below, were approximately $45 million.

The New Notes will be convertible on the date of their issuance. Their initial conversion price will be equal to $4.09 per share. The conversion price will be subject to full ratchet anti-dilution protection and a reset provision whereby, to the extent the volume weighted average price of our common stock during the seven trading days prior to the one-year anniversary of the issuance of the New Notes is less than $3.55 per share, the conversion price will reset to the greater of $2.13 per share or 115% of the volume weighted average price of the common stock at that time. In addition, subject to the satisfaction of certain conditions, including that an effective resale registration statement for the applicable shares be on file, interest payments on the New Notes may be made, at our option, in shares of common stock, valued at a 5% discount to the stock price at the time of payment of the interest. In the event that we do not receive shareholder approval for issuances of shares beyond 19.9% of the number of our issued and outstanding shares as of February 22, 2008, any required share issuances under the New Notes in excess of that amount will be settled for cash in an amount per share equal to the closing sales price of our common stock on the conversion date. The New Notes are subject to automatic conversion at our option if our closing stock price exceeds $8.18 per share over a 30-trading day period ending prior to the date we provide notice of the automatic conversion to investors, the average daily trading volume of our stock over that 30-trading day period equals or exceeds $3 million, and certain other conditions are met.

The warrants are exercisable six months after their issuance. The initial exercise price of the warrants will be $4.44 per share. The exercise price will be subject to weighted average anti-dilution protection. We are not permitted to issue shares of our common stock upon exercise of the warrants unless and until we receive shareholder approval for such issuances. If such shareholder approval is obtained, the warrants, beginning six months after their issuance, will be exercisable for shares of our common stock. If such shareholder approval is not obtained, the warrants will never be exercisable for shares of common stock and will only be settled for cash on exercise in an amount per share issuable equal to the closing sales price of our common stock on the exercise date less the applicable warrant exercise price.

In connection with the transactions described above, we entered into a convertible hedge transaction with a counterparty, which is intended to reduce the potential dilution upon conversion of the New Notes. The convertible hedge transaction is composed of two separate call options. Under the first call option, on April 1, 2012 (or earlier upon conversion of the New Notes), we will be entitled to purchase 13,288,509 shares of our common stock from the counterparty at a price per share equal to the initial conversion price (or a proportion of such number of shares based on the proportion of the 8% senior convertible notes being converted). Under the second call option, on three exercise dates staggered in six month intervals beginning on October 1, 2013, the counterparty will be entitled to purchase an aggregate of 13,288,509 shares of our common stock at a price per share of $5.16. The cash cost of the convertible hedge transaction was approximately $6.2 million.

We intend to use the net proceeds from the sale of the New Notes and warrants for general corporate and working capital purposes, including the completion of construction, commissioning and start-up of our cellulosic ethanol demonstration facility.

Years Ended December 31, 2007 and 2006

Selected Segment Financial Data

As a result of our merger with Celunol on June 20, 2007, our business now consists of two business units, which we refer to as our biofuels segment and our specialty enzymes segment. The biofuels segment is focused on developing unique technical and operational capabilities designed to enable the production and commercialization of biofuels, in particular ethanol from cellulosic biomass. The specialty enzymes segment develops high performance enzymes for use within the alternative fuels, specialty industrial processes, and animal nutrition and health markets to enable higher throughput, lower costs, and improved environmental outcomes.

We assess performance and allocate resources based on discrete financial information for the biofuels and specialty enzymes segments. For the biofuels segment, performance is assessed based on total operating expenses and capital expenditures. For the specialty enzymes segment performance is assessed based on total revenues, product revenues, product gross profit, total operating expenses and capital expenditures. For the year ended December 31, 2007, the specialty enzyme segment comprised 100% of our total revenues, product revenue, and cost of product revenue. Our operating expenses for each segment include direct and allocated research and development and selling, general and administrative expenses. In management's evaluation of performance, certain corporate operating expenses are excluded from the business segments such as: non-cash share-based compensation, restructuring charges, severance, depreciation and amortization, write-off of acquired in-process research and development, and other corporate expenses, which are not allocated to either business segment. In addition, we evaluate segment performance based upon capital expenditures and other assets that are specifically identified to the business segment, excluding certain corporate assets such as goodwill and other assets that can be attributed to, or utilized by, both business segments. Expenses and assets shared by the segments require the use of judgments and estimates in determining the allocation of expenses to the two segments. Different assumptions or allocation methods could result in materially different results by segment.

Selected operating results for the year ended December 31, 2007 and identifiable assets as of December 31, 2007 for each of our business segments is set forth below (in thousands):

	Year Ended December 31, 2007			
	Biofuels	Specialty Enzymes	Corporate	Total
Collaborative and grant revenue	$ —	$ 20,298	$ —	$ 20,298
Product revenue	—	25,975	—	25,975
Total revenues	$ —	$ 46,273	$ —	$ 46,273
Product gross profit	$ —	$ 6,160	$ —	$ 6,160
Acquired in-process research and development	$ —	$ —	$ 42,400	$ 42,400
Operating expenses, excluding cost of product revenue and acquired in-process research and development	$ 20,499	$ 53,480	$ 15,814	$ 89,793
Loss from operations	$ (20,499)	$ (27,022)	$ (58,214)	$ (105,735)
Capital expenditures	$ 35,862	$ 2,636	$ 4,603	$ 43,101

Identifiable assets by operating segment are set forth below:

	As of December 31, 2007			
	Biofuels	Specialty Enzymes	Corporate	Total
Total identifiable assets	$ 67,599	$ 23,626	$ 173,554	$ 264,779

Since we only began operating in two business segments during 2007, there is no separate segment financial information available prior to 2007 for comparative purposes.

Consolidated Results of Operations

Revenues

	2007	2006	% Change
Revenues:			
Phyzyme phytase	$ 16,237	$ 8,869	83%
All other products	9,738	6,998	39%
Total product	25,975	15,867	64%
Collaborative	17,581	30,014	(41)%
Grant	2,717	3,317	(18)%
Total Revenues	$ 46,273	$ 49,198	(6)%

Revenues decreased 6%, or $2.9 million, to $46.3 million for the year ended December 31, 2007 from $49.2 million for the year ended December 31, 2006, attributed primarily to a decrease in collaborative and grant revenue, offset in large part by an increase in product revenues. Our revenue mix has shifted to a larger percentage of product revenue, consistent with our strategy to grow product sales and de-emphasize collaborations that are not core to our strategic market focus. Product revenue represented 56% of total revenues for the year ended December 31, 2007, as compared to 32% for the year ended December 31, 2006.

Product revenues for the year ended December 31, 2007 increased $10.1 million, or 64%, to $26.0 million from $15.9 million for the year ended December 31, 2006. This increase was attributable primarily to increased revenue and profit sharing associated with Phyzyme XP phytase sold through our collaboration with Danisco. Phyzyme revenue has been positively impacted during 2007 primarily related to the following factors:

- In late 2006, the EU Commission granted permanent authorization for the use of Phyzyme XP in broiler poultry feed in Europe which has expanded the end user market for Phyzyme XP;

- In late 2006, Danisco introduced a dry pelletized, thermally-stable formulation of Phyzyme XP; and

- Beginning in late 2007, due to an increase in the cost of phosphates (an animal feed additive), sales volumes of Phyzyme XP to Danisco's current customers have been positively impacted, as many of these customers have increased Phyzyme dosages as a replacement for higher-cost phosphates.

The increase in product revenue is also attributed to an increase in sales of our other commercial enzyme products, including Quantum Phytase and Fuelzyme-LF. While we anticipate an increase in revenue from our non-Phyzyme products, we expect that Phyzyme will continue to represent a significant percentage of our total product revenue in the foreseeable future.

Collaborative revenue decreased 41%, or $12.4 million, to $17.6 million from $30.0 million and accounted for 38% and 61% of total revenue for the years ended December 31, 2007 and 2006. This decrease is primarily a result of the restructuring of our collaboration with Syngenta at the beginning of 2007. We have continued to de-emphasize collaborations that are not core to our current focus in favor of greater emphasis on sales of products. We anticipate that collaborative revenue will continue to decrease in 2008 as compared to 2007, due in large part to this de-emphasis of non-strategic collaborations, but also due to a decrease in revenue related to the expected wind-down of projects with existing strategic collaborators such as Syngenta, Bunge, and BASF. We will continue to pursue opportunities to expand, renew, or enter into new collaborations that we believe fit our strategic focus and represent product commercialization opportunities in the future; however, there can be no assurance that we will be successful in renewing or expanding existing collaborations, or securing new collaboration partners.

Grant revenue decreased 18%, or $0.6 million, to $2.7 million for the year ended December 31, 2007 as compared to $3.3 million for the year ended December 31, 2006. Since late 2005, we have continued to de-emphasis grants and government contracts that are not core to our strategic focus. We do not expect our grant revenue to return to the levels we achieved in 2005 and 2004; however, we may elect to pursue additional opportunities in the foreseeable future to secure federal, state or local agency funding to support our biofuels initiatives. For example, in early 2007 and 2008 we were awarded two grants to be funded by the Department of Energy to discover and develop new enzymes and enzyme cocktails to break down various types of biomass.

Our revenues have historically fluctuated from period to period and likely will continue to fluctuate substantially in the future based upon the adoption rates of our new and existing commercial products, timing and composition of funding under existing and future collaboration agreements, as well as regulatory approval timelines for new products. We anticipate that our revenue mix will continue to shift toward a higher percentage of product-related revenue.

Product Gross Profit & Gross Margin

	2007	2006	% Change
Product revenue	$ 25,975	$ 15,867	64%
Cost of product revenue	19,815	12,914	53%
Product gross profit	6,160	2,953	109%
Product gross margin	24%	19%	

Product gross profit margin (product revenue less cost of product revenue) totaled $6.2 million, or 24% of product revenue, for the fiscal year ended December 31, 2007 compared to $3.0 million, or 19% of product revenue, for the fiscal year ended December 31, 2006. This gross margin improvement is reflective of higher sales volumes to absorb our fixed costs, as well as improved manufacturing efficiencies and yields.

Because Phyzyme represents a significant percentage of our product revenue, our product gross margin is impacted to a great degree by the gross margin achieved on sales of Phyzyme. Under our agreement with Danisco, we sell our Phyzyme inventory to Danisco at our cost and then share 50% of Danisco's profit, as defined, when the product is sold to the end user. As a result, our total cost of product revenue for Phyzyme is incurred as we ship product to Danisco, and profit share revenue is recognized in the period in which the product is sold to the end user as reported to us by Danisco. Our gross margin from Phyzyme has been below expectations to date due primarily to higher-than-anticipated product launch and related marketing costs incurred by Danisco; however, we expect our Phyzyme gross margins to improve as a result of the anticipated increase in sales volume in 2008.

In addition, our gross margin is dependent upon the mix of product sales as the cost of product revenue varies from product to product. We believe that our gross margin should be positively impacted as we grow sales of products we market and sell directly to end users, namely Fuelzyme-LF and Purifine, which are expected to have higher gross margins than our Phyzyme products.

Cost of product revenue includes both fixed and variable costs, including materials and supplies, labor, facilities and other overhead costs, associated with our product revenues. Excluded from cost of product revenue are costs associated with the scale-up of manufacturing processes for new products that have not reached commercial-scale production volumes, which we include in our research and development expenses. For the year ended December 31, 2007, cost of product-related revenue increased $6.9 million, or 53%, to $19.8 million compared to $12.9 million for the year ended December 31, 2006. This increase resulted primarily from the increase in our fixed manufacturing costs under our contract with Fermic, S.A., or Fermic, our manufacturing partner in Mexico City, as well as the increase in product revenues. Despite the increase in fixed costs our gross margin improved to 24% in 2007 from 19% in 2006.

We expect our gross margins in 2008 to be positively impacted by continued growth in sales of Phyzyme XP and our other products, as well as cost efficiencies we expect to achieve as we continue to scale up production and improve our manufacturing yields. Because a large percentage of our manufacturing costs are fixed, we will realize continued margin improvements as product-related revenues increase; however, our margins may be negatively impacted in the future if our product-related revenues do not grow in line with our increase in minimum capacity requirements at Fermic. For example, during December 2007, we expanded our manufacturing capabilities at Fermic, which will increase our fixed manufacturing costs by approximately $0.6 million per quarter, and we are planning to further expand our manufacturing capabilities in the fourth quarter of 2008, which will increase our fixed manufacturing costs by an additional $0.6 million per quarter. In addition, our gross margins are dependent upon the mix of product-related sales as the cost of product-related revenue varies from product to product.

Research and Development

	2007	2006	% Change
Research and development	$ 57,727	$ 50,033	15%

Our research and development expenses increased $7.7 million, or 15%, for the year ended December 31, 2007 from the year ended December 31, 2006. This increase was primarily due to incremental payroll and related expenses for biofuels technology development activities.

Research and development expenses consist primarily of costs associated with internal development of our technologies and our product candidates, manufacturing scale-up and bioprocess development for our current products, and costs associated with research activities performed on behalf of our collaborators. We track our researchers' time by type of project. However, we do not track other research and development costs by project; rather, we track such costs by the type of cost incurred.

For the year ended December 31, 2007, we estimate that approximately 39% of our research and development personnel costs, based upon hours incurred, were spent on research activities funded by our collaborators and grants, and that approximately 61% were spent on internal product and technology development. For the year ended December 31, 2006, we estimate that approximately 66% of our research and development personnel-related costs, based upon hours incurred, were spent on research activities funded by our collaborators and grants, and that approximately 34% were spent on internal product and technology development.

Research and development direct personnel-related costs and unallocated non-personnel costs incurred by type of project during the years ended December 31, 2007 and 2006 were as follows (in thousands):

	2007	2006
Collaborations:		
Syngenta	$ 2,310	$ 4,449
Other	4,627	5,374
Total collaborations	6,937	9,823
Grants	787	963
Internal development	12,141	5,560
Unallocated non-personnel	37,862	33,687
	$ 57,727	$ 50,033

Our internal development costs relate primarily to early-stage discovery of new enzymes, regulatory work for mid-stage development products, bioprocess development and technical support for late-stage development, and research and development efforts dedicated to our cellulosic ethanol process development activities. We consider early-stage projects to be those which are experimental in nature, and are often short-lived. We consider

mid-stage development products to be those that are potential candidates to advance to regulatory and commercialization stages. We consider late-stage products those that have been approved for their intended use by one or more regulatory agencies, have already been introduced commercially, or such commercial introduction is pending. Our expenses related to cellulosic ethanol process development relate primarily to our development activities to commercialize cellulosic ethanol.

We estimate that our allocation of internal research and development personnel-related costs during the years ended December 31, 2007 and 2006 was as follows (in thousands):

	2007	2006
Early-stage product development	$ 1,748	$ 607
Mid-stage product development	141	307
Late-stage product development	3,601	2,777
Cellulosic ethanol process development	5,806	—
R&D support activities	845	1,869
	$ 12,141	$ 5,560

The increase in our internal development costs was largely the result of our merger with Celunol Corp., our emphasis on biofuels process development, and, to a lesser extent, the decrease in funding from Syngenta. We have re-deployed these resources into internal development projects, primarily within our biofuels segment. Our allocation of research and development resources varies from period to period and is largely dependent upon resources we have available over and above what is funded by our partners; however, we believe that our internal development projects are benefited to some extent by work we perform under our funded collaborative agreements.

Total research and development costs incurred for the years ended December 31, 2007 and 2006 were as follows (in thousands):

	2007	2006
Personnel-related	$ 19,865	$ 16,346
Laboratory and supplies	7,186	7,455
Outside services	6,983	4,342
Equipment and depreciation	7,562	6,805
Facilities, overhead and other	11,721	10,042
Scale-up manufacturing costs	741	1,432
Share-based compensation	3,669	3,611
	$ 57,727	$ 50,033

Our research and development expenses increased $7.7 million to $57.7 million for the year ended December 31, 2007 from $50.0 million for the year ended December 31, 2006. This increase was attributed to a $3.5 million increase in personnel related costs for direct research and development, primarily for biofuels technology development activities incurred subsequent to our merger with Celunol on June 20, 2007. Our outside services increased $2.6 million primarily related to process improvements for our pilot facility and demonstration-scale cellulosic ethanol facility in Jennings, Louisiana. Our facilities and overhead costs increased $1.7 million and equipment and depreciation increased $0.8 million primarily related to our pilot and demonstration facilities.

We have a limited history of developing commercial products. We determine which products to pursue independently based on various criteria, including: investment required, estimated time to market, regulatory hurdles, infrastructure requirements, and industry-specific expertise necessary for successful commercialization.

Successful products require significant development and investment prior to regulatory approval and commercialization. As a result of the significant risks and uncertainties involved in developing and commercializing such products, we are unable to estimate the nature, timing, and cost of the efforts necessary to complete each of our major projects. These risks and uncertainties include, but are not limited to, the following:

- Our products may require more resources than we anticipate if we are technically unsuccessful in initial development or commercialization efforts.
- The outcome of research is unknown until each stage of testing is completed, up through and including product trials and regulatory approvals, if needed.
- It can take many years from the initial decision to perform research through development until products, if any, are ultimately marketed.
- We have several product candidates in various stages of development related to collaborations and grants as well as internally developed products. At any time, we may modify our strategy and pursue additional collaborations for the development and commercialization of some products that we had intended to pursue independently.

Any one of these risks and uncertainties could have a significant impact on the nature, timing, and costs to complete our product development efforts. Accordingly, we are unable to predict which potential product candidates we may proceed with, the time and costs to complete development, and ultimately whether we will have any products approved by the appropriate regulatory bodies. The various risks associated with our research and development activities are discussed more fully in this report under "Risk Factors."

Selling, General and Administrative Expenses

	2007	2006	% Change
Selling, general and administrative expenses	$ 30,585	$ 14,800	107%

Selling, general and administrative expenses more than doubled to $30.6 million (including share-based compensation of $7.3 million) for the year ended December 31, 2007 from $14.8 million (including share-based compensation of $2.1 million) for the year ended December 31, 2006. This increase is largely due to incremental personnel and overhead costs resulting from the merger and, to a lesser extent, increased personnel costs and professional services costs to support the growth in product sales and increased complexity of our business, combined with the following non-recurring expenses:

- $5.2 million increase in share-based compensation primarily related to $2.3 million in severance obligations to former executives pursuant to transitional employment agreements and $3.4 million for new restricted stock awards and stock option grants primarily for our new executive management team, partially offset by lower share based compensation from existing awards and grants; and
- $2.3 million in cash severance and bonus costs primarily related to obligations to former executives in connection with the merger.

While the non-recurring severance-related obligations and other merger-related expenses will not be repeated in 2008, we expect that our selling, general and administrative expenses will increase in 2008 to support both the anticipated growth in sales of our specialty enzyme products and our biofuels commercialization efforts.

Share-Based Compensation Charges

We recognized $11.0 million, or $0.20 per share, and $5.7 million, or $0.12 per share, in share-based compensation expense for our share-based awards during 2007 and 2006. These charges had no impact on our reported cash flows. Share-based compensation expense was allocated among the following expense categories (in thousands):

	YEAR ENDED DECEMBER 31,	
	2007	2006
Research and development	$ 3,669	$ 3,611
Selling, general and administrative	7,297	2,079
	$ 10,966	$ 5,690

Included in share-based compensation for the year ended December 31, 2007 are non-recurring charges of $2.3 million related to modification of vesting for restricted stock awards for certain executives in connection with separation agreements relating to the merger with Celunol. In addition, our share-based compensation charges increased primarily due to additional options and awards granted to our new executive team in connection with our merger.

Acquired In-Process Research and Development

We allocated $42.4 million of the purchase price in connection with our merger with Celunol to acquired in-process research and development projects. Acquired in-process research and development, or IPR&D, represents the valuation of acquired, to-be-completed research projects. Celunol's ongoing research and development initiatives have primarily involved the development of its patented and proprietary biotechnology to enable production of fuel-grade ethanol from cellulosic biomass materials. As of the merger date, pursuant to authoritative guidance under SFAS No. 2, *"Accounting for Research and Development Costs,"* these projects were not determined to have reached technological feasibility and have no alternative future use. Accordingly, the amounts allocated to those projects were written off in the second quarter of 2007, the period in which the merger was consummated.

We consider the research projects acquired at the merger date collectively to be our "Generation 1" or "Gen 1" technology. To date, we have demonstrated that our Gen 1 technology can produce cellulosic ethanol at a small scale in the laboratory and pilot plant, but at yields and cost that are not yet commercially viable. We will require continued and substantial investment to develop our Gen 1 technology, and continue to believe that Gen 1 will produce a viable technology that will be deployed on a commercial scale as early as 2010. For the year ended December 31, 2007, the substantial portion of our internal research and development personnel-related costs allocated to cellulosic ethanol process development of $5.8 million were either directly or indirectly related to the further development of our Gen 1 technology.

If these projects are not successfully developed, our sales and profitability may be adversely affected in future periods. We believe that the assumptions used in the IPR&D valuation analysis were reasonable at the time of the acquisition. No assurance can be given, however, that the underlying assumptions used to estimate expected project sales, development costs or profitability, or the events associated with such projects, will transpire as estimated.

Restructuring Charges

We recorded charges of $12.0 million during the year ended December 31, 2006 in connection with our strategic reorganization in January 2006, which included costs for employee separation and estimates for facilities consolidation costs. During the year ended December 31, 2007, we recorded $1.5 million of additional

charges reflecting revisions in our estimates for our remaining net facilities consolidation costs upon executing a sublease agreement with a subtenant in October 2007. We may further revise these estimates in future periods, which could give rise to additional charges or adjustments.

Interest and other income, net

Interest income on cash and short term investments was $3.9 million for the year ended December 31, 2007 compared to $2.3 million for the year ended December 31, 2006. The increase was attributable primarily to the increase in cash and investments resulting from proceeds from our Notes offering, as well as higher average rates of return on our investments, consistent with the increase in short-term interest rates from 2006 to 2007.

Interest expense was $5.7 million, net of $0.7 million in capitalized interest for the demonstration facility, for the year ended December 31, 2007 compared to $1.0 million for the year ended December 31, 2006. This increase was attributed to interest on the Notes we issued in March and April 2007.

Provision for Income Taxes

For the years ended December 31, 2007 and 2006, we incurred net operating losses and, accordingly, did not record a provision for income taxes. As of December 31, 2007, we had federal net operating loss carry-forwards of approximately $315.6 million, which will begin to expire in 2011 unless utilized. Our net operating loss carry-forwards for state tax purposes were approximately $158.0 million as of December 31, 2007, which will begin to expire in 2008 unless utilized. We also had federal research credits of approximately $1.8 million which will begin to expire in 2011, California research credits of approximately $1.7 million which will carry over indefinitely, and California manufacturer's investment credits of approximately $0.7 million which will begin to expire in 2010.

Pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the Company's net operating loss and credit carry-forwards may be limited due to cumulative changes in ownership of more than 50%.

Years Ended December 31, 2006 and 2005

The information discussed below for years ended December 31, 2006 and 2005 relates to historical financial results for Diversa only. It does not include the historical financial results of Celunol Corp. nor does it include the proforma financial results to reflect the effects of the merger with Celunol Corp.

Revenues

	2006	2005	% Change
Revenues:			
Phyzyme phytase	$ 8,869	$ 5,185	71%
All other products	6,998	4,647	51%
Total product	15,867	9,832	61%
Collaborative	30,014	34,392	(13)%
Grant	3,317	10,079	(67)%
Total Revenues	$ 49,198	$ 54,303	(9)%

Revenues decreased 9%, or $5.1 million, to $49.2 million for the year ended December 31, 2006 from $54.3 million for the year ended December 31, 2005. This decrease was attributable primarily to a decrease in collaborative and grant revenue, offset in part by an increase in product-related revenues.

Collaborative revenue decreased 13%, or $4.4 million, to $30.0 million, for year ended December 31, 2006 from $34.4 million for year ended December 31, 2005, and accounted for 61% and 63% of total revenue in 2006

and 2005. This decrease is primarily a result of our de-emphasis of certain grants and collaborations that are not core to our current focus, including pharmaceutical collaborations, in favor of greater emphasis on sales of products.

Product revenue for the year ended December 31, 2006 increased 61% to $15.9, million from $9.8 million for the year ended December 31, 2005. This increase was attributable primarily to increased revenue and profit sharing associated with Phyzyme XP phytase sold through our collaboration with Danisco Animal Nutrition, or Danisco, as well as increased sales from most of our other commercial enzyme products, including Bayovac™ SRS and Luminase™ PB-100. In September 2006, the EU Commission granted permanent authorization for the use of Phyzyme XP in broiler poultry feed in Europe, which positively impacted sales of Phyzyme XP in 2007.

During 2006, we shipped approximately $0.9 million in Valley "Ultra-Thin" enzyme to our former U.S. distributor, Valley Research, inc., or Valley. We deferred revenue on our 2006 sales of this product to Valley. As more fully described in *Item 3—Legal Proceedings*, and in the *Notes the Consolidated Financial Statements*, we are currently in a legal dispute with Valley over alleged breach of contract, and have terminated our distribution agreement. We currently market this product under the Fuelzyme-LF brand through our direct salesforce. On March 7, 2007, we issued a letter to Valley terminating our distribution agreement with Valley, effective immediately, on the basis of Valley's not having met certain minimum purchase requirements.

Grant revenue decreased 67%, or $6.8 million, to $3.3 million for the year ended December 31, 2006 as compared to $10.1 million for the year ended December 31, 2005. This is due in large part to our de-emphasis of grants and government contracts. We do not expect our grant revenue to return to the levels we achieved in 2005 and 2004.

Our revenues have historically fluctuated from period to period and likely will continue to fluctuate substantially in the future based upon the timing and composition of funding under existing and future collaboration agreements, regulatory approval timelines for new products, as well as adoption rates of our new and existing commercial products.

Product Gross Profit & Gross Margin

	2006	2005	% Change
Product revenue	$ 15,867	$ 9,832	61%
Cost of product revenue	12,914	10,662	21%
Product gross profit	2,953	(830)	456%
Product gross margin	19%	(8)%	

Cost of product revenue includes both fixed and variable costs, including materials and supplies, labor, facilities and other overhead costs, associated with our product revenues. Excluded from cost of product revenue are costs associated with the scale-up of manufacturing processes for new products which have not reached commercial-scale production volumes, which we include in our research and development expenses. For the year ended December 31, 2006, cost of product-related revenue increased $2.2 million, or 21%, to $12.9 million, compared to $10.7 million for the year ended December 31, 2005. This increase resulted primarily from the increase in our fixed manufacturing costs under our contract with Fermic, our manufacturing partner in Mexico City, as well as the increase product revenues.

We generated a positive gross margin of approximately 19% during 2006 despite an increase in fixed costs over the prior year. This compares to a negative gross margin of 8% in 2005. This gross margin improvement is reflective of higher sales volumes to absorb our fixed costs, as well as well as improved manufacturing efficiencies and yields. We expect that the cost of product-related revenue will decrease as a percentage of product-related revenue once we have completed our manufacturing ramp-up and have achieved a scalable

volume of product sales. We expect our gross margins to be positively impacted by continued growth in sales of Phyzyme XP and our other products, as well as cost efficiencies we expect to achieve as we scale up production and improve our manufacturing yields. Because a large percentage of our manufacturing costs are fixed, we will realize continued margin improvements as product-related revenues increase; however, our margins may be negatively impacted in the future if our product-related revenues do not grow in line with our increase in minimum capacity requirements at Fermic. For example, during the quarter ending September 30, 2006, we expanded our manufacturing capabilities at Fermic, which increased our fixed manufacturing costs by approximately $0.7 million per quarter. In addition, our gross margins are dependent upon the mix of product sales as the cost of product-related revenue varies from product to product.

Research and Development

	2006	2005	% Change
Research and development	$ 50,033	$ 72,751	(31)%

Research and development expenses consist primarily of costs associated with internal development of our technologies and our product candidates, manufacturing scale-up and bioprocess development for our current products, and costs associated with research activities performed on behalf of our collaborators. We track our researchers' time by type of project. However, we do not track other research and development costs by project; rather, we track such costs by the type of cost incurred.

For the year ended December 31, 2006, we estimate that approximately 66% of our research and development personnel-related costs, based upon hours incurred, were spent on research activities funded by our collaborators and through grants, and that approximately 34% were spent on internal product and technology development. For the year ended December 31, 2005, we estimate that approximately 64% of our research and development personnel-related costs, based upon hours incurred, were spent on research activities funded by our collaborators and grants, and that approximately 36% were spent on internal product and technology development.

Research and development personnel-related and unallocated costs incurred by type of project during the years ended December 31, 2006 and 2005 were as follows (in thousands):

	2006	2005
Collaborations:		
Syngenta	$ 4,449	$ 6,433
Other	5,374	4,969
Total collaborations	9,823	11,402
Grants	963	4,573
Internal development	5,560	9,006
Unallocated	33,687	47,770
	$ 50,033	$ 72,751

Our internal development costs relate primarily to early-stage discovery of new enzymes, regulatory work for mid-stage development products, and bioprocess development and technical support for late-stage development. We consider early-stage projects to be those which are experimental in nature, and are often short-lived. We consider mid-stage development products to be those that are potential candidates to advance to regulatory and commercialization stages. We consider late-stage products those that have been approved for their intended use by one or more regulatory agencies, have already been introduced commercially, or such commercial introduction is pending.

We estimate that our allocation of internal research and development personnel-related costs during the years ended December 31, 2006 and 2005 was as follows (in thousands):

	2006	2005
Early-stage product development	$ 607	$ 3,435
Mid-stage product development	307	1,129
Late-stage product development	2,777	1,742
R&D support activities	1,869	2,700
	$ 5,560	$ 9,006

The decrease in our internal development costs was largely the result of our discontinuation of internally-funded projects for our pharmaceutical programs due to our strategic reorganization in early 2006. Our allocation of research and development resources varies from period to period and is largely dependent upon resources we have available over and above what is funded by our partners; however, we believe that our internal development projects are benefited to some extent by work we perform under our funded collaborative agreements.

Research and development costs based upon type of cost incurred for the years ended December 31, 2006 and 2005 were as follows (in thousands):

	2006	2005
Personnel related	$ 16,346	$ 24,981
Laboratory and supplies	7,455	9,609
Outside services	4,342	11,071
Equipment and depreciation	6,805	9,282
Facilities, overhead and other	10,042	17,333
Scale-up manufacturing costs	1,432	—
Share-based compensation	3,611	475
	$ 50,033	$ 72,751

Our research and development expenses decreased $22.8 million to $50.0 million (including share-based compensation of $3.6 million) for the year ended December 31, 2006 from $72.8 million (including share-based compensation of $0.5 million) for the year ended December 31, 2005. This decrease was attributed in large part to a $8.6 million decrease in personnel related costs for direct research and development, resulting primarily from our strategic reorganization announced in January of 2006, pursuant to which we reduced our workforce by 83 employees, comprised mostly of research and development employees. Our direct research and development staff decreased to 127 full time employees at December 31, 2006 from 214 at December 31, 2005. Our facilities and overhead costs decreased by $7.3 million, primarily related to our strategic reorganization in January 2006. Our outside services, laboratories and supplies costs decreased in total by $8.9 million due primarily to our discontinuation of internally-funded projects for our pharmaceutical programs, as well as a decrease in third-party costs incurred under our collaborations and grants. These decreases were offset in part by $1.4 million in scale-up manufacturing costs related to our Valley Ultra-Thin and Luminase PB200 enzyme products.

We have a limited history of developing commercial products. We determine which products to pursue independently based on various criteria, including: investment required, estimated time to market, regulatory hurdles, infrastructure requirements, and industry-specific expertise necessary for successful commercialization. Successful products require significant development and investment prior to regulatory approval and commercialization. As a result of the significant risks and uncertainties involved in developing and commercializing such products, we are unable to estimate the nature, timing, and cost of the efforts necessary to complete each of our major projects. These risks and uncertainties include, but are not limited to, the following:

- Our products may require more resources than we anticipate if we are technically unsuccessful in initial development or commercialization efforts.

- The outcome of research is unknown until each stage of testing is completed, up through and including product trials and regulatory approvals, if needed.

- It can take many years from the initial decision to perform research through development until products, if any, are ultimately marketed.

- We have several product candidates in various stages of development related to collaborations and grants as well as internally developed products. At any time, we may modify our strategy and pursue additional collaborations for the development and commercialization of some products that we had intended to pursue independently.

Any one of these risks and uncertainties could have a significant impact on the nature, timing, and costs to complete our product development efforts. Accordingly, we are unable to predict which potential product candidates we may proceed with, the time and costs to complete development, and ultimately whether we will have any products approved by the appropriate regulatory bodies. The various risks associated with our research and development activities are discussed more fully in this report under "Risk Factors."

Selling, General and Administrative Expenses

	2006	2005	% Change
Selling, general and administrative expenses	$ 14,800	$ 12,990	14%

Selling, general and administrative expenses increased 14%, or $1.8 million, to $14.8 million (including share-based compensation of $2.1 million) for the year ended December 31, 2006, from $13.0 million (including share-based compensation of $0.4 million) for the year ended December 31, 2005. This increase was primarily related to share-based compensation pursuant to the provisions of current accounting rules, as more fully described below.

Amortization of Acquired Intangible Assets

We recorded amortization of acquired intangible assets of approximately $2.6 million for the year ended December 31, 2005 primarily associated with our February 2003 acquisition of intellectual property rights licenses from Syngenta, which we were amortizing over 7 to 15 years. As more fully described below, we recorded an impairment charge related to our intangible assets during the fourth quarter of 2005. As a result of this write-off, we recorded no amortization expense during 2006.

Non-Cash, Share-Based Compensation Charges

In January 2006, we adopted SFAS No. 123(R), "*Share-Based Payment,*" which requires all share-based payments to employees and non-employee directors, including stock option grants, to be recognized in the income statement based on their fair values. Pro forma disclosure, which we previously used, is no longer an alternative.

Prior to January 1, 2006, we accounted for share-based employee compensation plans using the intrinsic value method of accounting in accordance with Accounting Principles Board Opinion, or APB, No. 25, *Accounting for Stock Issued to Employees*, and its related interpretations. Under the provisions of APB No. 25, no compensation expense was recognized with respect to purchases of our common stock under the ESPP or when stock options were granted with exercise prices equal to or greater than market value on the date of grant.

We recognized $5.7 million, or $0.12 per share, and $0.9 million, or $0.02 per share, in share-based compensation expense for our share-based awards during 2006 and 2005. These charges had no impact on our reported cash flows. Share-based compensation expense was allocated among the following expense categories (in thousands):

	YEAR ENDED DECEMBER 31,	
	2006	2005
Research and development	$ 3,611	$ 476
Selling, general and administrative	2,079	401
	$ 5,690	$ 877

Under the modified prospective method of transition under SFAS No. 123(R), we are not required to restate our prior period financial statements to reflect expensing of share-based compensation under the new standard. Therefore, the results for the 2006 are not comparable to the same periods in the prior year.

During the fourth quarter of fiscal 2005, we accelerated the vesting of unvested stock options awarded to all employees and officers under our stock option plan that had exercise prices greater than $10.00. The unvested options to purchase approximately 710,000 shares became fully vested as of December 8, 2005 as a result of this acceleration. These stock options would have all become fully vested before or during 2008. We accelerated these options because the options had exercise prices significantly in excess of then current market value ($5.25 at December 8, 2005), and thus were not fully achieving their original objectives of incentive compensation and employee retention. The acceleration eliminated future compensation expense we would otherwise have been required to recognize in our statements of operations with respect to these options with the implementation of SFAS No. 123(R). The future expense eliminated as a result of the acceleration of the vesting of these options was approximately $1.1 million.

Restructuring Charges

In connection with the decision to reorganize and refocus our resources, in January 2006 we commenced several cost containment measures, including a reduction in workforce of 83 employees and the consolidation of our facilities. We recorded charges of $11.0 million in the first quarter of 2006 related to these activities, under the provisions set forth by SFAS No. 146, "*Accounting for Costs Associated with Exit or Disposal Activities*." During the first quarter of 2006, we completed the employee termination activities under this restructuring and do not anticipate further payments or expenses related to employee separation under this program. The facility consolidation costs are based on estimates that represent the discounted cash flow of lease payments (net of anticipated sublease income) on the vacated space through its contractual lease term in 2016. Pursuant to current accounting rules, we are required to re-assess these estimates on a periodic basis. We recorded a $0.3 million reversal of charges during the quarter ended June 30, 2006 and additional charges of $0.8 million and $0.5 million during the quarters ended September 30, 2006 and December 31, 2006, reflecting revisions in our estimates for our remaining net facilities consolidation costs. We may further revise these estimates in future periods, which could give rise to additional charges or adjustments.

Asset Impairment Charges

During the fourth quarter of 2005, we recorded a $45.7 million impairment charge for activities resulting from management's strategic decision to reorganize and refocus our resources to advance our most promising product candidates and programs that have the greatest near-term opportunities. As a result, in 2005 we recorded write-downs to the carrying value of tangible and intangible assets considered non-essential to our current focus, or otherwise deemed impaired under the provisions set forth by SFAS No. 144, "*Accounting for the Impairment or Disposal of Long-Lived Assets.*"

These charges are summarized below (in thousands):

	Year Ended December 31, 2005
Write-off of intangible assets acquired in connection with fiscal 2003 transactions with Syngenta	$ 40,622
Excess or idle equipment costs	2,237
Write-off of intellectual property licenses	2,886
Total	$ 45,745

We incurred no such impairment charges during 2006.

Interest and other income, net

Net interest and other income was $1.3 million for the year ended December 31, 2006 compared to $0.7 million for the year ended December 31, 2005. The increase was primarily due to higher average rates of return on our investments, consistent with the increase in short-term interest rates from 2005 to 2006 and a decrease in interest expense due to lower debt balances, both partially offset by a decrease in cash and investment balances during 2006.

Provision for Income Taxes

For the years ended December 31, 2006 and 2005, we incurred net operating losses and, accordingly, did not record a provision for income taxes. As of December 31, 2006, we had federal net operating loss carry-forwards of approximately $233.5 million, which will begin to expire in 2011 unless utilized. Our net operating loss carry-forwards for state tax purposes were approximately $48.0 million as of December 31, 2006, which will begin to expire in 2007 unless utilized. We also had federal research credits of approximately $5.2 million which will begin to expire in 2011, California research credits of approximately $4.0 million which will carry over indefinitely, and California manufacturer's investment credits of approximately $0.7 million which will begin to expire in 2010. Our utilization of the net operating losses and credits may be subject to substantial annual limitations pursuant to Section 382 of the Internal Revenue Code, and similar state provisions, as a result of changes in our ownership structure. The annual limitations may result in the expiration of a portion of our net operating loss carry-forwards and credits.

Liquidity and Capital Resources

Since inception, we have financed our business primarily through the sale of common and preferred stock, funding from strategic partners and government grants, the issuance of convertible debt, and product sales. As of December 31, 2007, our strategic partners have provided us more than $300 million in funding since inception and are also committed to additional funding of more than $14 million through 2012 subject to our performance under existing agreements, excluding milestone payments, license and commercialization fees, and royalties or profit sharing. Future committed funding is subject to our performance under existing agreements, and excludes milestone payments, license and commercialization fees, and royalties or profit sharing. Our future committed funding is concentrated within a limited number of collaborators. Our failure to successfully maintain our relationships with these collaborators could have a material adverse impact on our operating results and financial condition.

As of December 31, 2007, we had cash, cash equivalents, and short-term investments of approximately $58 million. Our short-term investments as of such date consisted primarily of U.S. Treasury and government agency obligations and investment-grade corporate obligations. Historically, we have funded our capital equipment purchases through available cash, capital leases and equipment financing line of credit agreements.

Capital Requirements

Our independent registered public accounting firm has included an explanatory paragraph in its report on our 2007 financial statements related to the uncertainty in our ability to continue as a going concern. We anticipate that our cash at December 31, 2007, together with the net proceeds from our sale of our New Notes in February 2008, may not be sufficient to meet the cash requirements to fund our operating expenses, capital expenditures, and working capital beyond December 2008 without additional sources of cash. This risk is attributable primarily to two factors:

- *Uncertainties surrounding the additional capital requirements related to the completion, start-up and commissioning of our demonstration-scale cellulosic ethanol facility.* We do not have fixed fee arrangements with our major engineering and construction firms; as such, most of our engineering and construction costs related to our demonstration-plant are incurred and paid on a time and materials basis. During 2007 and early 2008, we have incurred costs in excess of our projected expenditures for the improvements to our pilot plant and construction of our demonstration plant. We may continue to experience such overages during 2008 in excess of our budgeted expenditures.

- *Minimum liquidity, working capital, and/or market capitalization requirements under our existing bank debt agreement and facilities lease agreements.* As more fully described on page 93-94 of this *Liquidity* section, we may be required to secure certain unsecured obligations under our Bank Agreement and our facilities lease agreements if we fail to maintain certain minimum liquidity, working capital and/or market capitalization thresholds. This could encumber up to $10.7 million of our cash, which is currently unrestricted.

While we believe that we will be successful in generating additional cash through a combination of corporate partnerships and collaborations, federal and state grant funding, and incremental product sales, if we are unsuccessful in raising additional capital from any of these sources, we may need to defer, reduce or eliminate certain planned expenditures. Although we do not presently intend to seek additional equity or debt financing to fund our operations in 2008, we will continue to review our financing opportunities for suitable options. There can be no assurance that we will be able to obtain any sources of financing on acceptable terms, or at all. If we are not able to defer, reduce or eliminate our expenditures, secure additional sources of revenue or otherwise secure additional funding, we may need to restructure or significantly curtail our operations, file for bankruptcy or cease operations.

Completion of 2007 Convertible Notes Offering

In late March 2007 and early April 2007, we completed an offering of $120 million aggregate principal amount of 5.5% Convertible Senior Notes due 2027, or the Notes, in a private placement, generating net cash proceeds to the Company of approximately $114.7 million. The Notes have been registered under the Securities Act of 1933, as amended, to permit registered resale of the Notes and of our common stock issuable upon conversion of the Notes.

The Notes bear interest at 5.5% per year, payable in cash semi-annually, and are convertible at the option of the holders at any time prior to maturity, redemption or repurchase into shares of Verenium common stock at an initial conversion rate of 122.5490 shares per $1,000 principal amount of Notes (subject to adjustment in certain circumstances), which represents an initial conversion price of $8.16 per share. The conversion rate of the Notes may be increased if the average price of the Company's common stock for a period ending on April 1, 2008 is less than $6.40 or in certain circumstances if a holder surrenders Notes for conversion in connection with a make-whole fundamental change that occurs before April 5, 2012.

On or after April 5, 2012, the Company may, at its option, redeem the Notes, in whole or in part, for cash at a redemption price equal to 100% of the principal amount of the Notes to be redeemed plus any accrued and unpaid interest to the redemption date. On each of April 1, 2012, April 1, 2017 and April 1, 2022, holders may

require the Company to purchase all or a portion of their Notes at a purchase price in cash equal to 100% of the principal amount of the notes to be purchased plus any accrued and unpaid interest to the purchase date. Holders may also require the Company to repurchase all or a portion of their Notes upon a fundamental change at a repurchase price in cash equal to 100% of the principal amount of the Notes to be repurchased plus any accrued and unpaid interest to the repurchase date. Pursuant to the terms of the Notes, a "fundamental change" is broadly defined as 1) a change in control, or 2) a termination of trading of our common stock.

We have used a significant portion of the proceeds of this offering to make enhancements to our pilot facility and continue construction and development of our demonstration-scale facility in Jennings, Louisiana, to commercialize our specialty enzymes products, to continue our research and development efforts in both specialty enzymes and biofuels, and for expenses related to our merger with Celunol, all of which have adversely affected, and will continue to adversely affect, our operating results until revenues from our specialty enzymes business and our biofuels business reach levels at which we can fully support our operating and capital expenditures.

As described below, in connection with our recent private placement of new convertible notes, we entered into exchange agreements with certain noteholders, representing $18.5 million in aggregate principal of the existing 5.5% convertible senior notes.

Completion of 2008 Convertible Notes Offering

On February 22, 2008, we completed a private placement of 8% Senior Convertible Notes due April 1, 2012, or the New Notes, and warrants to purchase our common stock. Concurrent with entering into the purchase agreement, we also entered into senior notes exchange agreements with certain existing holders of our 5.5% Notes pursuant to which such noteholders exchanged approximately $18.5 million in aggregate principal amount of the 5.5% Notes for approximately $16.7 million in aggregate principal amount of the New Notes and for warrants to purchase common stock. Including the New Notes to be issued in exchange for the 5.5% Notes, we issued $71 million in aggregate principal amount of the New Notes and warrants to purchase approximately 8 million shares of our common stock. Gross proceeds from new investment were approximately $54 million and net proceeds from new investment, after giving effect to payment of certain transaction-related expenses and the cash cost of the convertible hedge transaction described below, were approximately $45 million.

The New Notes will be convertible on the date of their issuance. Their initial conversion price will be equal to $4.09 per share. The conversion price will be subject to full ratchet anti-dilution protection and a reset provision whereby, to the extent the volume weighted average price of our common stock during the seven trading days prior to the one-year anniversary of the issuance of the New Notes s is less than $3.55 per share, the conversion price will reset to the greater of $2.13 per share or 115% of the volume weighted average price of the common stock at that time. In addition, subject to the satisfaction of certain conditions, including that an effective resale registration statement for the applicable shares be on file, interest payments on the New Notes may be made, at our option, in shares of common stock, valued at a 5% discount to the stock price at the time of payment of the interest. In the event that we do not receive shareholder approval for issuances of shares beyond 19.9% of the number of our issued and outstanding shares as of February 22, 2008, any required share issuances under the New Notes in excess of that amount will be settled for cash in an amount per share equal to the closing sales price of our common stock on the conversion date. The New Notes are subject to automatic conversion at our option if our closing stock price exceeds $8.18 per share over a 30-trading day period ending prior to the date we provides notice of the automatic conversion to investors, the average daily trading volume of our stock over that 30-trading day period equals or exceeds $3 million, and certain other conditions are met.

The warrants are exercisable six months after their issuance. The initial exercise price of the warrants will be $4.44 per share. The exercise price will be subject to weighted average anti-dilution protection. We are not permitted to issue shares of our common stock upon exercise of the warrants unless and until we receive shareholder approval for such issuances. If such shareholder approval is obtained, the warrants, beginning six

months after their issuance, will be exercisable for shares of our common stock. If such shareholder approval is not obtained, the warrants will never be exercisable for shares of common stock and will only be settled for cash on exercise in an amount per share issuable equal to the closing sales price of our common stock on the exercise date less the applicable warrant exercise price.

In connection with the transactions described above, we entered into a convertible hedge transaction with a counterparty, which is intended to reduce the potential dilution upon conversion of the New Notes. The convertible hedge transaction is composed of two separate call options. Under the first call option, on April 1, 2012 (or earlier upon conversion of the New Notes), we will be entitled to purchase 13,288,509 shares of our common stock from the counterparty at a price per share equal to the initial conversion price (or a proportion of such number of shares based on the proportion of the 8% senior convertible notes being converted). Under the second call option, on three exercise dates staggered in six month intervals beginning on October 1, 2013, the counterparty will be entitled to purchase an aggregate of 13,288,509 shares of our common stock at a price per share of $5.16. The cash cost of the convertible hedge transaction was approximately $6.2 million.

We intend to use the net proceeds from the sale of the New Notes and warrants for general corporate and working capital purposes, including the completion of construction, commissioning and start-up of our cellulosic ethanol demonstration facility.

The following table summarizes our principal and interest obligations upon completion of the 2008 Convertible Notes Offering on February 22, 2008 (in thousands):

		Payments due by Period			
	Total	Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years
5.5% Convertible Notes (1)	$ 210,698	$ 5,922	$ 11,165	$ 11,165	$ 182,446
8% Convertible Notes	95,140	4,260	11,360	79,520	—
Total Principal and Interest Obligations	$ 305,838	$ 10,182	$ 22,525	$ 90,685	$ 182,446

1 Principal and interest payments include the effects of the February 22, 2008 senior notes exchange agreements with certain noteholders whom exchanged approximately $18.5 million in aggregate principal amount of the 5.5% Notes for approximately $16.7 million in aggregate principal amount of the 8% New Notes which reduced our semi-annual interest payments on the Notes to $2.8 million from $3.3 million and reduced our principal amount on the Notes to $101.5 million from $120 million.

Balance Sheet

Our consolidated assets have increased by $184.9 million, from $79.9 million at December 31, 2006 to $264.8 million at December 31, 2007, attributable primarily to the following:

- goodwill of $106.1 million, which was recorded in connection with our merger with Celunol Corp., as more fully described on page 68 of this *Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations";* and

- an increase in net property, plant, and equipment of $64.2 million related primarily to capital expenditures for our pilot and demonstration facilities for our biofuels business segment, as more fully described on page 87 of this "*Liquidity"* section.

Our consolidated liabilities have increased by $132.6 million, from $37.0 million at December 31, 2006 to $169.6 million at December 31, 2007, attributable primarily to the following:

- debt of $120.0 million related to our 5% Convertible Senior Notes offering, as more fully described on page 69 of this *Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations";* and

- an aggregate increase of $17.3 million in accounts payable, accrued expenses and accrued compensation related primarily to our increased operating and capital expenditures in connection with our biofuels business segment.

Cash Flows Related to Operating, Investing and Financing Activities

Our operating activities used cash of $35.8 million for the year ended December 31, 2007. Our cash used by operating activities consisted primarily of cash used to fund our net loss of $107.6 million, as well as $5.2 million we paid in merger related transaction costs. Our use of cash was offset in part by the following non-cash charges (in thousands):

Acquired in-process research and development	$42,400
Share-based compensation	10,966
Depreciation and amortization	8,875
	$62,241

Our investing activities used cash of $65.3 million for the year ended December 31, 2007. Our investing activities consisted primarily of advances of $27.5 million made to Celunol Corp., prior to our merger on June 20, 2007, which were used for the construction of the demonstration plant and normal operating activities, and purchase of property and equipment of $43.1 million, partially offset by cash generated through net maturities of short-term investments of $4.2 million to fund operations.

Our financing activities generated net cash of $111.3 million for the year ended December 31, 2007, consisting primarily of net proceeds from our 5.50% Convertible Notes offering.

We are currently in the process of making further modifications and improvements to our pilot facility and constructing our demonstration-scale cellulosic ethanol facility in Jennings, Louisiana. During 2007, the Celunol and Verenium spent in excess of $50 million on these projects in Jennings, and we estimate that the total additional capital expenditures required to complete these projects will be in the range of $30 million to $35 million through mechanical completion, commissioning and start-up of our demonstration facility in the first half of 2008. We do not have fixed fee arrangements with our major engineering and construction firms; as such, most of our engineering and construction costs related to our demonstration-plant are incurred and paid on a time and materials basis. During 2007 and early 2008, we have incurred costs in excess of our projected expenditures for the improvements to our pilot plant and construction of our demonstration plant. We may continue to experience such overages during 2008.

Contractual Obligations

The following table summarizes our contractual obligations at December 31, 2007, excluding our 5.5% Convertible Notes principal and interest payments shown above as of February 22, 2008 to reflect the effects of the 2008 Convertible Notes exchange (in thousands):

		Payments due by Period			
	Total	Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years
Contractual Obligations					
Long-term debt, including capital leases	$ 4,141	$ 2,938	$ 1,203	$ —	$ —
Operating leases(1)	45,471	4,942	10,065	10,810	19,654
Manufacturing costs to Fermic(2)	26,343	10,537	15,806	—	
Purchase commitment(3)	1,322	661	661	—	—
License and research agreements	2,279	1,161	378	290	450
Total Contractual Obligations	$ 79,556	$ 20,239	$ 28,113	$ 11,100	$ 20,104

1 Operating lease obligations are shown net of $7.2 million in sublease rental income that we expect to receive through February 28, 2015, pursuant to a facilities sublease agreement we entered into during the fourth quarter of 2007.

2 Pursuant to our manufacturing agreement with Fermic, we are obligated to reimburse monthly costs related to manufacturing activities. These costs scale up as our projected manufacturing volume increases. As of December 31, 2007, under this agreement we have made minimum commitments to Fermic of approximately $26.3 million, over the next three years.

3 In August 2006, Celunol Corp. entered into a commitment to purchase a piece of equipment for the demonstration plant in the amount of $2.2 million, of which $0.5 million was paid upon signing the agreement and an additional $0.5 million upon shipment which occurred in September 2007. The remaining balance of $1.3 million is to be paid ratably over the 24 month period beginning January 2008 and is included in liabilities on our consolidated balance sheets as of December 31, 2007.

Manufacturing and Supply Agreements

During 2002, we entered into a manufacturing agreement with Fermic to provide us with the capacity to produce commercial quantities of certain enzyme products. Based on actual and projected increased product requirements, the agreement was amended in 2006 to provide for additional capacity to be installed over the next two years. Under the terms of the agreement, we can cancel the committed purchases with thirty months' notice provided that the term of the agreement, including the termination notice period, aggregates four years. Pursuant to our agreement with Fermic, we are also obligated to reimburse monthly costs related to manufacturing activities. These costs scale up as our projected manufacturing volume increases. As of December 31, 2007, under this agreement we have made minimum commitments to Fermic of approximately $26.3 million, over the next three years. In addition, under the terms of the agreement, we are required to purchase certain equipment required for fermentation and downstream processing of the products. Through December 31, 2007, we had incurred costs of approximately $16.1 million for equipment related to this agreement.

During 2008, we anticipate funding as much as $2.8 million in additional equipment costs related to our manufacturing agreement with Fermic. As we continue to develop our commercial manufacturing platforms, we will be required to purchase additional capital equipment under this agreement.

Our supply agreement with Danisco for Phyzyme contains provisions which allow Danisco, with six months advance notice, to assume of the right to manufacture Phyzyme. If Danisco were to exercise this right, we would likely experience significant excess capacity at Fermic. If Danisco assumed the right to manufacture Phyzyme and we were unable to absorb the excess capacity at Fermic with other products, our results of operations and financial condition would be adversely effected.

Bank Debt

On September 30, 2005, we entered into a $14.6 million Loan and Security Agreement (the "Bank Agreement") with a commercial bank (the "Bank"). The Bank Agreement provided for a one-year credit facility for up to $10.0 million in financing for qualified equipment purchases in the United States and Mexico (the "Equipment Advances") and a $4.6 million letter of credit sub-facility (the "Letter of Credit Sublimit"). The Bank Agreement was amended in October 2006 to increase the Letter of Credit Sublimit to $4.7 million. Borrowings under the Equipment Advances are structured as promissory notes which are secured by qualified equipment purchases and repaid over 36 to 48 months, depending on the location of the equipment financed. Borrowings bear interest at the Bank's prime rate (8.0% at December 31, 2007) plus 0.75%. On September 30, 2006, our draw-down period under the Equipment Advances expired.

The Bank Agreement contains standard affirmative and negative covenants and restrictions on actions by us including, but not limited to, activity related to common stock repurchases, liens, investments, indebtedness, and fundamental changes in, or dispositions of, our assets. We may take certain of these actions with the consent of the Bank.

On February 22, 2008, we executed an amendment to the Bank Agreement. Pursuant to the amendment, in exchange for the Bank's consent to the private placement of our New Notes and warrants, we agreed to expand the scope of the security interest under the loan and security agreement to include substantially all of our assets excluding our intellectual property. In return, the Bank modified our minimum cash covenant to reduce the required minimum liquidity from $25 million to an amount equal to 150% of the total amount of our obligations to the Bank under the Bank Agreement.

At December 31, 2007, there was approximately $2.3 million in outstanding borrowings under the Equipment Advances and a letter of credit for approximately $4.7 million under the Letter of Credit Sublimit, as required under our facilities leases.

As of December 31, 2007, we were in compliance with all debt covenants under our various financing agreements.

Letter of Credit

Pursuant to our facilities leases for our office and laboratory space in San Diego, we are required to maintain a letter of credit on behalf of our landlord in lieu of a cash deposit. The total amount required under the letter of credit is based on minimum required working capital and market capitalization, as follows:

Working Capital		Market Capitalization	Required Letter of Credit
Greater than $75 million		N/A	$100,000
$50 million to $75 million	or	$350 million	$100,000 plus 12 months' rent
Less than $50 million	and	Less than $350 million	$100,000 plus 24 months' rent

Currently, and as of December 31, 2007, we have an unsecured letter of credit in place pursuant to this agreement for approximately $4.7 million, representing the $100,000 minimum and approximately 12 months' current rent. The letter of credit is issued under our existing Bank Agreement as described above. Any increases to our letter of credit resulting from increases in rent or changes in our working capital or market capitalization are effective upon notice to us by our landlord. As of December 31, 2007, our working capital was approximately $35 million and our market capitalization was approximately $315 million. Based on this, and pursuant to our lease agreement, upon notice by our landlord we would be required to increase our letter of credit by approximately $5 million, to approximately $9.7 million. However, upon receipt of the net cash proceeds from our debt offering in February 2008, our working capital increased to more than $50 million and, as a result, our required letter of credit remains at its current level.

During 2008, if our market capitalization remains below $350 million and our working capital declines below $50 million, we will be obligated to increase our letter of credit to approximately $9.7 million. If we are unable to secure additional amounts for an unsecured letter of credit under our existing Bank Agreement, or new financing arrangements, we may be required to secure the additional obligation with cash.

Off-Balance Sheet Arrangements

Except as described above, we do not have any off-balance sheet arrangements that would give rise to additional material contractual obligations as of December 31, 2007.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosures. On an ongoing basis, we evaluate these estimates, including those related to revenue recognition, long-lived assets, accrued liabilities, and income taxes. These estimates are based on historical experience, information received from third parties, and on various other assumptions that are believed to be 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 believe the following critical accounting policies affect the significant judgments and estimates used in the preparation of our consolidated financial statements.

Goodwill

As of December 31, 2007, the Company recorded $106.1 million of goodwill on its balance sheet, resulting from its recent merger with Celunol Corp., as more fully described in *Note 2, "Merger Transaction."*

We record goodwill and other intangible assets in accordance with *SFAS No. 142*, "*Goodwill and Other Intangible Assets."* The purchase method of accounting for acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair value of the net tangible and intangible assets acquired. Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to at least annual impairment tests.

SFAS No. 142 requires that goodwill and certain intangible assets be assessed for impairment using fair value measurement techniques. If the carrying amount of a reporting unit exceeds its fair value, then a goodwill impairment test is performed to measure the amount of the impairment loss, if any. The goodwill impairment test compares the implied fair value of the reporting unit's goodwill with the carrying amount of that goodwill. The implied fair value of goodwill is determined in the same manner as in a business combination. Determining the fair value of the implied goodwill is judgmental in nature and often involves the use of significant estimates and assumptions. These estimates and assumptions could have a significant impact on whether or not an impairment charge is recognized and also the magnitude of any such charge. Estimates of fair value are primarily determined using discounted cash flows and market comparisons. These approaches use significant estimates and assumptions, including projection and timing of future cash flows, discount rates reflecting the risk inherent in future cash flows, perpetual growth rates, determination of appropriate market comparables, and determination of whether a premium or discount should be applied to comparables. It is reasonably possible that the plans and estimates used to value these assets may be incorrect. If our actual results, or the plans and estimates used in future impairment analyses, are lower than the original estimates used to assess the recoverability of these assets, we could incur additional impairment charges. As of December 31, 2007, we had $106.1 million of goodwill.

We assess goodwill for potential impairments an at least on annual basis. We perform this analysis on October 1 of each year. If goodwill is deemed impaired, losses could be recorded in future periods.

Revenue Recognition

We follow the provisions as set forth by current accounting rules, which primarily include the Securities and Exchange Commission's Staff Accounting Bulletin, or SAB, No. 104, "*Revenue Recognition."*

We generally recognize revenue when we have satisfied all contractual obligations and we are reasonably assured of collecting the resulting receivable. We are often entitled to bill our customers and receive payment from our customers in advance of recognizing the revenue under current accounting rules. In those instances where we have billed our customers or received payment from our customers in advance of recognizing revenue, we include the amounts in deferred revenue on our balance sheet.

We generate revenue from research collaborations generally through funded research, up-front fees to initiate research projects, fees for exclusivity in a field, and milestones. We recognize revenue from research funding on a "proportional performance" basis, as research hours are incurred under each agreement. We recognize fees to initiate research over the life of the project. We recognize revenue from exclusivity fees over the period of exclusivity. Our collaborations often include contractual milestones. When we achieve these milestones, we are entitled to payment, as defined by the underlying agreements. We recognize revenue for milestone payments when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement, (ii) the milestone represents the culmination of an earnings process, (iii) the milestone payment is non-refundable and (iv) our past research and development services, as well as our ongoing commitment to provide research and development services under the collaboration, are charged at fees that are comparable to the fees that the we customarily charges for similar research and development services.

We recognize revenue from grants as related costs are incurred, as long as such costs are within the funding limits specified by the underlying grant agreements.

We recognize revenue related to the sale of our inventory as we ship or deliver products, provided all other revenue recognition criteria have been met. We recognize revenue from products sold through distributors or other third-party arrangements upon shipment of the products, if the distributor has a right of return, provided that (a) the price is substantially fixed and determinable at the time of sale; (b) the distributor's obligation to pay us is not contingent upon resale of the products; (c) title and risk of loss passes to the distributor at time of shipment; (d) the distributor has economic substance apart from that provided by us; (e) we have no significant obligation to the distributor to bring about resale of the products; and (f) future returns can be reasonably estimated. For any sales that do not meet all of the above criteria, revenue is deferred until all such criteria have been met. We include our profit-sharing revenues in product revenues on the statement of operations. We recognize profit-sharing revenues during the quarter in which such profit sharing revenues are earned based on calculations provided by our profit-sharing partner. To date, we have generated a substantial portion of our product revenues, including profit-sharing revenues, through our agreements with Danisco.

We sometimes enter into revenue arrangements that include the delivery of more than one product or service. In these cases, we recognize revenue from each element of the arrangement as long as we are able to determine a separate value for each element, we have completed our obligation to deliver or perform on that element and we are reasonably assured of collecting the resulting receivable.

Share-based Compensation

Effective January 1, 2006, we calculate the fair value of all share-based payments to employees and non-employee directors, including grants of stock options, non-restricted and restricted shares, and awards issued

under the employee stock purchase plan, and amortize these fair values to share-based compensation in the income statement over the respective vesting periods of the underlying awards.

Share-based compensation related to stock options includes both the amortization of the fair value of options at the date of grant determined using Black-Scholes Merton ("BSM") valuation model. We amortize the fair value of options to expense over the vesting periods of the underlying options.

Share-based compensation related to awards issued under our employee stock purchase plan, or ESPP, after December 31, 2005 are based on calculations of fair value under the BSM valuation model which are similar to how stock option valuations are made. We amortize the fair value of ESPP awards to expense over the vesting periods of the underlying awards.

We estimate the fair value of stock option awards and awards under the ESPP on the date of grant using assumptions about volatility, expected life of the awards, risk-free interest rate, and dividend yield rate. The expected volatility in this model is based on the historical volatility of our common stock. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time awards are granted, based on maturities which approximate the expected life of the options. The expected life of the options granted is estimated using the historical exercise behavior of employees. The expected dividend rate takes into account the absence of any historical payments and management's intention to retain all earnings for future operations and expansion.

We estimate the fair value of non-restricted and restricted stock awards based upon the closing market price of our common stock at the date of grant. We charge the fair value of non-restricted awards to share-based compensation upon grant. We amortize the fair value of restricted awards to share-based compensation expense over the vesting period of the underlying awards.

Convertible Debt and Derivative Accounting

We perform an assessment of all embedded features of a debt instrument to determine if 1) such features should be bifurcated and separately accounted for, and, 2) if bifurcation requirements are met, whether such features should be classified and accounted for as equity or liability. Under equity accounting, the fair value of the embedded feature is measured initially and included in stockholders' equity, and remeasurement is not required. Under liability accounting, the fair value of the embedded feature is measured initially, included as a liability on the balance sheet, and remeasured each reporting period. Any changes in fair value are recorded in the statement of operations. We monitor, on an on ongoing basis, whether events or circumstances could give rise to a change in our classification of embedded features.

Long-Lived Assets

We review long-lived assets, including leasehold improvements, property and equipment, and acquired intangible assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. This requires us to estimate future cash flows related to these assets. Actual results could differ from those estimates, which may affect the carrying amount of assets and the related amortization expense.

Income Taxes

Effective in 2007, we account for income taxes pursuant FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes—An Interpretation of FASB Statement No. 109,* or FIN 48. FIN 48 prescribes a recognition threshold and measurement attributes for financial statement disclosure of tax positions taken or expected to be taken on our tax return. Under FIN 48, we do not recognize an uncertain tax position as a deferred tax asset if it has less than a 50% likelihood of being sustained.

We adopted the provisions of FIN 48 on January 1, 2007, and commenced analyzing filing positions in all of the federal and state jurisdictions where it is required to file income tax returns, as well as all open tax years in these jurisdictions. As a result of adoption, we have recorded no additional tax liability. As of December 31, 2007 we have not yet completed our analysis of our deferred tax assets for net operating losses of $91.9 million and research and development credits of $2.7 million generated in years prior to 2007 and net operating losses of $27.6 million and research and development credits of $0.2 generated in 2007. As such, we have removed these amounts and the offsetting valuation allowance has been removed from our deferred tax assets. We are in the process of completing a Section 382 analysis regarding the limitation of the net operating loss and research and development credits.

We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. While we have considered future taxable income and ongoing tax planning strategies in assessing the need for the valuation allowance, in the event we were to determine that we would be able to realize our deferred tax assets in the future in excess of their net recorded amounts, an adjustment to the deferred tax assets would increase our income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the deferred tax assets would be charged to income in the period such determination was made. As of December 31, 2007, we had $36.9 million in gross deferred tax assets, excluding any estimated deferred tax assets related to our NOL's and R&D credits. Our deferred tax assets at December 31, 2007 were fully offset by a valuation allowance.

Inventories

We value inventory at the lower of cost (first in, first out) or market value and, if necessary, reduce the value by an estimated allowance for excess and obsolete inventories. The determination of the need for an allowance is based on our review of inventories on hand compared to estimated future usage and sales, as well as, judgments, quality control testing data, and assumptions about the likelihood of obsolescence.

Capitalized Interest

We capitalize interest on capital projects, namely our cellulosic ethanol demonstration facility, commencing with the first expenditure for the project and continuing until the project is substantially complete and ready for its intended use. We amortize the capitalized interest to depreciation expense using the straight-line method over the same lives as the related assets.

Recently Issued Accounting Standards

Information with respect to recent accounting standards is included in Note 1 of the *Notes to Consolidated Financial Statements*.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Our exposure to market risk is limited to interest rate risk and, to a lesser extent, foreign currency risk.

Interest Rate Exposure

Our investment portfolio consists primarily of high-grade commercial paper, certificates of deposit and debt obligations of various governmental agencies. We manage our investment portfolio in accordance with our investment policy. The primary objectives of our investment policy are to preserve principal, maintain a high degree of liquidity to meet operating needs and obtain competitive returns subject to prevailing market conditions. These investments are subject to risk of default, changes in credit rating and changes in market value. These investments are also subject to interest rate risk and will decrease in value if market interest rates increase. Due to the conservative nature of our investments and relatively short effective maturities of the debt instruments, we believe interest rate risk is mitigated. Our investment policy specifies the credit quality standards for our investments and limits the amount of exposure from any single issue, issuer or type of investment.

As of December 31, 2007, we had outstanding debt obligations of $123.9 million, including $120.0 million of 5.5% convertible senior notes. As of December 31, 2007, the fair value of these notes was approximately $105 million.

Foreign Currency Exposure

We engage third parties, including Fermic, our contract manufacturing partner in Mexico City, to provide various services. From time to time certain of these services result in obligations that are denominated in other than U.S. dollars. Foreign currency risk is minimized because the amount of such obligations is not material.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Verenium Corporation

We have audited the accompanying consolidated balance sheets of Verenium Corporation as of December 31, 2007 and 2006, and the related consolidated 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 provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Verenium Corporation at December 31, 2007 and 2006, and the consolidated 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.

As discussed in Note 1 to the consolidated financial statements, Verenium Corporation changed its method of accounting for share based payments in accordance with Statement of Financial Accounting Standards No. 123 (revised 2004) on January 1, 2006.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 1, the Company has recurring operating losses and an accumulated deficit of $437.1 million at December 31, 2007. These factors, among others, as discussed in Note 1 to the consolidated financial statements, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The 2007 consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the outcome of this uncertainty.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Verenium Corporation's internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 16, 2008 expressed an adverse opinion on the effectiveness of internal control over financial reporting.

/s/ ERNST & YOUNG LLP

San Diego, California
March 16, 2008

VERENIUM CORPORATION

CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

	December 31, 2007	December 31, 2006
ASSETS		
Current assets:		
Cash and cash equivalents	$ 48,743	$ 38,541
Short-term investments	9,234	13,371
Accounts receivable, net (including $2,218 and $418 from a related party at December 31, 2007 and 2006)	11,118	8,646
Inventories, net	5,904	4,098
Prepaid expenses and other current assets	1,408	2,378
Total current assets	76,407	67,034
Property, plant and equipment, net	76,663	12,418
Goodwill	106,134	—
Debt issuance costs and other assets	5,575	453
Total assets	$ 264,779	$ 79,905
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 16,412	$ 6,702
Accrued expenses	6,865	2,461
Accrued compensation	8,078	4,905
Restructuring reserve, current portion	1,518	1,908
Deferred revenue (including $4,142 and $2,906 from a related party at December 31, 2007 and 2006)	5,478	5,395
Current portion of notes payable	2,712	5,223
Total current liabilities	41,063	26,594
Convertible senior notes	120,000	—
Notes payable, less current portion	1,160	3,724
Deferred revenue, less current portion (including $200 from a related party at December 31, 2006)	—	783
Restructuring reserve, less current portion	5,496	5,888
Other long term liabilities	1,845	—
Total liabilities	169,564	36,989
Commitments and contingencies		
Stockholders' equity:		
Preferred stock—$0.001 par value; 5,000 shares authorized, no shares issued and outstanding at December 31, 2007 and 2006	—	—
Common stock—$0.001 par value; 170,000 and 90,000 shares authorized, 63,092 and 48,235 shares issued and outstanding at December 31, 2007 and 2006	63	48
Additional paid-in capital	532,173	372,415
Accumulated deficit	(437,071)	(329,486)
Accumulated other comprehensive income (loss)	50	(61)
Total stockholders' equity	95,215	42,916
Total liabilities and stockholders' equity	$ 264,779	$ 79,905

See accompanying notes.

VERENIUM CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31,		
	2007	2006	2005
Revenues:			
Collaborative (including related party revenue of $9,308, $21,671 and $24,143 in 2007, 2006 and 2005)	$ 17,581	$ 30,014	$ 34,392
Grant	2,717	3,317	10,079
Product (including related party revenue of $3,408, $1,025 and $164 in 2007, 2006 and 2005)	25,975	15,867	9,832
Total revenue	46,273	49,198	54,303
Operating expenses:			
Cost of product revenue (including related party costs of $3,406, $1,132 and $278)	19,815	12,914	10,662
Research and development	57,727	50,033	72,751
Selling, general and administrative	30,585	14,800	12,990
Acquired in-process research and development	42,400	—	—
Amortization of acquired intangible assets	—	—	2,602
Restructuring charges	1,481	12,026	—
Asset impairment charges	—	—	45,745
Total operating expenses	152,008	89,773	144,750
Loss from operations	(105,735)	(40,575)	(90,447)
Other income (expense)	(75)	—	—
Interest income	3,877	2,307	2,011
Interest expense	(5,652)	(1,003)	(1,282)
Net loss	$ (107,585)	$ (39,271)	$ (89,718)
Net loss per share, basic and diluted	$ (1.97)	$ (0.85)	$ (2.04)
Shares used in calculating net loss per share, basic and diluted	54,607	46,474	44,064

See accompanying notes.

VERENIUM CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock						
	Shares	Amount	Additional Paid-In Capital	Deferred Compensation	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance at January 1, 2005	43,730	$ 44	$ 351,736	—	$ (200,497)	$ (337)	$ 150,946
Net loss	—	—	—	—	(89,718)	—	(89,718)
Change in unrealized loss on available-for-sale securities	—	—	—	—	—	134	134
Comprehensive loss	—	—	—	—	—	—	(89,584)
Issuance of common stock under stock plans, net of forfeitures	1,318	1	2,564	—	—	—	2,565
Non-cash compensation charges	—	—	142	—	—	—	142
Deferred compensation charges, net of adjustments for forfeitures	—	—	3,865	(3,865)	—	—	—
Amortization of deferred compensation, net	—	—	—	735	—	—	735
Balance at December 31, 2005	45,048	$ 45	$ 358,307	$ (3,130)	$ (290,215)	$ (203)	$ 64,804
Net loss	—	—	—	—	(39,271)	—	(39,271)
Change in unrealized loss on available-for-sale securities	—	—	—	—	—	142	142
Comprehensive loss	—	—	—	—	—	—	(39,129)
Issuance of common stock under stock plans, net of forfeitures	3,187	3	11,548	—	—	—	11,551
Reversal of deferred compensation pursuant to adoption of SFAS No. 123(R)	—	—	(3,130)	3,130	—	—	—
Share-based compensation, net	—	—	5,690	—	—	—	5,690
Balance at December 31, 2006	48,235	$ 48	$ 372,415	$ —	$ (329,486)	$ (61)	$ 42,916
Net loss	—	—	—	—	(107,585)	—	(107,585)
Change in unrealized loss on available-for-sale securities	—	—	—	—	—	111	111
Comprehensive loss	—	—	—	—	—	—	(107,474)
Issuance of common stock under stock plans, net of forfeitures	713	1	1,796	—	—	—	1,797
Issuance of shares in merger	14,144	14	142,886	—	—	—	142,900
Valuation of options and warrants assumed in merger	—	—	4,110	—	—	—	4,110
Share-based compensation, net	—	—	10,966	—	—	—	10,966
Balance at December 31, 2007	63,092	$ 63	$ 532,173	$ —	$ (437,071)	$ 50	$ 95,215

See accompanying notes.

VERENIUM CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2007	2006	2005
Operating activities:			
Net loss	$ (107,585)	$ (39,271)	$ (89,718)
Adjustments to reconcile net loss to net cash used in operating activities:			
Acquired in-process research and development	42,400	—	—
Depreciation and amortization	8,875	9,018	17,732
Non-cash, asset impairment charges	—	—	45,745
Non-cash, share-based compensation	10,966	5,690	877
Non-cash, restructuring	—	226	—
Net loss on disposals of property and equipment	80	391	1,297
Change in operating assets and liabilities (net of effects of Celunol Corp. merger):			
Accounts receivable, net	(2,272)	366	(3,241)
Inventory	(1,806)	(1,480)	(1,744)
Other assets	2,768	(65)	719
Accounts payable and accrued liabilities	12,284	3,564	1,713
Deferred revenue	(700)	(2,607)	2,893
Restructuring reserve	(782)	7,796	—
Net cash used in operating activities	(35,772)	(16,372)	(23,727)
Investing activities:			
Purchases of property, plant and equipment	(43,101)	(4,362)	(7,286)
Purchases of investments	(309,376)	(217,248)	(223,015)
Sales and maturities of investments	313,624	225,590	265,977
Cash acquired in merger with Celunol Corp., net of transaction costs	1,029	—	—
Advances made to Celunol Corp.	(27,500)	—	—
Net cash provided by (used in) investing activities	(65,324)	3,980	35,676
Financing activities:			
Proceeds from issuance of convertible notes, net of transaction costs	114,741	—	—
Proceeds from equipment financing	—	3,088	5,540
Principal payments on debt obligations	(5,240)	(7,500)	(9,991)
Proceeds from sale of assets	—	781	—
Net proceeds from issuance of common stock	1,797	10,705	2,565
Net cash provided by (used in) financing activities	111,298	7,074	(1,886)
Net (decrease) increase in cash and cash equivalents	10,202	(5,318)	10,063
Cash and cash equivalents at beginning of year	38,541	43,859	33,796
Cash and cash equivalents at end of year	$ 48,743	$ 38,541	$ 43,859
Supplemental disclosure of cash flow information:			
Interest paid	$ 4,735	$ 992	$ 1,205
Supplemental disclosure of non-cash operating and financing activities:			
Value of common shares issued in connection with the Celunol Corp. merger	$ 142,900	$ —	$ —
Fair value of warrants and options issued in connection with the Celunol Corp. merger	$ 4,110	$ —	$ —
Restricted common stock issued to settle employee bonus liabilities	$ —	$ 620	$ —
Restricted common stock issued to settle employee termination costs	$ 990	$ 226	$ —

See accompanying notes.

1. Organization and Summary of Significant Accounting Policies

The Company

Verenium Corporation ("Verenium" or the "Company"), formerly known as Diversa Corporation, was incorporated in Delaware in 1992. The Company operates in two business segments, biofuels and specialty enzymes. Its biofuels business segment is focused on developing unique technical and operational capabilities designed to enable the production and commercialization of biofuels, in particular ethanol from cellulosic biomass. Its specialty enzymes business segment develops customized enzymes for use within the alternative fuels, specialty industrial processes, and animal nutrition and health markets to enable higher throughput, lower costs, and improved environmental outcomes.

As more fully described in Note 2, "*Merger Transaction,*" in June 2007, the Company completed a merger with Celunol Corp. ("Celunol"), a Delaware corporation that prior to the merger directed its integrated technologies to the production of low-cost cellulosic ethanol from an array of biomass sources. Following the merger, Diversa was renamed Verenium Corporation, and Celunol was renamed Verenium Biofuels Corporation, a wholly-owned subsidiary of Verenium Corporation.

As more fully described in Note 14, "*Subsequent Events,*" in February 2008 the Company completed a private placement of convertible notes and warrants, raising estimated net cash proceeds of approximately $45 million.

Basis of Presentation

The Company has incurred net losses of $89.7 million, $39.3 million, and $107.6 million for the years ended December 31, 2005, 2006 and 2007, and has an accumulated deficit of $437.1 million as of December 31, 2007. Based on the Company's operating plan, its existing working capital is not sufficient to meet the cash requirements to fund the Company's planned operating expenses, capital expenditures, and working capital requirements through December 31, 2008 without additional sources of cash and/or the deferral, reduction or elimination of significant planned expenditures.

These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. This basis of accounting contemplates the recovery of the Company's assets and the satisfaction of liabilities in the normal course of business.

The Company's plan to address the expected shortfall of working capital is to generate additional financing through a combination of corporate partnerships and collaborations, federal and state grant funding, and incremental product sales. If the Company is unsuccessful in raising additional capital from any of these sources, it will defer, reduce, or eliminate certain planned expenditures. The Company will continue to consider other financing alternatives. There can be no assurance that the Company will be able to obtain any sources of financing on acceptable terms, or at all.

If the Company cannot obtain sufficient additional financing in the short-term, it may be forced to restructure or significantly curtail its operations, file for bankruptcy or cease operations. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts and classification of liabilities that might be necessary should the Company be forced to take any such actions.

Basis of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, including Verenium Biofuels Corporation (formerly Celunol), since its acquisition effective June 20, 2007. All intercompany accounts have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with U.S. 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 reporting periods. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers cash equivalents to be only those investments which are highly liquid, readily convertible to cash and which mature within three months from the date of purchase.

Short-term Investments

Based on the nature of the assets held by the Company and management's investment strategy, the Company's investments have been classified as available-for-sale. Management determines the appropriate classification of debt securities at the time of purchase. Securities classified as available-for-sale are carried at estimated fair value, as determined by quoted market prices, with unrealized gains and losses reported as a separate component of comprehensive income. At December 31, 2007 and 2006, the Company had no investments that were classified as trading or held-to-maturity as defined by the Financial Accounting Standards Board ("SFAS") Statement No. 115, "*Accounting for Certain Investments in Debt and Equity Securities.*" The amortized cost of debt securities classified as available-for-sale is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion is included in interest income. Realized gains and losses on sales of securities classified as available-for-sale are computed based upon initial cost adjusted for any other than temporary declines in fair value and are included in interest income. The cost of securities sold is based on the specific identification method. Interest on securities classified as available-for-sale is included in interest income.

Inventories

Inventories are valued at the lower of cost or market value. Cost is determined by the first-in, first-out method, and includes material, labor, and factory overhead. If necessary, the Company adjusts its inventories by an estimated allowance for excess and obsolete inventories. The determination of the need for an allowance is based on management's review of inventories on hand compared to estimated future usage and sales, as well as judgments, quality control testing data, and assumptions about the likelihood of obsolescence. The Company maintained a valuation allowance of $350,000 at December 31, 2007 and 2006.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents, and short-term investments. The Company limits its exposure to credit risk by placing its cash with high credit quality financial institutions. The Company generally invests its excess cash in U.S. Treasury and government agency obligations and investment-grade corporate securities.

The Company's accounts receivable consist of amounts due from customers for the sale of products, amounts due from governmental agencies for costs incurred under funded projects, and amounts due from corporate partners under various collaboration agreements. The Company regularly assesses the need for an allowance for potentially uncollectible accounts receivable arising from its customers' inability to make required payments. The Company has a limited number of accounts receivable and uses the specific identification method as a basis for determining this estimate. Historically, losses related to uncollectible accounts receivable have been minimal. The Company maintained an allowance for doubtful accounts of $74,000 and $229,000 at December 31, 2007 and 2006, respectively.

Property, Plant and Equipment

Property, plant and equipment are stated at cost and depreciated over the estimated useful lives of the assets (generally three to ten years) using the straight-line method. Amortization of leasehold improvements is computed over the shorter of the lease term or the estimated useful life of the related assets. For the years ended December 31, 2007, 2006 and 2005, the Company recorded depreciation expense of $8.9 million, $9.0 million and $12.5 million, which includes the depreciation of assets under capital leases.

Pursuant to SFAS No. 34, *"Capitalization of Interest Cost,"* the Company capitalizes interest on capital projects. Capitalization commences with the first expenditure for the project and continues until the project is substantially complete and ready for its intended use. The Company amortizes the capitalized interest to depreciation expense using the straight-line method over the same lives as the related assets. Included in the costs of its demonstration facility as of December 31, 2007 is $0.7 million in capitalized interest, which was determined by applying the Company's effective interest rate to the average amount of accumulated expenditures on its demonstration facility.

Goodwill

As of December 31, 2007, the Company recorded $106.1 million of goodwill on its balance sheet all of which resulted from its recent merger with Celunol, as more fully described in *Note 2*, *"Merger Transaction."*

The Company records goodwill and other intangible assets in accordance with SFAS No. 142, *"Goodwill and Other Intangible Assets."* The purchase method of accounting for acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair value of the net tangible and intangible assets acquired. The Company uses the discounted cash flow method to estimate the value of intangible assets acquired. The estimates used to value and amortize intangible assets are consistent with the plans and estimates that the Company uses to manage its business and are based on available historical information and industry estimates and averages. These judgments can significantly affect the Company's net operating results.

SFAS No. 142 requires that goodwill and certain intangible assets be assessed for impairment on an annual basis, or more frequently if indicators of impairment exist, using fair value measurement techniques. If the carrying amount of a reporting unit exceeds its fair value, then a goodwill impairment test is performed to measure the amount of the impairment loss, if any. The goodwill impairment test, which the Company performs annually as of October 1st, compares the implied fair value of the reporting unit's goodwill with the carrying amount of that goodwill. The implied fair value of goodwill is determined in the same manner as in a business combination. Determining the fair value of the implied goodwill is judgmental in nature and often involves the use of significant estimates and assumptions. These estimates and assumptions could have a significant impact on whether or not an impairment charge is recognized and also the magnitude of any such charge. Estimates of fair

value are primarily determined using discounted cash flows and market comparisons. These approaches use significant estimates and assumptions, including projection and timing of future cash flows, discount rates reflecting the risk inherent in future cash flows, perpetual growth rates, determination of appropriate market comparables, and determination of whether a premium or discount should be applied to comparables. It is reasonably possible that the plans and estimates used to value these assets may be incorrect. If actual results, or the plans and estimates used in future impairment analyses, are lower than the original estimates used to assess the recoverability of these assets, the Company could incur impairment charges.

Impairment of Long-Lived Assets

In accordance with SFAS No. 144, "*Accounting for the Impairment or Disposal of Long-Lived Assets*," if indicators of impairment exist, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, the Company measures the amount of such impairment by comparing the carrying value of the asset to the present value of the expected future cash flows associated with the use of the asset. In connection with the Company's strategic reorganization, the Company determined, based on an analysis of estimated future cash flows, that the Company's property and equipment carrying values were impaired as of December 31, 2005, and recorded an impairment charge totaling $2.2 million to write down the value of these assets to their net realizable value (*See Note 8*, *"Impairment Charges and Restructuring Activities"*).

Fair Value of Financial Instruments

Financial instruments, including cash and cash equivalents, short-term investments, accounts receivable, accounts payable, and accrued liabilities, are carried at cost, which management believes approximates fair value because of the short-term maturity of these instruments. The fair value of our Convertible Senior Notes as of December 31, 2007 was approximately $105 million.

Revenue Recognition

The Company recognizes revenue in accordance with Securities and Exchange Commission Staff Accounting Bulletin ("SAB") No. 104, "*Revenue Recognition*" and Emerging Issues Task Force ("EITF") Issue No. 00-21, "*Accounting for Revenue Arrangements with Multiple Deliverables*."

Under SAB No. 104, revenue is recognized when the following criteria have been met: i) persuasive evidence of an arrangement exists; ii) services have been rendered or product has been delivered; iii) price to the customer is fixed and determinable; and iv) collection of the underlying receivable is reasonably assured.

Billings to customers or payments received from customers are included in deferred revenue on the balance sheet until all revenue recognition criteria are met. As of December 31, 2007, the Company had $5.5 million in deferred revenue, of which $5.1 million was related to funding from collaborative partners and $0.4 million was related to product sales.

Product Revenue

The Company recognizes product revenue at the time of shipment to the customer provided all other revenue recognition criteria have been met. The Company recognizes revenue on product sales through third-party distribution agreements, if the distributor has a right of return, in accordance with the provisions set forth in

SFAS No. 48, "*Revenue Recognition When Right of Return Exists*." Under SFAS No. 48, the Company recognizes product revenues upon shipment to distributors, provided that (i) the price is substantially fixed and determinable at the time of sale; (ii) the distributor's obligation to pay the Company is not contingent upon resale of the products; (iii) title and risk of loss passes to the distributor at time of shipment; (iv) the distributor has economic substance apart from that provided by the Company; (v) the Company has no significant obligation to the distributor to bring about resale of the products; and (vi) future returns can be reasonably estimated. For any sales that do not meet all of the above criteria, revenue is deferred until all such criteria have been met.

The Company recognizes product profit-sharing revenue during the quarter in which such revenue is earned, generally upon shipment of product to the end user, based on information provided by the Company's profit-sharing partner. Profit-sharing revenue is included in product revenue in the consolidated statements of operations.

Collaborative Revenue

The Company recognizes revenue from research funding under collaboration agreements when earned on a "proportional performance" basis as research hours are incurred. The Company performs services as specified in each respective agreement on a best-efforts basis, and is reimbursed based on labor hours incurred on each contract. The Company initially defers revenue for any amounts billed or payments received in advance of the services being performed and recognizes revenue pursuant to the related pattern of performance, based on total labor hours incurred relative to total labor hours estimated under the contract.

The Company recognizes fees received to initiate research projects over the life of the project. The Company recognizes fees received for exclusivity in a field over the period of exclusivity.

The Company recognizes milestone payments when earned, as evidenced by written acknowledgement from the collaborator, provided that (i) the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement, (ii) the milestone represents the culmination of an earnings process, (iii) the milestone payment is non-refundable and (iv) the Company's past research and development services, as well as its ongoing commitment to provide research and development services under the collaboration, are charged fees that are comparable to the fees that the Company customarily charges for similar research and development services.

Grant Revenue

The Company recognizes revenue from grants as related costs are incurred, as long as such costs are within the funding limits specified by the underlying grant agreements.

Revenue Arrangements with Multiple Deliverables

The Company recognizes revenue from arrangements that contain multiple deliverables in accordance with EITF No. 00-21. This issue addresses the timing and method of revenue recognition for revenue arrangements that include the delivery of more than one product or service. In these cases, the Company recognizes revenue from each element of the arrangement as long as separate value for each element can be determined, the Company has completed its obligation to deliver or perform on that element, and collection of the resulting receivable is reasonably assured.

Research and Development

Research and development expenses, including direct and allocated expenses, consist of independent research and development costs, as well as costs associated with sponsored research and development. Research and development costs are expensed as incurred.

Cost of Product Revenue

Cost of product revenue includes both internal and third-party fixed and variable costs including materials and supplies, labor, facilities and other overhead costs associated with its product revenues. The Company expenses the cost of idle manufacturing capacity to cost of product revenue as incurred. Shipping and handling costs are included in cost of product revenue.

Share-Based Compensation

In January 2006 the Company adopted SFAS No. 123(R), "Share-*Based Payment*," which is a revision of SFAS No. 123, "*Accounting for Share-based Compensation*." SFAS No. 123(R) supersedes APB No. 25 and amends SFAS No. 95, "*Statement of Cash Flows*." Generally, the approach in SFAS No. 123(R) is similar to the approach described in SFAS No. 123. However, SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure, which has previously been used by the Company, is no longer an alternative.

The Company adopted the fair value recognition provisions of SFAS No. 123(R), using the modified prospective transition method. Under this transition method, compensation expense includes options vesting for i) share-based payments granted prior to, but not vested as of December 31, 2005, based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123; ii) share-based payments granted after December 31, 2005, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123(R); and iii) shares issued under the ESPP after December 31, 2005, based on calculations of fair value which are similar to how stock option valuations are made. Because this transition method was selected, results of prior periods have not been restated.

Prior to January 1, 2006, the Company accounted for share-based employee compensation plans using the intrinsic value method of accounting in accordance with Accounting Principles Board Opinion ("APB") No. 25, "Accounting for Stock Issued to Employees," and its related interpretations. Under the provisions of APB 25, no compensation expense was recognized with respect to purchases of the Company's common stock under the ESPP or when stock options were granted with exercise prices equal to or greater than market value on the date of grant.

Income Taxes

Current income tax expense (benefit) is the amount of income taxes expected to be payable (receivable) for the current year. A deferred income tax asset or liability is computed for the expected future impact of differences between the financial reporting and tax bases of assets and liabilities, as well as the expected future tax benefit to be derived from tax loss and credit carry-forwards. Deferred income tax expense is generally the net change during the year in the deferred income tax assets and liabilities. Valuation allowances are established unless, based upon the available evidence, it is more likely than not that the deferred tax assets will be realized. The effect of tax rate changes is reflected in income tax expense (benefit) during the period in which such changes are enacted. The Company has provided a full valuation allowance against any deferred tax assets.

Effective January 1, 2007, the Company adopted SFAS Interpretation (FIN) No. 48, "*Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109*," which clarifies the accounting for uncertainty in tax positions. FIN No. 48 requires recognition of the impact of a tax position in the Company's financial statements only if that position is more likely than not of being sustained upon examination by taxing authorities, based on the technical merits of the position. Any interest and penalties related to uncertain tax positions will be reflected in income tax expense.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources, including unrealized gains and losses on marketable securities. The Company presents comprehensive income (loss) in its Consolidated Statements of Stockholders' Equity.

Net Loss per Share

Basic and diluted net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period. The Company had 0.8 million and 1.1 million unvested restricted shares outstanding as of December 31, 2007 and 2006. Additionally, pursuant to the merger agreement with Celunol, 1.5 million shares of the Company's common stock issued to former Celunol stockholders were placed in an escrow account until June 20, 2008 to satisfy the indemnification obligations of Celunol for breaches of the representations and warranties contained in the merger agreement or any legal proceedings related thereto.

For purposes of the computation of net loss per share, the unvested restricted shares and the shares held in escrow are considered contingently returnable shares under SFAS No. 128, "*Earnings Per Share*," and are not considered outstanding common shares for purposes of computing net loss per share until all necessary conditions are met that no longer cause the shares to be contingently returnable. The impact of these unvested shares on weighted average shares outstanding has been excluded for purposes of computing net loss per share.

The following table presents the calculation of basic and diluted net loss per share (in thousands, except per share data):

	Years Ended December 31,		
	2007	2006	2005
Weighted average shares outstanding during the period	56,052	47,503	44,589
Less: Weighted average unvested restricted and merger escrow shares outstanding	(1,445)	(1,029)	(525)
Weighted average shares used in computing basic and diluted net loss per share	54,607	46,474	44,064
Net loss	$ (107,585)	$ (39,271)	$ (89,718)
Net loss per share, basic and diluted	$ (1.97)	$ (0.85)	$ (2.04)

The Company has excluded all outstanding stock options and warrants from the calculation of diluted net loss per share because all such securities are anti-dilutive for all applicable periods presented. The total number of shares excluded from the calculations of diluted net loss per share, prior to application of the treasury stock method for options and warrants, was 9.4 million, 5.0 million and 8.9 million for the years ended December 31, 2007, 2006 and 2005. Such securities, had they been dilutive, would have been included in the computation of diluted earnings per share.

Segment Reporting

Effective with the merger of Celunol in June 2007, the Company operates in two reportable segments, biofuels and specialty enzymes. Its biofuels segment is focused on developing unique technical and operational capabilities designed to enable the production and commercialization of biofuels, in particular ethanol from cellulosic biomass. Its specialty enzymes segment develops customized enzymes for use within the alternative fuels, specialty industrial processes, and animal nutrition and health markets to enable higher throughput, lower costs, and improved environmental outcomes.

In accordance with SFAS 131, "*Disclosure about Segments of an Enterprise and Related Information*," the Company provides segment financial information and results for biofuels and specialty enzymes based on total revenues, product revenue, product gross profit, total operating expenses, capital expenditures, and total identifiable assets used in management's assessment of operating performance and operating decisions. Expenses shared by the segments require the use of judgments and estimates in determining the allocation of expenses to the two segments. Different assumptions or allocations methods could result in materially different results by segment.

Reclassification

Certain reclassifications to prior period information have been made to conform to current presentation. Included in the Company's consolidated balance sheet as of December 31, 2006 was a reclassification of approximately $1.7 million from accrued expenses to accounts payable of approximately $1.5 million and accrued compensation of approximately $0.2 million to conform to current presentation. Total current liabilities were not adjusted as a result of this reclassification.

Effect of New Accounting Standards

Fair Value Accounting

In September 2006, the FASB issued SFAS No. 157, "*Fair Value Measurements.*" SFAS No. 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and expands disclosures about fair value measurements. SFAS No. 157 applies only to fair value measurements that are already required or permitted by other accounting standards. Accordingly, SFAS No. 157 does not require any new fair value measurements. SFAS No. 157 is effective for fiscal years beginning after December 15, 2007. Management is currently evaluating the impact, if any, the adoption of SFAS No. 157 will have on the Company's consolidated results of operations and financial position.

In February 2007, FASB issued SFAS No. 159, "*The Fair Value Option for Financial Assets and Financial Liabilities.*" SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. SFAS No. 159 allows entities to choose, at specified election dates, to measure eligible financial assets and liabilities at fair value that are not otherwise required to be measured at fair value. If a company elects the fair value option for an eligible item, changes in that item's fair value in subsequent reporting periods must be recognized in current earnings. SFAS No. 159 also establishes presentation and disclosure requirements designed to draw comparison between entities that elect different measurement attributes for similar assets and liabilities. Management is currently evaluating the effect, that SFAS No. 159, if adopted, will have on the Company's consolidated results of operations and financial position.

Accounting for R&D Nonrefundable Advance Payments

In June 2007, the FASB issued EITF Issue No. 07-3, "*Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities.*" EITF No. 07-3 states that

nonrefundable advance payments for goods or services that will be used for future research and development activities should be deferred and capitalized. Expense should be recognized when the goods or services are used or in the period it is determined that such goods or services will not be used. EITF No. 07-3 is effective for fiscal years beginning after December 15, 2007. Earlier application is not permitted. Management is currently evaluating the impact, if any, the adoption of EITF No. 07-3 will have on the Company's consolidated results of operations and financial position.

Business Combinations

In December 2007, the FASB issued SFAS No. 141 (revised 2007), "*Business Combinations*," which replaces SFAS No 141. The statement retains the purchase method of accounting for acquisitions, but requires a number of changes, including changes in the way assets and liabilities are recognized in the purchase accounting. It also changes the recognition of assets acquired and liabilities assumed arising from contingencies, requires the capitalization of in-process research and development at fair value, and requires the expensing of acquisition-related costs as incurred. SFAS No. 141(R) is effective for financial statements issued for fiscal years beginning after December 15, 2008 and will apply prospectively to business combinations completed on or after that date. The impact of the adoption of SFAS No. 141(R) on the Company's consolidated results of operations and cash flows will depend on the terms and timing of future acquisitions, if any.

Noncontrolling Interests in Consolidated Financial Statements

In December 2007, the FASB issued SFAS No. 160, "*Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB 51*," which changes the accounting and reporting for minority interests. Minority interests will be recharacterized as noncontrolling interests and will be reported as a component of equity separate from the parent's equity, and purchases or sales of equity interests that do not result in a change in control will be accounted for as equity transactions. In addition, net income attributable to the noncontrolling interest will be included in consolidated net income on the face of the income statement and, upon a loss of control, the interest sold, as well as any interest retained, will be recorded at fair value with any gain or loss recognized in earnings. SFAS No. 160 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and will apply prospectively, except for the presentation and disclosure requirements, which will apply retroactively. Management is currently evaluating the effect, if any, the adoption of SFAS No. 160 will have on the Company's consolidated results of operations and cash flows.

2. Merger Transaction

Completion of Merger with Celunol

On June 20, 2007, Diversa Corporation and Celunol completed their merger, and the combined company was renamed Verenium Corporation. The results of operations for Verenium Biofuels Corporation (formerly known as Celunol) have been included in the Company's consolidated financial statements since the merger closing date of June 20, 2007.

In connection with the merger, the Company issued 14.1 million shares of common stock in exchange for all of the outstanding capital stock of Celunol, and issued 0.9 million options and warrants to purchase common stock in exchange for Celunol options and warrants that were assumed by the Company. As a result of and immediately following the merger, former Celunol security holders owned approximately 24% of the Company, while former Diversa shareholders owned approximately 76%. Immediately following the merger, the Company had approximately 63 million shares outstanding.

Merger Consideration

The merger consideration was as follows (in thousands, except per share data):

Issuance of Verenium common stock to Celunol stockholders (14.1 million shares at $10.11 per share)	$ 142,900
Fair value of options for Verenium common stock issuable as consideration for outstanding vested Celunol stock options	955
Fair value of warrants for Verenium common stock issuable as consideration for outstanding Celunol warrants	3,155
Merger transaction costs	5,153
Total merger consideration	$ 152,163

The fair value of the Company's shares used in determining the purchase price was based on the average of the closing price of the Company's common stock for a range of four trading days, including two days prior to and two days subsequent to the merger announcement date of February 12, 2007, which is also the measurement as determined per the guidance in EITF No. 99-12, "*Determination of the Measurement Date for the Market Price of Acquirer Securities Issued in a Purchase Business Combination*."

The options assumed were valued at a weighted average value of $9.98 per share, and the warrants at a weighted average value of $9.06 per share, pursuant to the Black-Scholes-Merton ("BSM") valuation model. The total option value aggregated $5.1 million, of which $955,000 was attributed to vested Celunol options and accounted for as additional purchase price, and $4.1 million as non-cash compensation expense attributed to unvested Celunol options, which will be amortized to expense from the effective date of the merger over a weighted average term of 2 years.

The options and warrants were valued under the BSM valuation model using the following assumptions:

Interest rate	4.5%
Volatility	63%
Expected life	4–10 years
Expected dividend yield	—
Forfeiture rate	5%

Merger transaction costs included fees for financial advisors, accountants and attorneys and other related costs incurred by the Company in connection with the merger.

In connection with the merger, the Company entered into transitional employment and severance agreements with certain executives who resigned their positions effective with the merger. Costs related to executive severance pay include $2.3 million in cash costs for bonus and salary continuation arrangements for these executives, as well as $2.3 million in non-cash charges for adjustment or acceleration of equity-based awards, pursuant to these agreements. Both the cash and non-cash charges have been included in selling, general and administrative expenses in the accompanying consolidated statements of operations for the year ended December 31, 2007.

Purchase Price Allocation

The Celunol purchase price was allocated to tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at June 20, 2007, the date of the merger. The excess of the purchase price over the fair value of net assets acquired was allocated to goodwill.

The Company believes the fair values assigned to the assets acquired and liabilities assumed were based on reasonable assumptions. The following table summarizes the estimated fair values of net assets acquired (in thousands):

Current assets	$ 7,229
Property, plant and equipment	30,099
Other assets	983
Current liabilities	(5,972)
Other long-term liabilities	(28,710)
Net assets assumed	3,629
Acquired in-process research and development	42,400
Goodwill	106,134
Total assets acquired	$152,163

Acquired In-Process Research and Development

The Company allocated $42.4 million of the purchase price to acquired in-process research and development projects. Acquired in-process research and development ("IPR&D") represents the valuation of acquired, to-be-completed research projects. Prior to the merger, Celunol's ongoing research and development initiatives primarily involved the development of its patented and proprietary biotechnology to enable production of fuel-grade ethanol from cellulosic biomass materials. As of the merger date, pursuant to authoritative guidance under SFAS No. 2, "*Accounting for Research and Development Costs,*" these projects were not determined to have reached technological feasibility and have no alternative future use. Accordingly, the amounts allocated to those projects were expensed in the accompanying consolidated statements of operations in June 2007, the period in which the merger was consummated.

The Company considers the research projects acquired at the merger date collectively to be its "Generation 1" or "Gen 1" technology. To date, the Company has demonstrated that its Gen 1 technology can produce cellulosic ethanol at a small scale in the laboratory and pilot plant, but at yields and cost that are not yet commercially viable. The Company will require continued and substantial investment to develop its Gen 1 technology, and continues to believe that Gen 1 will produce a viable technology that will be deployed on a commercial scale as early as 2010. For the year ended December 31, 2007, the substantial portion of the Company's internal research and development personnel-related costs allocated to cellulosic ethanol process development of $5.8 million were either directly or indirectly related to the further development of its Gen 1 technology.

The values of the research projects were determined by estimating the costs to develop the acquired technology into commercially viable products, estimating the resulting net cash flows from the projects, and discounting the net cash flows to their present value. These cash flows were estimated by forecasting total revenue expected from these products and then deducting appropriate operating expenses, cash flow adjustments and contributory asset returns to establish a forecast of net cash flows arising from the acquired in-process technology. These cash flows were substantially reduced to take into account the time value of money and the risks associated with the inherent difficulties and uncertainties given the projected stage of development of these projects at closing. Due to the nature of the forecast and the risks associated with the projected growth and profitability of the developmental projects, discount rates of 40% were considered appropriate for valuation of the IPR&D. The Company believes that these discount rates were commensurate with the projects' stage of development and the uncertainties in the economic estimates described above.

If these projects are not successfully developed, the sales and profitability of the combined company may be adversely affected in future periods. The Company believes that the foregoing assumptions used in the IPR&D analysis were reasonable at the time of the acquisition. No assurance can be given, however, that the underlying assumptions used to estimate expected project sales, development costs or profitability, or the events associated with such projects, will transpire as estimated.

Goodwill

Goodwill represents the excess of the Celunol purchase price over the sum of the amounts assigned to assets acquired less liabilities assumed. The Company believes that the acquisition of Celunol will produce significant benefits, and also believes that the combined company is the first within the cellulosic ethanol industry to possess integrated end-to-end capabilities in pre-treatment, novel enzyme development, fermentation, engineering, and project development.

The Company believes that these primary factors support the amount of goodwill recognized as a result of the purchase price paid for Celunol, in relation to other acquired tangible and intangible assets.

In accordance with SFAS No. 142, the goodwill is not amortized, but will be subject to a periodic assessment for impairment by applying a fair-value-based test. None of this goodwill is expected to be deductible for tax purposes. The Company will perform annual tests for impairment of goodwill and, if indicators of impairment arise, is required to perform a periodic assessment between annual tests. The Company determined the carrying value of goodwill was not impaired.

Pro Forma Results of Operations

The following unaudited pro forma information shows the results of the Company's operations for the specified reporting periods as though the acquisition had occurred as of the beginning of that period (in thousands, except per share data):

	Year Ended December 31,	
	2007	2006
Revenue	$ 46,272	$ 49,472
Net loss	$ (74,319)	$ (47,508)
Basic and diluted net loss per share	$ (1.17)	$ (0.79)

The pro forma results have been prepared for comparative purposes only and are not necessarily indicative of the actual results of operations had the acquisition taken place as of the beginning of the periods presented, or the results that may occur in the future. The pro forma results exclude the $42.4 million non-cash acquired IPR&D charge recorded upon the closing of the merger during the second quarter of 2007.

Funding to Celunol

Pursuant to the merger agreement, the Company funded Celunol $27.5 million in cash prior to June 20, 2007 (the merger closing date), subject to the terms and conditions of a promissory note. This balance was eliminated as part of the Company's purchase accounting upon the closing of the merger.

3. Balance Sheet Details

Short-term investments consist of the following (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Market Value
December 31, 2007				
Corporate debt securities	$ 9,191	$ 48	$ (5)	$ 9,234
December 31, 2006				
Corporate debt securities	$ 12,414	$ 2	$ (66)	$ 12,350
Mortgage-backed securities	1,018	3	—	1,021
	$ 13,432	$ 5	$ (66)	$ 13,371

The estimated fair value of available for sale securities, by contractual maturity, is as follows at December 31 (in thousands):

	2007		2006	
	Amortized Cost	Market Value	Amortized Cost	Market Value
Due in one year or less	$ 4,557	$ 4,555	$ 4,453	$ 4,452
Due between one and two years	4,634	4,679	8,979	8,919
	$ 9,191	$ 9,234	$ 13,432	$ 13,371

At December 31, 2007, all of the Company's investments mature within two years with an average maturity of approximately one year.

The Company evaluates the realizable value of its short-term investments. When assessing short-term investments for other-than-temporary declines in value, the Company considers such factors as how significant the decline in value is as a percentage of the original cost and how long the market value of the investment has been below its original cost. If events and circumstances indicate that a decline in the value of these assets has occurred, and it is an other-than-temporary decline, the Company records a charge to investment income (expense). The Company has not incurred any such charges for the years ended December 31, 2007, 2006, or 2005.

Gross realized gains from the sale of cash equivalents and marketable securities were zero, $3,000 and zero, for the years ended December 31, 2007, 2006, and 2005. Gross realized losses from the sale of cash equivalents and marketable securities were $65,000, $12,000 and $140,000 for the years ended December 31, 2007, 2006, and 2005.

Accounts receivable consist of the following (in thousands):

	December 31,	
	2007	2006
Trade, net of allowance for doubtful accounts (including $113 and $299 from a related party at December 31, 2007 and 2006)	$ 7,499	$ 5,486
Grants	495	1,553
Collaborators (including $2,105 and $119 from a related party at December 31, 2007 and 2006)	3,124	1,607
	$ 11,118	$ 8,646

Inventory consists of the following (in thousands):

	December 31,	
	2007	2006
Inventory:		
Raw materials	$ 621	$ 811
Work in process	115	27
Finished goods	5,518	3,610
	6,254	4,448
Reserve	(350)	(350)
	$ 5,904	$ 4,098

Property, plant and equipment consist of the following (in thousands):

	December 31,	
	2007	2006
Laboratory equipment	$ 50,654	$ 46,311
Computer equipment	12,177	11,919
Furniture and fixtures	5,549	4,274
Leasehold improvements	9,755	7,114
Land	1,580	—
Pilot facility	17,726	—
Construction in progress, demonstration facility	45,913	—
	143,354	69,618
Accumulated depreciation, amortization and reserves:	(66,691)	(57,200)
	$ 76,663	$ 12,418

Depreciation of property, plant and equipment is provided on the straight-line method over estimated useful lives as follows:

Laboratory equipment	5 years
Computer equipment	3 years
Furniture and fixtures	5 years
Machinery and equipment	5 years
Pilot facility	10 years

Leasehold improvements are depreciated using the shorter of the estimated useful life or remaining lease term.

Accrued expenses consists of the following (in thousands):

	December 31,	
	2007	2006
Professional services and outside services	$ 2,456	$ 589
Accrued interest on convertible notes	1,649	—
Deferred rent, current portion	95	—
Other	2,665	1,872
	$ 6,865	$ 2,461

Accrued compensation consists of the following (in thousands):

	December 31,	
	2007	2006
Vacation	$ 1,173	$ 993
Other employee costs	1,455	663
Bonuses	5,450	3,249
	$ 8,078	$ 4,905

4. Significant Agreements

The Company has a number of strategic alliances and relationships, the more significant of which include the following:

Research and Development Collaborations

Syngenta

The following summarizes the Company's relationship with Syngenta AG, and its affiliates (collectively, "Syngenta"), a related party *(see Note 5, "Related Party Transactions"*):

In 1999, the Company entered into a strategic alliance with Syngenta. In conjunction with the transaction, Syngenta Biotechnology purchased 5,555,556 shares of Series E convertible preferred stock (which converted to common shares upon completion of the Company's initial public offering), paid a technology access fee, and provided project research funding to the Company, for aggregate total proceeds of $12.5 million.

Also in 1999, the Company formed a five-year strategic alliance with Syngenta. Through a contract joint venture, named Zymetrics, Inc., the Company and Syngenta jointly pursued opportunities in the field of animal feed and agricultural product processing. Under the agreement, Syngenta received exclusive, worldwide rights in the field of animal feed and project exclusive, worldwide rights in the field of agricultural product processing. Syngenta agreed to pay $20.0 million for the rights granted under the original agreement, which expired in 2004. In May 2004, the Company entered into an agreement with Syngenta that continued the development and commercialization of novel animal feed enzymes beyond the five-year initial term of the 1999 Zymetrics joint venture agreement.

During 2003, the Company completed a series of transactions with Syngenta and its wholly-owned subsidiary, the Torrey Mesa Research Institute ("TMRI"). Under the transactions, the companies formed an extensive research collaboration whereby the Company was entitled to receive a minimum of $118.0 million in

research and development funding over the initial seven-year term of the related research collaboration agreement. The Company also purchased certain property and equipment from TMRI and assumed certain miscellaneous liabilities under equipment maintenance contracts.

Upon the closing of the transactions with TMRI, the Company issued to Syngenta and TMRI a total of 6,034,983 shares of common stock and a warrant to purchase 1,293,211 shares of common stock at $22.00 per share that is exercisable for ten years starting in 2008. The total value of the acquisition was approximately $74.0 million, of which $54.9 million was allocated to certain intangible assets. In December 2005, in connection with its strategic reorganization, the Company recorded an impairment charge related to the write-down of the carrying values of assets and technologies acquired as part of the acquisition (*See Note 8, "Impairment Charges and Restructuring Activities"*).

In January 2007, the Company announced a new 10-year research and development partnership with Syngenta. The new agreement, which replaced a seven-year agreement with Syngenta that started in early 2003, is focused on the discovery and development of a range of novel enzymes to economically convert pre-treated cellulosic biomass to mixed sugars, which is a critical step in the process of biofuel production.

The prior collaboration agreement with Syngenta was a broad research and product development collaboration in which the two companies worked on various exclusive projects together across various fields. The prior agreement provided for a minimum of $118 million of research funding over the seven year research period, of which approximately $83 million was received through 2006. The prior agreement led to product candidates for the production of biofuels such as ethanol from corn, and enzymes to improve the digestibility and reduce the environmental impact of phosphorus and other nutrients naturally contained in animal feed. However, the prior agreement covered significantly more exclusive fields and applications than were ultimately being taken to the marketplace.

The Company believes that the current agreement is more focused and better aligned with each company's core strengths than the prior agreement. Under the terms of the new agreement, Syngenta has committed a minimum of $16 million in the first two years of the 10-year term to fund joint research and development activities, largely in defined areas of biofuels. In addition, the Company will be entitled to development- and commercialization-related milestone payments upon achievement of specified milestones, as well as royalties on any products that are commercialized by Syngenta. The new agreement allows the Company the freedom to operate independently in all fields, and to market and sell fermentation-based enzyme products developed either under the collaboration or by the Company independently. Syngenta retains the rights to market and sell plant-expressed, or transgenic, enzyme products developed under the collaboration in the fields of animal feed and biofuels. The Company has also licensed its existing collection of enzymes for plant expression to Syngenta within these two fields.

As a result of the restructuring of the Syngenta agreement, minimum guaranteed collaborative revenue was reduced by approximately $19.0 million, with $12.0 million of this reduction occurring in 2007.

The Company also has a manufacturing agreement with an affiliate of Syngenta to supply commercial quantities of Quantum phytase at a fixed price, determined by a negotiated formula that is subject to adjustment during the term of the agreement. In addition, the Company is entitled to receive royalties from Syngenta on sales of Quantum phytase.

Total collaborative revenue recognized under the Syngenta agreements was $9.3 million, $21.7 million, and $24.1 million for the years ended December 31, 2007, 2006, and 2005. Total Quantum phytase product revenue was $3.4 million, $1.0 million, and $0.2 million for the year ended December 31, 2007, 2006 and 2005.

Bunge Oils, Inc.

In February 2006, the Company entered into an agreement with Bunge Oils, Inc. ("Bunge"), a part of Bunge North America, to discover and develop novel enzymes optimized for the production of edible oil products with enhanced nutritional or health benefits. Under the terms of the agreement, we are responsible for discovering, optimizing, and manufacturing enzymes, and Bunge is responsible for commercializing oils using new enzyme-enabled processes. Under the terms of the agreement, the Company received an upfront technology access fee, is receiving research funding for its enzyme discovery and development activities under the project, and is also eligible to receive milestone payments for successful enzyme development activities as well as royalties on any products that are commercialized.

In November 2007, the Company entered into an agreement with Bunge to promote the commercialization of Purifine and the product development and commercialization of next-generation enzyme products for seed oil processing. Pursuant to the agreement, Bunge will supply process scale-up expertise for the development of the Purifine degumming process at plant scale. In addition, Bunge will contribute to the funding of R&D projects to develop next generation enzyme products for seed oil processing. Bunge and the Company will also share profits on sales of Purifine enzyme.

Collaborative revenue recognized under the Bunge agreements was $3.6 million, $2.2 million and $0.7 million for the years ended December 31, 2007, 2006 and 2005.

Cargill Health and Food Technologies

In 2005, the Company signed a collaboration agreement with Cargill Health and Food Technologies to discover and develop novel enzymes for the cost-effective production of a proprietary Cargill product involving multiple enzyme steps. In 2006, this collaboration agreement was expanded to include additional enzymes beyond the initial targeted set. In 2007, this agreement was further extended through May 2008. Under the terms of the agreement, the Company received upfront payments and research funding, and is entitled to receive milestone payments, license fees, and royalties on products that may be developed under the agreement.

Revenue recognized under the Cargill collaboration was $0.9 million, $1.4 million and $2.1 million for the years ended December 31, 2007, 2006 and 2005.

BASF

In December 2005, the Company entered into a master collaboration agreement with BASF under which the Company is responsible for the discovery and optimization of new enzymes, and BASF is responsible for process and product development and commercialization. Under the agreement, the Company has received technology access fees and research support payments, and is entitled to receive milestone payments and royalties based on sales of products resulting from the collaboration. Revenue recognized under the BASF agreement was $2.6 million and $2.3 million for the years ended December 31, 2007 and 2006. The Company recognized no revenue from the BASF agreement in 2005.

DuPont Bio-Based Materials

From 2003 through 2007, the Company collaborated with DuPont Bio-Based Materials ("DuPont") on the development of an integrated corn-based biorefinery ("ICBR") for the production of ethanol and other value-added chemical products from corn biomass. This multi-year program was co-funded by the U.S. Department of Energy ("DOE"). The objective under the program was to discover, optimize, and manufacture a "cocktail" of enzymes that can efficiently convert the different components of an entire corn plant, including the stalk, into simple sugars that can then be used to make ethanol and other products. In 2005, the Company announced that the performance of the enzymes developed under the ICBR program with DuPont substantially exceeded the initial targets set by the Department of Energy, and in 2007 the Company completed its work under this collaboration. DuPont has the right to exclusively license a selected number of enzymes comprising this cocktail for use in converting biomass to fuels and/or other chemicals, in exchange for the payment to the Company of up-front license fees and running royalties on sales of these enzymes on DuPont's revenues from licensing technologies to third parties that include one or more enzymes the Company may have licensed to DuPont.

Revenue recognized under the DuPont ICBR program was $0.4 million, $1.5 million and $3.0 million for the years ended December 31, 2007, 2006 and 2005.

Government Grants and Contracts

The Company has received grants and contracts from a number of government agencies, including the U.S. Department of Defense, the U.S. Department of Energy, and the National Institutes of Health. Revenue related to government grants and contracts was $2.7 million, $3.3 million, and $10.1 million for the years ended December 31, 2007, 2006, and 2005. As of December 31, 2007, the Company had approximately $4.0 million in funding committed from various government agencies through 2012.

Manufacturing, Supply and Distribution Agreements

Danisco Animal Nutrition

In May 1996, the Company entered into a collaboration agreement with Danisco Animal Nutrition (formerly Finnfeeds International Ltd) to jointly identify and develop a novel phytase enzyme that, when used as an additive in animal feed applications, allows higher utilization of phytic acid phosphates from the feed, thereby increasing its nutritional value. The addition of phytase to animal feed reduces the need for inorganic phosphorus supplementation and lowers the level of harmful phosphates that are introduced in the environment through animal waste, resulting in inorganic phosphate cost savings and a significant reduction in environmental pollution. Following the completion of the initial objectives of the agreement with Danisco, in December 1998 the Company entered into a license agreement with Danisco to commercialize an enzyme developed under the collaboration agreement. Under the terms of the license agreement, the Company granted Danisco an exclusive license to manufacture, use, and sell the developed enzyme. In consideration for the license, the Company is paid a profit share equal to 50% of the cumulative profits generated by Danisco on such sales. The Company also has a manufacturing agreement with Danisco to supply commercial quantities of Phyzyme XP at the Company's cost to manufacture such quantities. In March 2003, the FDA approved Phyzyme XP Animal Feed Enzyme, which the Company developed in collaboration with Danisco. In September 2006, the EU Commission granted permanent authorization for the use of Phyzyme XP in broiler poultry feed in Europe. Additionally, the Company entered into a manufacturing agreement with Danisco to supply commercial quantities of Phyzyme XP at the Company's cost to manufacture such quantities.

Revenue recognized from transactions with Danisco, including contract manufacturing performed on behalf of Danisco, was $16.2 million, $8.9 million, and $5.2 million for the years ended December 31, 2007, 2006, and 2005.

Bayer Animal Health

In December 2003, the Company formed a collaboration with Bayer Animal Health to develop and market products to prevent infectious diseases in fish. Under the agreement, the Company collaborated to complete the development and registration of an existing pipeline of microbially-produced vaccine candidates for aquaculture previously developed by a Bayer venture. Under the agreement, the Company was responsible for developing and manufacturing these microbially-produced vaccine candidates, which were to be marketed and distributed by Bayer in designated countries on an exclusive basis. In January 2006, pursuant to a corporate reorganization, the Company announced its intention to discontinue further investment in the development of additional vaccine candidates

The Company's single source of revenue from Bayovac® SRS, the product resulting from the collaboration, has been through a licensing and collaboration agreement with Microtek International Inc, who has been distributing this product to Bayer Animal Health, since its commercial launch in 2004. In late 2007, because of new entrants into the vaccine market and resulting pressure on pricing and margins, the Company made the strategic decision to exit the animal health vaccine market to focus on product commercialization efforts in areas that are more strategic to its current focus, namely biofuels. In connection with this decision, the Company terminated its Licensing and Collaboration Agreement with Microtek, and will discontinue sales of Bayovac® SRS after 2008.

Revenue recognized from Bayovac® SRS was $1.5 million, $3.8 million, and $1.6 million for the years ended December 31, 2007, 2006, and 2005.

License Agreements

Marubeni Corporation and Tsukishima Kikai Co., Ltd

In July 2001, the Company signed a Joint Development and Technology Transfer Agreement with the Marubeni Corporation, or Marubeni, and Tsukishima Kikai Co., Ltd., or TSK. This technology transfer agreement with Marubeni and TSK covers certain markets in Japan, Malaysia, Thailand, and Indonesia. Under this agreement, Marubeni, TSK, and their partners have built a 1.4 million liters-per-year cellulosic ethanol production facility which is currently in the start-up and commissioning, and will be the world's first plant operating commercially that will produce cellulosic ethanol from construction and demolition wood waste. This plant, in Osaka, Japan, is expected to be expanded later to produce 4 million liters-per-year of cellulosic ethanol per year. In addition, Marubeni has commenced construction on a 9.5 million gallons-per-year cellulosic ethanol facility in Thailand, and this consortium will make milestone and royalty payments to the Company for the use of its technology.

University of Florida Research Foundation, Inc.

The University of Florida Research Foundation, Inc ("UFRFI"), has granted the Company an exclusive worldwide license to use, develop and commercially exploit the UFRFI technology and any extensions and improvements of the technology for the production of ethanol. The UFRFI license expires on the later of October 2015 or the expiration of the last patent related to the UFRFI technology. Based on the latest to expire of the granted U.S. patents, the UFRFI license will extend into 2022. Pending and future patent applications related to the UFRFI technology, if granted, would extend the expiration date of the UFRFI license beyond 2026.

Xoma Ltd.

In 2003, the Company signed a license and product development agreement with Xoma Ltd., ("Xoma"). Under the terms of the agreement, the Company received a license to use Xoma's antibody expression

technology for developing antibody products independently and with collaborators, and an option to a license for the production of antibodies under the Xoma patents. The Company paid an initial license fee of $2.0 million, which was initially capitalized and was being amortized over the estimated useful life of seven years. Under the agreement, the Company may also be required to pay future milestones and royalties. As of December 31, 2005, in connection with the Company's strategic reorganization, the Company assessed the carrying value of this license on its balance sheet and determined that it was impaired. As a result, the Company has written off the carrying value of the license on its balance sheet as of December 31, 2005 *(See Note 8—Impairment Charges and Restructuring Activities*).

Terragen Discovery, Inc.

In November 1999, the Company signed a license agreement with Terragen Discovery Inc., ("Terragen") under which the Company and Terragen agreed to cross license certain technologies. Under the terms of the agreement, the Company made an initial payment to Terragen of $2.5 million in 1999 and agreed to make annual payments of $0.1 million to Terragen to maintain the patent rights over the remaining patent life. The Company capitalized the initial payment as an intangible asset, which through December 31, 2005 was amortized over the sixteen-year patent life. As of December 31, 2005, in connection with the Company's strategic reorganization, the Company assessed the carrying values of this license on its balance sheet and determined that it was impaired. As a result, the Company wrote off the carrying value of the license on its balance sheet as of December 31, 2005 *(See Note 8—Impairment Charges and Restructuring Activities*).

Other Agreements

The Company has signed various agreements with research institutions, as well as other commercial entities. Generally, these agreements call for the Company to pay research support, cost reimbursement, and, in some cases, subsequent royalty payments in the event a product is commercialized. The financial impact of these agreements on the Company is not significant.

5. Debt

Bank and Commercial Debt

The Company has entered into various equipment financing line of credit agreements with lenders to finance equipment purchases. Under the terms of the credit agreements, equipment purchases are structured as notes and are to be repaid over periods ranging from 36 to 48 months at interest rates ranging from 6.99% to 10.43%. The notes are secured by the related equipment.

On September 30, 2005, the Company entered into a $14.6 million Loan and Security Agreement (the "Bank Agreement") with a commercial bank (the "Bank"). The Bank Agreement provides for a one-year credit facility for up to $10.0 million in financing for qualified equipment purchases in the United States and Mexico (the "Equipment Advances") and a $4.6 million letter of credit sub-facility (the "Letter of Credit Sublimit"). The Bank Agreement was amended in October 2006 to increase the Letter of Credit Sublimit to $4.7 million. Borrowings under the Equipment Advances are structured as promissory notes which are secured by qualified equipment purchases and repaid over 36 to 48 months, depending on the location of the equipment financed. Borrowings will bear interest at the Bank's prime rate (8.0% at December 31, 2007) plus 0.75%. On September 30, 2006, the Company's draw-down period under the Equipment Advances expired.

The Bank Agreement contains standard affirmative and negative covenants and restrictions on actions by the Company including, but not limited to, activity related to the Company's common stock repurchases, liens,

investments, indebtedness, and fundamental changes in, or dispositions of, the Company's assets. Certain of these actions may be taken by the Company with the consent of the Bank. In addition, the Company is required to meet certain financial covenants, primarily a minimum balance of unrestricted cash, cash equivalents, and investments in marketable securities.

On February 22, 2008, the Company executed an amendment to the Bank Agreement. Pursuant to the current amendment, in exchange for the Bank's consent to the private placement of 8% senior convertible notes and warrants, the Company agreed to expand the scope of the security interest under the Bank Agreement to include substantially all of its assets excluding intellectual property. In return, the Bank modified the minimum cash covenant to reduce the required minimum liquidity from $25 million to an amount equal to 150% of the total amount of the Company's obligations to the Bank under the Bank Agreement.

At December 31, 2007, there was approximately $2.3 million in outstanding borrowings under the Equipment Advances and a letter of credit for approximately $4.7 million under the Letter of Credit Sublimit, as required under the Company's facilities leases (*See Note 7—Commitments and Contingencies*).

As of December 31, 2007 the Company was in compliance with all debt covenants under its various financing agreements.

The Bank Agreement also provides for an event of default upon the occurrence of a material adverse effect on i) the business operations, condition (financial or otherwise) or prospects of the Company, ii) the ability of the Company to repay its obligations due to the bank or otherwise perform its obligations under the Bank Agreement, or iii) the Company's interest in, or the value of, perfection or priority of the bank's security interest in the collateral. In the event of non compliance or a material adverse effect, the Company would be required to cash-secure its existing obligations under the Bank Agreement ($7.0 million at December 31, 2007).

At December 31, 2007, the Company's future minimum payments under its equipment financing arrangements are as follows (in thousands):

Year ending December 31:	
2008	$ 2,938
2009	1,096
2010	107
Total future minimum payments	4,141
Less amounts representing interest	(269)
Total future minimum principal payments	3,872
Less current portion of debt obligations	(2,712)
Non-current portion of debt obligations	$ 1,160

Convertible Debt

In March 2007, the Company completed an offering of $100 million aggregate principal amount of 5.5% Convertible Senior Notes due April 1, 2027 ("Convertible Notes") in a private placement, generating net cash proceeds to the Company of approximately $95.5 million. In April 2007, the initial purchasers exercised in full their over-allotment option to purchase an additional $20 million aggregate principal amount of Convertible Notes, generating additional net cash proceeds to the Company of approximately $19.3 million. The Convertible Notes have been registered under the Securities Act of 1933, as amended, to permit registered resale of the Convertible Notes and of the Company's common stock issuable upon conversion of the Convertible Notes.

The Convertible Notes bear interest at 5.50% per year, payable in cash semi-annually, and are convertible at the option of the holders at any time prior to maturity, redemption or repurchase into shares of the Company's common stock at an initial conversion rate of 122.5490 shares per $1,000 principal amount of Convertible Notes (subject to adjustment in certain circumstances), which represents an initial conversion price of $8.16 per share. The conversion rate of the Convertible Notes may be increased if the average price of the Company's common stock for a period ending on April 1, 2008 is less than $6.40 or in certain circumstances if a holder surrenders Convertible Notes for conversion in connection with a make-whole fundamental change that occurs before April 5, 2012.

On or after April 5, 2012, the Company may, at its option, redeem the Convertible Notes, in whole or in part, for cash at a redemption price equal to 100% of the principal amount of the Convertible Notes to be redeemed plus any accrued and unpaid interest to the redemption date. On each of April 1, 2012, April 1, 2017 and April 1, 2022, holders may require the Company to purchase all or a portion of their Convertible Notes at a purchase price in cash equal to 100% of the principal amount of the notes to be purchased plus any accrued and unpaid interest to the purchase date. Holders may also require the Company to repurchase all or a portion of their Convertible Notes upon a "fundamental change" at a repurchase price in cash equal to 100% of the principal amount of Convertible Notes to be repurchased plus any accrued and unpaid interest to the repurchase date. Pursuant to the terms of the Convertible Notes, a "fundamental change" is broadly defined as 1) a change in control or 2) a termination of trading of the Company's common stock.

In connection with the Convertible Notes offering, the Company paid $5.2 million in financing charges, of which $4.5 million is reflected in other long term assets on the accompanying balance sheet as of December 31, 2007, and is being amortized to interest expense over the initial five-year term of the Convertible Notes using the effective interest method.

As more fully described in *Note 14, "Subsequent Events,"* in February 2008 the Company completed a private placement of convertible notes and warrants, raising estimated net cash proceeds of approximately $45 million.

6. Related Party Transactions

Syngenta AG

The Company has had an ongoing research collaboration with Syngenta, a greater-than 10% owner of the Company's outstanding common stock, since 1999. (*See Note 4, "Significant Agreements"*).

The Company recognized revenue from Syngenta and its affiliates of $12.7 million, $22.7 million, and $24.3 million for the years ended December 31, 2007, 2006, and 2005. Accounts receivable due from Syngenta were $2.2 million and $0.4 million, and deferred revenue associated with Syngenta was $4.1 million and $3.1 million, at December 31, 2007 and 2006.

In connection with its research collaboration with Syngenta, the Company received $49,000 and $0.3 million in rental cost reimbursements from Syngenta during the years ended December 31, 2007 and 2006, which was recorded as a reduction in rent expense *(See Note 7, "Commitments and Contingencies"*).

7. Commitments and Contingencies

Leases

At December 31, 2007, the Company's minimum commitments under non-cancelable operating leases were as follows (in thousands):

	Gross Rental Payments	Sublease Income	Net Rental Payments
Year ending December 31:			
2008	$ 5,717	$ (775)	$ 4,942
2009	5,923	(956)	4,967
2010	6,084	(986)	5,098
2011	6,356	(1,023)	5,333
2012	6,537	(1,060)	5,477
Thereafter	22,076	(2,422)	19,654
Total minimum lease payments	$ 52,693	$ (7,222)	$ 45,471

The Company's executive offices are currently located in a 21,000 square foot building in Cambridge, Massachusetts leased through December 2013. The Company's research and development facilities are currently located in adjacent 75,000 and 61,000 square foot buildings in San Diego, California. The facilities are leased through November 2015 and March 2017, respectively. In October 2007 the Company entered into a sublease agreement with a subtenant to occupy approximately 52,000 square feet of its 61,000 square-foot facility commencing March 1, 2008. The sublease agreement expires in February 2015.

For the years ended December 31, 2007, 2006, and 2005, rent and administrative service expense under operating leases was approximately $4.5 million, $3.9 million, and $4.6 million, net of rental income and restructuring charges. As more fully described in *Note 8, "Impairment and Restructuring Activities*," the Company recorded a restructuring charge and related restructuring liability based on space vacated in its 61,000 square foot facility during 2006. During 2007, approximately 75% of this space was idle. Accordingly, the rent payments of approximately $1.6 million related to the idle space are not included in rent expense, but rather recorded against the restructuring reserve as paid.

During 2007, 2006 and 2005, the Company received $49,000, $0.3 million and $0.5 million of rent reimbursement from Syngenta, a related party (*See Note 6, "Related Party Transactions"*).

Letter of Credit

Pursuant to its facilities leases for office and laboratory space in San Diego, the Company is required to maintain a letter of credit on behalf of its landlord in lieu of a cash deposit. The total amount required under the letter of credit is based on minimum required working capital and market capitalization, as follows

Working Capital		Market Capitalization	Required Letter of Credit
Greater than $75 million		N/A	$100,000
$50 million to $75 million	or	$350 million	$100,000 plus 12 months' rent
Less than $50 million	and	Less than $350 million	$100,000 plus 24 months' rent

As of December 31, 2007, the Company has an unsecured letter of credit in place pursuant to this agreement for approximately $4.7 million, representing the $100,000 minimum and approximately 12 months' current rent.

The letter of credit is issued under an existing Bank Agreement as described in *Note 5, "Debt*." Any increases to the letter of credit resulting from increases in rent or changes in working capital or market capitalization are effective upon notice to the Company by the landlord. As of December 31, 2007, the Company's working capital was approximately $35 million and its market capitalization was approximately $315 million. Based on this, and pursuant to the lease agreement, upon notice by the landlord the Company would be required to increase its letter of credit by approximately $5 million, to approximately $9.7 million. However, upon receipt of the net cash proceeds from its debt offering in February 2008 as more fully described in *Note 14, " Subsequent Events,"* the Company's working capital increased to more than $50 million and, as a result, the required letter of credit remains at its current level.

During 2008, if the Company's market capitalization remains below $350 million and its working capital declines below $50 million, it will be obligated to increase the letter of credit to approximately $9.7 million. If the Company is unable to secure additional amounts for an unsecured letter of credit under its existing Bank Agreement, or new financing arrangements, it may be required to secure the additional obligation with cash.

Manufacturing Commitments

During 2002, the Company entered into a manufacturing agreement with Fermic, S.A. de C.V. ("Fermic"), a fermentation and synthesis plant located in Mexico City, to provide the Company with the capacity to produce commercial quantities of certain enzyme products. Based on actual and projected increased product requirements, the agreement was amended in 2004 to provide for additional capacity to be installed over the succeeding four-year period. Under the terms of the agreement, the Company can cancel the committed purchases with thirty months' notice provided that the term of the agreement, including the termination notice period, aggregates four years. Pursuant to the agreement with Fermic, the Company is also obligated to reimburse monthly costs related to manufacturing activities. These costs scale up as the projected manufacturing volume increases. As of December 31, 2007, the Company had minimum commitments to Fermic under this agreement of approximately $26.3 million over the next three years. In addition, under the terms of the agreement, the Company is required to purchase certain equipment required for fermentation and downstream processing of the products. Through December 31, 2007, the Company had incurred costs of approximately $16.1 million for equipment related to this agreement. During 2008, the Company anticipates spending as much as $2.8 million in additional equipment costs related to the manufacturing agreement. As the Company continues to develop its commercial manufacturing platforms, it will be required to purchase additional capital equipment under this agreement.

The Company relies on Fermic as its sole-source manufacturer for large volumes of commercial enzymes.

Litigation

Class Action Shareholder Lawsuit

In June 2004, the Company executed a formal settlement agreement with the plaintiffs in a class action lawsuit filed in December 2002 in a U.S. federal district court (the "Court"). This lawsuit is part of a series of related lawsuits in which similar complaints were filed by plaintiffs against hundreds of other public companies that conducted an Initial Public Offering ("IPO") of their common stock in 2000 and the late 1990's. On February 15, 2005, the Court issued a decision certifying a class action for settlement purposes and granting preliminary approval of the settlement subject to modification of certain bar orders contemplated by the settlement. On August 31, 2005, the Court reaffirmed class certification and preliminary approval of the modified settlement in a comprehensive Order. On February 24, 2006, the Court dismissed litigation filed against certain underwriters in connection with the claims to be assigned to the Plaintiffs under the settlement. On April 24,

2006, the Court held a Final Fairness Hearing to determine whether to grant final approval of the settlement. On December 5, 2006, the Second Circuit Court of Appeals vacated the lower Court's earlier decision certifying as class actions the six IPO Cases designated as "focus cases." Thereafter, the District Court ordered a stay of all proceedings in all of the IPO Cases pending the outcome of plaintiffs' petition to the Second Circuit for rehearing en banc and resolution of the class certification issue. On April 6, 2007, the Second Circuit denied plaintiffs' rehearing petition, but clarified that the plaintiffs may seek to certify a more limited class in the District Court. Accordingly, the settlement as originally negotiated will not be finally approved. On or about August 14, 2007, Plaintiffs filed amended complaints in the six focus cases, and thereafter moved for certification of the classes and appointment of lead plaintiffs and lead counsel in those cases. The six focus case issuers filed motions to dismiss the claims against them in November 2007 and an opposition to plaintiffs' motion for class certification in December 2007. Both motions are pending.

The Company is covered by a claims-made liability insurance policy which it believes will satisfy any potential liability of the Company under this settlement. Due to the inherent uncertainties of litigation and assignment of claims against the underwriters, and because the settlement has not yet been finally approved by the Court, the ultimate outcome of this matter cannot be predicted. In accordance with *SFAS No. 5*, *"Accounting for Contingencies"* the Company believes any contingent liability related to this claim is not probable or estimable and therefore no amounts have been accrued in regards to this matter.

Valley Research, inc.

On December 7, 2006, Valley Research, inc. ("VRi") filed a complaint in the San Diego Superior Court against the Company alleging damages in excess of $50,000,000 resulting from an alleged breach of contract. The complaint claims that the Company breached the parties' distribution agreement and failed to produce certain enzymes according to "industry-standard specifications," thereby resulting in VRi's inability to market and sell the product. On January 8, 2007, the Company filed its answer and a separate cross-complaint alleging breach of contract, breach of the implied covenant of good faith and fair dealing, violation of Cal. Bus. & Prof. Code sections 17200 et seq., indemnification, and declaratory relief. The Company's claims are based on VRi's failure to pay outstanding invoices, failure to meet certain minimum sales requirements in the distribution agreement, and indemnification based on a breach of VRi's representations and warranties. VRi answered the cross-complaint on February 21, 2007. On July 10, 2007, Valley filed a First Amended Complaint alleging various claims, including breach of contract, fraud, intentional and negligent interference with contract, and trade secret misappropriation and alleging the existence of a partnership. On July 18, 2007, the Company filed a First Amended Cross-Complaint identifying Verenium Corporation as the successor in interest to Diversa Corporation, and on July 19, 2007, the Company removed VRi's lawsuit to the United States District Court for the Southern District of California based on diversity jurisdiction. The federal court granted VRi's motion to remand back to the state court on December 17, 2007. On January 31, 2008, the Company challenged the First Amended Complaint by way of demurrer, which will be heard on March 21, 2008. On February 15, 2008, the parties attended a case management conference where the Superior Court judge set a trial date of January 17, 2009.

The Company anticipates filing a Second Amended Cross-Complaint that will include additional causes of action against VRi, pled in the alternative, to recover its costs associated with the alleged partnership and for breaches of fiduciary duties arising from the alleged partnership.

The Company intends to defend itself vigorously against these claims, and, believes any contingent losses related to these claims would not be material.

Patent Interference Proceeding

In February 2007, an interference proceeding was declared in the U.S. Patent and Trademark Office between a U.S. patent assigned to the Company and a pending U.S. patent application owned by Maxygen, with allowable claims directed to the Company's trademarked GeneReassembly technology. On February 25, 2008 the Board of Patent Appeals and Interferences ruled in favor of Maxygen and the claims in the Company's issued patent were cancelled. The Company is evaluating this ruling to determine whether an appeal might be appropriate; however, the Company does not believe that this ruling will have a material impact on its consolidated financial position, results of operations, or cash flows.

The Company is also, from time to time, subject to legal proceedings and claims which arise in the normal course of business. In management's opinion, the amount of ultimate liability with respect to these actions will not have a material adverse effect on the Company's consolidated financial position, results of operations, or cash flows.

8. Impairment Charges and Restructuring Activities

During 2005, the Company recorded a $45.7 million impairment charge for activities resulting from management's strategic decision to reorganize and refocus the Company's resources to advance its most promising product candidates and programs that have the greatest near-term opportunities, and discontinued development of a number products and programs, primarily related to fine chemicals, animal health, therapeutic antibody optimization, and small molecule drug discovery. The Company wrote-off the carrying values of tangible and intangible assets considered non-essential to the Company's current focus, or otherwise deemed impaired under the provisions set forth by SFAS No. 144, "*Accounting for the Impairment or Disposal of Long-Lived Assets*."

These charges are summarized below (in thousands):

	Year Ended December 31, 2005
Write-off of intangible assets acquired in connection with fiscal 2003 transactions with Syngenta	$ 40,622
Excess or idle equipment costs	2,237
Write-off of intellectual property licenses	2,886
Total	$ 45,745

In connection with the January 2006 decision to reorganize and refocus the Company's resources, management commenced several cost containment measures, including a reduction in workforce of 83 employees and the consolidation of its facilities. Pursuant to SFAS No. 146, *"Accounting for Costs Associated with Exit or Disposal Activities,"* the Company recorded net charges of $12.0 million in 2006 related to these activities.

During the first quarter of 2006, the Company completed the employee termination activities under this restructuring and no further payments or expenses related to employee separation are anticipated under this program. The facility consolidation costs were based on estimates, representing the discounted cash flow of lease payments (net of anticipated sublease income) on the vacated space through its contractual lease term in 2016.

During the fourth quarter of 2007, the Company recorded $1.5 million of additional charges, reflecting revisions in its estimate for the remaining net facilities consolidation costs upon executing a sublease agreement with a subtenant.

Pursuant to SFAS No. 146 the Company is required to re-assess these estimates on a periodic basis. Accordingly, the Company may revise these estimates in future periods, which could give rise to additional charges or adjustments.

The following table sets forth the activity in the restructuring reserves for the years ended December 31 2007 and 2006 (in thousands):

	Facility Consolidation Costs	Employee Separation Costs	Other Costs	Total
Balance at January 1, 2006	$ —	$ —	$ —	$ —
Accrued and expensed	8,356	2,607	60	11,023
Charged against accrual	(1,563)	(2,607)	(60)	(4,230)
Adjustments and revisions	1,003	—	—	1,003
Balance at December 31, 2006	$ 7,796	$ —	$ —	$ 7,796
Charged against accrual	(2,263)	—	—	(2,263)
Adjustments and revisions	1,481	—	—	1,481
Balance at December 31, 2007	$ 7,014	$ —	$ —	$ 7,014

9. Segment Information and Concentration of Business Risk

Segment Information

Following the merger with Celunol on June 20, 2007, the Company consisted of two segments, as defined by SFAS No. 131, "*Disclosures about Segments of an Enterprise and Related Information,*" identified as biofuels and specialty enzymes. The biofuels segment is focused on developing unique technical and operational capabilities designed to enable the production and commercialization of biofuels, in particular ethanol from cellulosic biomass. The specialty enzymes segment develops high performance enzymes for use within the alternative fuels, specialty industrial processes, and animal nutrition and health markets to enable higher throughput, lower costs, and improved environmental outcomes.

Management assesses performance and allocates resources based on discrete financial information for the biofuels and specialty enzymes business segments. For the biofuels segment, performance is assessed based on total operating expenses and capital expenditures. For the specialty enzymes segment, performance is assessed based on total revenues, product revenues, product gross profit and total operating expenses and capital expenditures. For the year ended December 31, 2007, the specialty enzyme segment comprised 100% of total revenues, product revenue, and cost of product revenue. Operating expenses for each segment include direct and allocated research and development and selling, general and administrative expenses. In management's evaluation of performance, certain corporate operating expenses are excluded from the business segments such as: non-cash share-based compensation, restructuring charges, severance, depreciation and amortization, write-off of acquired in-process research and development, and other corporate expenses, which are not allocated to either business segment. In addition, management evaluates segment performance based upon capital expenditures and other assets that are specifically identified to the business segment and excludes certain corporate assets like goodwill and other assets that can be attributed to, or utilized by, both business segments. Expenses and assets shared by the segments require the use of judgments and estimates in determining the allocation of expenses to the two segments. Different assumptions or allocation methods could result in materially different results by segment.

Selected operating results for each of our business segments is set forth below (in thousands):

	Year Ended December 31, 2007			
	Biofuels	Specialty Enzymes	Corporate	Total
Collaborative and grant revenue	$ —	$ 20,298	$ —	$ 20,298
Product revenue		25,975		25,975
Total revenues	$ —	$ 46,273	$ —	$ 46,273
Product gross profit	$ —	$ 6,160	$ —	$ 6,160
Acquired in-process research and development	$ —	$ —	$ 42,400	$ 42,400
Operating expenses, excluding acquired in-process research and development	$ 20,499	$ 53,480	$ 15,814	$ 89,793
Operating loss	$ (20,499)	$ (27,022)	$ (58,214)	$ (105,735)
Capital expenditures	$ 35,862	$ 2,636	$ 4,603	$ 43,101

Identifiable assets by operating segment are set forth below:

	As of December 31, 2007			
	Biofuels	Specialty Enzymes	Corporate	Total
Goodwill	$ —	$ —	$ 106,134	$ 106,134
Property, plant & equipment net	66,380	—	10,283	76,663
Other assets	1,219	16,971	63,792	81,982
Total identifiable assets	$ 67,599	$ 23,626	$ 173,554	$ 264,779

Concentrations of Business Risk

During the years ended December 31, 2007, 2006, and 2005, the Company had collaborative research agreements that accounted for 38%, 61%, and 63% of total revenue. Including revenue generated from the DuPont ICBR program (*See Note 4—Significant Agreements*), the Company derived, directly or indirectly, approximately 7%, 10%, and 24%, of its revenue from agencies of the United States Government in 2007, 2006, and 2005.

A relatively small number of customers and collaboration partners historically have accounted for a significant percentage of the Company's revenue. Revenue from significant customers and / or collaboration partners as a percentage of total revenue was as follows:

	2007	2006	2005
Syngenta	27%	46%	45%
Danisco Animal Nutrition	35%	18%	10%

Accounts receivable from four significant customers comprised approximately 48%, 20%, 9%, and 7% of accounts receivable at December 31, 2007. Accounts receivable from four significant customers comprised approximately 27%, 22%, 12%, and 11% of accounts receivable at December 31, 2006. Accounts receivable derived directly or indirectly from agencies of the U.S. Government, including accounts receivable from DuPont (*See Note 4—Significant Agreements*), comprised 4% and 19% of total accounts receivable at December 31, 2007 and 2006.

Revenue by geographic area was as follows (in thousands):

	For the years ended December 31,		
	2007	2006	2005
North America	$ 15,284	$ 13,593	$ 20,119
South America	1,458	3,806	1,583
Europe	29,214	31,783	32,001
Asia	225	16	600
Middle East	92	—	—
	$ 46,273	$ 49,198	$ 54,303

For the years ended December 31, 2007, 2006 and 2005, 84%, 87% and 81% of the Company's product revenue has come from one focus area, animal nutrition and health.

10. Stockholders' Equity

Shareholder Rights Plan

On December 13, 2000, the Board of Directors of the Company approved the adoption of a shareholder rights plan (the "Rights Plan"). Under the Rights Plan, the Board of Directors declared a dividend of one right to purchase one one-hundredth of a share of Series A junior participating preferred stock (a "Right") for each share of Company common stock outstanding as of December 22, 2000. The exercise price of each Right is $125.00.

Initially, the Rights trade with the Company's common stock and are not separately transferable. However, subject to certain exceptions, the Rights will become exercisable (i) at such time that a person (or group of affiliated persons) acquires beneficial ownership of 15% or more of the Company's outstanding common stock (an "Acquiring Person") or (ii) on the tenth business day after a person or entity commences, or expresses an intention to commence, a tender or exchange offer that would result in such person acquiring 15% or more of the outstanding Company common stock. In December 2002, in connection with the Company's entering into a series of agreements with Syngenta and Torrey Mesa Research Institute, the Company amended the Rights Plan to provide that, with respect to Syngenta and its affiliates and associates, the threshold will be 22% rather than 15% for the aggregate beneficial ownership of the Company's common stock that their holdings may not exceed without the Rights becoming exercisable.

In the event a person becomes an Acquiring Person, each Right held by all persons other than the Acquiring Person will become the right to acquire one share of Company common stock at a price equal to 50% of the then-current market value of the Company's common stock. Furthermore, in the event an Acquiring Person effects a merger of the Company, each Right will entitle the holder thereof to purchase one share of common stock of the Acquiring Person or the Acquiring Person's ultimate parent at a price equal to 50% of the then-current market value of the Acquiring Person's or the Acquiring Person's ultimate parent's common stock.

The Board of Directors can redeem the Rights at any time prior to a person becoming an Acquiring Person at a redemption price of $0.01 per Right. In addition, the Board of Directors may, after any time a person becomes an Acquiring Person, exchange each Right for one share of common stock of the Company. The Rights will expire on December 12, 2010 if not redeemed prior to such date.

11. Equity Incentive Plans and Warrants

Equity Incentive Plans

Celunol Equity Incentive Plan

As a part of the merger on June 20, 2007, each outstanding and unexercised option to purchase shares of Celunol common stock, whether vested or unvested, was assumed by Verenium and became an option to acquire shares of Verenium common stock, under the same terms and conditions that existed in the Celunol plan prior to the merger. Options granted under this plan generally vest over a four year period and expire 10 years from the date of the grant. The number of shares of Celunol common stock that was subject to each option prior to the effective time was converted into Verenium common stock based on the exchange ratio determined pursuant to the merger agreement. The Company's stockholders approved the Celunol Equity Incentive Plan on June 20, 2007. A total of 507,000 shares of Verenium common stock are reserved for issuance under the Celunol Equity Incentive Plan.

2007 Equity Incentive Plan

In March 2007, the Board of Directors adopted the 2007 Equity Incentive Plan (the "2007 Plan"), and effective May 7, 2007, amended the 2007 Plan. The 2007 Equity Incentive Plan is the successor to the Diversa Corporation 1997 Equity Incentive Plan (the "1997 Plan"). The 2007 Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights, performance stock awards, performance cash awards and other forms of equity compensation. Stock awards granted under this plan generally vest over a four year period and expire 10 years from the date of the grant. The Company's stockholders approved the 2007 Plan, as amended, on June 20, 2007. A total of 9,750,000 shares are reserved for issuance under the 2007 Plan.

2005 Non-Employee Directors' Equity Incentive Plan

In March 2005, the Board of Directors of the Company ("Board") adopted the Company's 2005 Non-Employee Directors' Equity Incentive Plan ("Directors' Plan"), and reserved a total of 600,000 shares for issuance thereunder. The number of shares available for issuance under the Directors' Plan will automatically increase on the first trading day of each calendar year, beginning with the 2006 calendar year and continuing through and including calendar year 2015, by an amount equal to the excess of (i) the number of shares subject to stock awards granted during the preceding calendar year, over (ii) the number of shares added back to the share reserve during the preceding calendar year pursuant to expirations, terminations, cancellations forfeitures and repurchases of previously granted awards. However this automatic annual increase shall not exceed 250,000 shares in any calendar year. As of December 31, 2007, a total of 966,000 shares of the Company's common stock have been reserved for issuance under the Directors' Plan.

The Board adopted the Directors' Plan as the primary equity incentive program for the Company's non-employee directors in order to secure and retain the services of such individuals, and to provide incentives for such persons to exert maximum efforts for the success of the Company. Stock awards granted under this plan generally vest monthly over a three year period and expire 10 years from the date of the grant. The Directors' Plan replaced the 1999 Non-Employee Directors' Stock Option Plan. As of December 31, 2007, there were approximately 540,000 shares outstanding under the Directors' Plan and approximately 312,000 shares outstanding under the 1999 Non-Employee Directors' Stock Option Plan.

Employee Stock Option and Stock Purchase Plans

1999 Employee Stock Purchase Plan

In December 1999, the Board of Directors adopted the 1999 Employee Stock Purchase Plan (the "Purchase Plan"). As of December 31, 2007, a total of 3,631,000 shares of the Company's common stock have been reserved for issuance under the Purchase Plan. The Purchase Plan permits eligible employees to purchase common stock at a discount, but only through payroll deductions, during defined offering periods. The price at which stock is purchased under the Purchase Plan is equal to 85% of the fair market value of the common stock on the first or last day of the offering period, whichever is lower. The Purchase Plan provides for annual increases of shares available for issuance under the Purchase Plan.

1997 Equity Incentive Plan

In August 1997, the Company adopted the 1997 Equity Incentive Plan (the "1997 Plan"), which provides for the granting of incentive or non-statutory stock options, stock bonuses, and rights to purchase restricted stock to employees, directors, and consultants as administered by the Board of Directors. The 1997 Plan was terminated by the Board of Directors at the time of the merger on June 20, 2007.

The incentive and non-statutory stock options are granted with an exercise price of not less than 100% and 85%, respectively, of the estimated fair value of the underlying common stock as determined by the Board of Directors. The 1997 Plan allows the purchase of restricted stock at a price that is not less than 85% of the estimated fair value of the Company's common stock as determined by the Board of Directors.

Options granted under the 1997 Plan vest over periods ranging up to four years and are exercisable over periods not exceeding ten years. As of December 31, 2007, the aggregate number of shares awarded under the 1997 Plan is approximately 14,220,000, with no shares available for grant.

Share-Based Compensation Expense

The Company recognized $11.0 million, $5.7 million and $0.9 million in share-based compensation expense for its share-based awards for years ended December 31, 2007, 2006 and 2005. These charges had no impact on the Company's reported cash flows. Share-based compensation expense was allocated among the following expense categories (in thousands):

	For the Years Ended December 31,		
	2007	2006	2005
Research and development	$ 3,669	$ 3,611	$ 476
Selling, general and administrative	7,297	2,079	401
	$ 10,966	$ 5,690	$ 877

During 2005, the Company issued approximately 726,000 shares of restricted stock to employees and, pursuant to SFAS No. 123, recorded net expense of $0.8 million related to the amortization of share-based compensation during the year ended December 31, 2005. The Company also recorded a non-cash share-based compensation charge of approximately $0.1 million during the fourth quarter of 2005 related to the acceleration of vesting on approximately 28,000 restricted shares granted to its former Chief Executive Officer. Under the modified prospective method of transition under SFAS No. 123(R), the Company is not required to restate its prior period financial statements to reflect expensing of share-based compensation under the new standard. Therefore, the results for the year ended December 31, 2005 are not comparable to 2006 and 2007.

During 2007, the Company recorded approximately $1.3 million of share-based compensation expense related to the acceleration of vesting for approximately 319,000 shares of restricted stock for five former executives in connection with separation agreements relating to the merger with Celunol. Additionally, as part of the separation agreements with the former Chief Executive Officer and Chief Financial Officer, the Company recorded approximately $1.0 million of share based compensation related to the issuance of 261,000 shares of fully vested restricted stock in exchange for approximately 500,000 of unexercised stock options. The Company also recorded $0.1 million of share-based compensation expense during fiscal 2007 related to the modification of 376,000 stock options granted to its new Chief Executive Officer

The Company has determined its share-based compensation expense under SFAS No. 123(R) for the years ended December 31, 2007 and 2006 as follows:

Valuation of Stock Options

Share-based compensation related to stock options includes the amortization of the fair value of options granted prior to January 1, 2006 as well as the amortization of the fair value of options granted after December 31, 2005; both determined using the multiple option approach under the BSM valuation model. The fair value of options determined under SFAS No. 123(R) is amortized to expense over the vesting periods of the underlying options, generally four years.

The fair value of stock option awards for the years ended December 31, 2007 and 2006 was estimated on the date of grant using the assumptions in the following table. The expected volatility in this model is based on the historical volatility of the Company's stock. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time awards are granted, based on maturities which approximate the expected life of the options. The expected life of the options granted is estimated using the historical exercise behavior of employees. The expected dividend rate takes into account the absence of any historical dividends paid by the Company and management's intention to retain all earnings for future operations and expansion.

	December 31,	
	2007	2006
Risk-free interest rate	3.6% to 5.0%	4.5%
Dividend Yield	0%	0%
Volatility	61% to 64%	61%
Expected Life	5 years	5 years

Valuation of ESPP Awards

Share-based compensation related to awards issued under the ESPP after December 31, 2005 are based on calculations of fair value under the BSM valuation model which are similar to how stock option valuations are made. The fair value of ESPP awards determined under SFAS No. 123(R) is amortized to expense over the vesting periods of the underlying awards, ranging from six months to two years. The fair value was based on the following assumptions for the years ended:

	December 31,	
	2007	2006
Risk-free interest rate	3.7% to 4.4%	3.7%
Dividend Yield	0%	0%
Volatility	53% to 63%	53%
Expected Life	6 months to 2 years	6 months to 2 years

Valuation of Non-Restricted and Restricted Stock Awards

The fair value of non-restricted and restricted stock awards is equal to the closing market price of the Company's common stock at the date of grant. The fair value of non-restricted awards is charged to share-based compensation upon grant. The fair value of restricted awards is amortized to share-based compensation expense over the vesting period of the underlying awards, ranging from two years to four years.

Forfeiture Rate for Options and Restricted Stock Awards

The Company is required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods on a cumulative basis in the period the estimated forfeiture rate changes for all share-based awards. The Company considers its historical experience of pre-vesting option forfeitures as the basis to arrive at its estimated pre-vesting option forfeiture rate. A 5% forfeiture rate was used for the first three quarters of 2007 but was increased to 10% in the fourth quarter of 2007 for all share-based awards as a result of the merger and a study of peer companies in the specialty enzyme and biofuels industries.

Unrecognized Share-Based Compensation Expense

As of December 31, 2007, there was approximately $17.9 million of total unrecognized compensation expense related to nonvested share-based compensation arrangements granted under the equity incentive plans. This expense is expected to be recognized over a weighted-average period of 1.6 years as follows:

Fiscal Year 2008	$10,169
Fiscal Year 2009	4,005
Fiscal Year 2010	2,115
Fiscal Year 2011	1,222
Fiscal Year 2012	391
	$17,902

During the fourth quarter of fiscal 2005, the Company accelerated the vesting of unvested stock options awarded to all employees and officers under its stock option plans that had exercise prices greater than $10.00. The unvested options to purchase approximately 710,000 shares became fully vested as of December 8, 2005 as a result of the acceleration. These stock options would have all become fully vested before or during 2008. The Company accelerated these options because the options had exercise prices significantly in excess of the then current market value ($5.25 at December 8, 2005), and thus were not fully achieving their original objectives of incentive compensation and employee retention. The acceleration eliminated future compensation expense that would have been recognized in the statements of operations with respect to these options with the implementation of SFAS No. 123(R). The future expense eliminated as a result of the acceleration of the vesting of these options was approximately $1.1 million.

Prior Year Pro Forma Disclosure of Share-Based Compensation Expense

Had the Company determined compensation expense based on fair value in accordance with SFAS No. 123, "*Accounting for Stock Based Compensation*," net loss and net loss per common share would have been as follows:

	Year Ended December 31, 2005
Net loss as reported	$ (89,718)
Add: Stock-based compensation expense included in reported net loss	877
Deduct: Total stock-based compensation expense determined under fair value based method for all awards	(7,531)
Pro forma net loss	$ (96,372)
Basic and diluted net loss per share, as reported	$ (2.04)
Pro forma basic and diluted net loss per share	$ (2.19)

Equity Incentive Awards Activity

Stock Options

Information with respect to all of the Company's stock option plans is as follows (in thousands, except per share data):

	Shares	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2005	8,462	$ 10.45		
Granted	658	$ 6.58		
Exercised	(366)	$ 2.34		
Cancelled	(1,215)	$ 11.51		
Outstanding at December 31, 2005	7,539	$ 10.34		
Granted	220	$ 9.12		
Exercised	(2,006)	$ 4.78		
Cancelled	(2,096)	$ 13.32		
Outstanding at December 31, 2006	3,657	$ 11.60		
Granted	4,783	$ 6.07		
Assumed in merger with Celunol Corp.	507	$ 5.94		
Exercised	(99)	$ 4.55		
Cancelled	(1,134)	$ 8.79		
Outstanding at December 31, 2007	7,714	$ 8.30	7.8	$ 2,636
Exercisable at December 31, 2007	2,611	$ 13.28	4.6	$ 726

The weighted-average estimated fair values of options granted, as determined by the BSM valuation model under FAS 123R, were $4.27 and $4.83 per share for the years ended December 31, 2007 and 2006, respectively. The total intrinsic value of options exercised during the years ended December 31, 2007, 2006 and 2005 was $0.4 million, $7.4 million and $1.2 million, respectively, which was determined as of the date of exercise. The amount of cash received from the exercise of stock options was $0.5 million, $9.6 million and $0.9 million for the years ended December 31, 2007, 2006 and 2005, respectively.

At December 31, 2007, options to purchase 2.6 million shares with an aggregate intrinsic value of approximately $0.7 million were exercisable, and approximately 5.6 million shares remain available for grant. At December 31, 2006, options to purchase 3.1 million shares with an aggregate intrinsic value of approximately $4.7 million were exercisable, and approximately 4.6 million shares remained available for grant.

A further detail of the options outstanding as of December 31, 2007 is set forth as follows (in thousands, except per share data):

Range of Exercise Prices	Options Outstanding	Weighted Average Remaining Life in Years	Weighted Average Exercise Price per Outstanding Share	Options Exercisable	Weighted Average Exercise Price per Exercisable Share
$0.06 – $ 5.04	2,087	9.2	$ 3.75	270	$ 2.30
$5.05 – $ 6.53	341	7.9	$ 5.51	123	$ 5.66
$6.61 – $ 6.61	1,571	9.6	$ 6.61	—	$ —
$6.63 – $ 7.76	1,564	8.9	$ 6.92	223	$ 7.56
$7.79 – $6,552.00	2,151	4.3	$ 15.40	1,995	$ 15.88
$0.06 – $6,552.00	7,714	7.8	$ 8.30	2,611	$ 13.28

Non-Restricted and Restricted Share Awards

Information with respect to all of the Company's non-restricted and restricted share awards is as follows (in thousands, except per share data):

	Shares	Weighted Average Fair Value
Non-vested awards outstanding at January 1, 2005	—	$ —
Granted	726	$ 6.59
Vested	(28)	$ 7.00
Forfeited and cancelled	(138)	$ 7.00
Non-vested awards outstanding at December 31, 2005	560	$ 6.47
Granted	1,036	$ 6.44
Vested	(315)	$ 6.85
Forfeited and cancelled	(163)	$ 6.61
Non-vested awards outstanding at December 31, 2006	1,118	$ 6.31
Granted	387	$ 7.23
Assumed in merger with Celunol Corp	216	$ 10.11
Vested	(870)	$ 6.91
Forfeited and cancelled	(100)	$ 6.57
Non-vested awards outstanding at December 31, 2007	751	$ 7.29

Warrants

In connection with the closing of a series of transactions with Syngenta Participations AG in February 2003, the Company issued to Syngenta a warrant to purchase 1.3 million shares of common stock at $22 per share that is exercisable for ten years starting in 2008.

In connection with the completion of the merger transaction with Celunol, as more fully described in Note 2, "*Merger Transaction,*" the Company assumed the following warrants to purchase common stock:

Shares	Exercise Price Per Share	Expiration
67	$ 5.93	February 2011
84	$ 5,484.41	March 2011
6,062	$ 68.66	December 2014
1,687	$ 68.66	August 2015
340,248	$ 1.87	December 2016
348,148		

Common Stock Reserved for Future Issuance

At December 31, 2007, the Company has reserved shares of common stock for future issuance as follows (in thousands):

	Shares
Employee Stock Purchase Plan	1,792
Equity Incentive Plans	5,589
Warrants	1,641
	9,022

12. Benefit Plan

The Company has a 401(k) plan which allows participants to defer a portion of their income through contributions. Such deferrals are fully vested and are not taxable to the participant until distributed from the plan upon termination, retirement, permanent disability, or death. The Company matches a portion of the employee contributions and may, at its discretion, make additional contributions. The Company made cash contributions of approximately $0.8 million, $0.4 million and $0.7 million for the years ended December 31, 2007, 2006 and 2005.

13. Income Taxes

The reconciliation of income tax computed at the Federal statutory tax rate to the benefit for income taxes is as follows (in thousands):

	December 31,		
	2007	2006	2005
Tax at statutory rate	$ (37,655)	$ (13,744)	$ (31,401)
State taxes, net of Federal benefit	(6,182)	(2,256)	(5,155)
In-process research and development	17,278	—	—
Change in valuation allowance	19,476	12,044	35,953
Write-off of research and development credits	5,058	—	—
SFAS 123R ISO expense	2,474	1,155	—
Permanent differences & other	(449)	2,801	603
	$ —	$ —	$ —

On July 13, 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes—An Interpretation of FASB Statement No. 109* ("FIN 48"), which clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements in accordance with SFAS No. 109, *Accounting for Income Taxes*, and prescribes a recognition threshold and measurement attributes for financial statement disclosure of tax positions taken or expected to be taken on a tax return. Under FIN 48, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely–than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Additionally, FIN 48 provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006.

The Company adopted the provisions of FIN 48 on January 1, 2007, and has commenced analyzing filing positions in all of the federal and state jurisdictions where it is required to file income tax returns, as well as all open tax years in these jurisdictions. As a result of adoption, the Company has recorded no additional tax liability. As of December 31, 2007 the Company has not yet completed its analysis of the deferred tax assets for net operating losses of $91.9 million and research and development credits of $2.7 million generated in years prior to 2007 and net operating losses of $27.6 million and research and development credits of $0.2 generated in 2007. As such, these amounts and the offsetting valuation allowance have been removed from the Company's deferred tax assets. As noted below, the Company is in the process of completing a Section 382 analysis regarding the potential limitations on the use of the net operating loss and research and development credits.

The Company is subject to taxation in the U.S. and state jurisdictions. The Company's tax years for 1996 and forward are subject to examination by the U.S. and California tax authorities due to the carryforward of unutilized net operating losses and research and development credits. The Company is currently not under examination by any taxing authorities.

The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. During the twelve months ended December 31, 2007, the Company did not recognize any interest or penalties. Upon adoption of FIN 48 on January 1, 2007, the Company did not record any interest or penalties.

The adoption of FIN 48 did not impact the Company's financial condition, results of operations or cash flows. At December 31, 2007, the Company had deferred tax assets of $36.9 million. These deferred tax assets are primarily composed of deprecation and amortization, capitalized research and development costs, deferred revenue and stock compensation expense. Due to uncertainties surrounding the Company's ability to generate future taxable income to realize these assets, a full valuation has been established to offset the net deferred tax asset. Additionally, the future utilization of the company's net operating loss and research and development credit carryforwards to offset future taxable income may be subject to an annual limitation as a result of ownership changes that may have occurred previously or that could occur in the future. The Company has not yet determined whether such an ownership change has occurred; however the Company is in the process of completing a Section 382 analysis regarding the limitation of the net operating loss and research and development credits. Until this analysis has been completed the Company has removed the deferred tax assets associated with these carryforwards from its deferred tax asset schedule and has recorded a corresponding decrease to their valuation allowance. When the Section 382 analysis is completed, the Company plans to update its unrecognized tax benefits under FIN 48. The Company expects the Section 382 analysis to be completed within the next twelve months.

Significant components of the Company's deferred tax assets are shown below. A valuation allowance of $36.9 million and $128.9 million has been recognized to offset the deferred tax assets at December 31, 2007 and 2006 as realization of such assets is uncertain.

The following table sets forth the detail of the Company's deferred taxes (in thousands):

	As of December 31,	
	2007	2006
Deferred tax assets:		
Net operating loss carryforwards	$ —	$ 82,316
Federal and state tax credits	—	8,298
Deferred revenue	2,232	2,517
Depreciation and amortization	22,106	22,347
Allowance and accrued liabilities	6,006	3,421
Stock option expense	886	1,164
Capitalized research and development	5,689	8,855
Total deferred tax assets	36,919	128,918
Valuation allowance	(36,919)	(128,918)
Net deferred tax assets	$ —	$ —

At December 31, 2007, the Company has federal and state net operating loss carry-forwards of approximately $315.6 million and $158.0 million, respectively, which includes $21.1 million and $9.3 million, respectively, from Celunol pre-merger financial results which are currently under evaluation by the Company to determine if these credits can ever be realized. The federal net operating loss carry-forwards will begin to expire in 2011 unless utilized. The state net operating loss carry-forwards will begin to expire in 2008 unless utilized. The Company also has federal research credits of approximately $1.8 million which begin to expire in 2011, California research credits of approximately $1.7 million which will carryover indefinitely, and California manufacturer's investment credits of approximately $0.7 million, which will begin to expire in 2010.

Pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the Company's net operating loss and credit carry-forwards may be limited due to cumulative changes in ownership of more than 50%.

As a result of the adoption of SFAS 123R, the company recognizes windfall tax benefits associated with the exercise of stock options directly to stockholders' equity only when realized. Accordingly, deferred tax assets are not recognized for net operating loss carryforwards resulting from windfall tax benefits occurring from January 1, 2006 onward. At December 31, 2007, deferred tax assets do not include $2.5 million of excess tax benefits from share based compensation.

14. Subsequent Events

2008 Convertible Notes Offering

On February 22, 2008, the Company completed a private placement of 8% senior convertible notes due April 1, 2012 and warrants to purchase its common stock. Concurrently with entering into the purchase agreement, the Company also entered into senior notes exchange agreements with certain existing noteholders of the 5.5% convertible senior notes pursuant to which such noteholders exchanged approximately $18.5 million in aggregate principal amount of the 5.5% convertible senior notes for approximately $16.7 million in aggregate principal amount of the 8% senior convertible notes and for warrants to purchase common stock. Including the 8% convertible senior notes to be issued in exchange for the 5.5% convertible senior notes, the Company issued $71 million in aggregate principal amount of the 8% senior convertible notes and warrants to purchase approximately 8 million shares of common stock. Gross proceeds from new investment were approximately $54

million and net proceeds from new investment, after giving effect to payment of certain transaction-related expenses and the cash cost of the convertible hedge transaction described below, were approximately $45 million.

The 8% senior convertible notes will be convertible on the date of their issuance. Their initial conversion price will be equal to $4.09 per share. The conversion price will be subject to full ratchet anti-dilution protection and a reset provision whereby, to the extent the volume weighted average price of the Company's common stock during the seven trading days prior to the one-year anniversary of the issuance of the 8% convertible senior notes is less than $3.55 per share, the conversion price will reset to the greater of $2.13 per share or 115% of the volume weighted average price of the common stock at that time.

The 8% convertible senior notes are subject to automatic conversion at the Company's option if the Company's closing stock price exceeds $8.18 per share over a 30-trading day period ending prior to the date the Company provides notice of the automatic conversion to investors, the average daily trading volume of its stock over that 30-trading day period equals or exceeds $3 million, and certain other conditions are met.

The warrants are exercisable six months after their issuance. The initial exercise price of the warrants will be $4.44 per share. The exercise price will be subject to weighted average anti-dilution protection.

In connection with the transactions described above, the Company entered into a convertible hedge transaction, which is intended to reduce the potential dilution upon conversion of the 8% senior convertible notes. The convertible hedge transaction is composed of two separate call options. Under the first call option, on April 1, 2012 (or earlier upon conversion of the 8% senior convertible notes), the Company will be entitled to purchase 13,288,509 shares of its own common stock from the counterparty at a price per share equal to the initial conversion price (or a proportion of such number of shares based on the proportion of the 8% senior convertible notes being converted). Under the second call option, on three exercise dates staggered in six month intervals beginning on October 1, 2013, the counterparty will be entitled to purchase 13,288,509 shares of the Company's common stock at a price per share of $5.16. The cash cost of the convertible hedge transaction was approximately $6.2 million

Periodic interest payments on the 8% senior convertible notes will total $1.4 million every three months, assuming an outstanding balance of $71.0 million, and will be payable on January 1, April 1, July 1 and October 1, of each year. Subject to the satisfaction of certain conditions, interest payments on the 8% senior convertible notes may be made, at the Company's option, in shares of common stock, valued at a 5% discount to the stock price at the time of payment of the interest

In the event that the Company does not receive shareholder approval for issuances of shares beyond 19.9% of the number of the Company's issued and outstanding shares as of February 22, 2008, any required share issuances under the 8% senior convertible notes and warranted in excess of that amount will be cash settled in an amount per share equal to the closing sales price of the Company's common stock on the conversion date.

15. Selected Quarterly Data (Unaudited)

The following tables set forth certain unaudited quarterly information for each of the eight fiscal quarters in the two year period ended December 31, 2007. This quarterly information has been prepared on a consistent basis with the audited consolidated financial statements and, in the opinion of management, includes all adjustments which management believes are necessary for a fair presentation of the information for the periods presented. The Company's quarterly operating results may fluctuate significantly as a result of a variety of factors, and operating results for any quarter are not necessarily indicative of results for a full fiscal year or future quarters.

2007 Quarter Ended	Dec. 31	Sep. 30	June 30	Mar. 31
	(in thousands, except per share data)			
Total revenue	$ 12,970	$ 10,861	$ 11,134	$ 11,308
Operating expenses (1)	33,690	30,743	65,714	21,861
Net loss	(21,574)	(20,493)	(55,200)	(10,318)
Basic and diluted net loss per common share	(0.35)	(0.34)	(1.13)	(0.22)

2006 Quarter Ended	Dec. 31	Sep. 30	June 30	Mar. 31
	(in thousands, except per share data)			
Total revenue	$ 14,778	$ 14,312	$ 10,598	$ 9,510
Operating expenses (2)	21,272	18,678	18,686	31,137
Net loss	(6,123)	(3,975)	(7,772)	(21,401)
Basic and diluted net loss per common share	(0.13)	(0.08)	(0.17)	(0.47)

(1) Includes write-off of acquired in-process research and development of $42.4 million recorded in the second quarter of 2007.

(2) Includes restructuring charges of $12.0 million, of which $11.0 million was recorded in the first quarter of 2006.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the timelines specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we carried out an evaluation of the effectiveness of our disclosure controls and procedures (as such term is defined in SEC Rules 13a-15(e) and 15d-15(e)) as of December 31, 2007. Based on such evaluation, such officers have concluded that, as of December 31, 2007, our disclosure controls and procedures were not effective because of the identification of a material weakness in our internal control over financial reporting as described below. Based on a number of factors, including our performance of additional procedures as discussed under "Additional Disclosures and Management's Remediation Efforts" below, our management has concluded that the consolidated financial statements included in Part II, Item 8 of this Form 10-K fairly present, in all material respects, our financial position, results of operations and cash flows for the periods presented in conformity with generally accepted accounting principles (GAAP). The unqualified opinion, which contains an explanatory paragraph relating to our ability to continue as a going concern, of our independent registered public accounting firm on our financial statements as of and for each of the years in the three year period ended December 31, 2007 is included in Part II, Item 8 of this Form 10-K.

Previously disclosed material weakness

As we previously reported in our Form 10-Q for the third quarter of 2007, in connection with the completion of the review of our financial statements for the quarter and nine months ended September 30, 2007 by our independent registered public accounting firm, Ernst and Young LLP, we noted a material weakness in our internal control over financial reporting related to our biofuels segment, caused primarily by untimely and incomplete account reconciliations and insufficient oversight related to the financial statement close processes. During the fourth quarter of 2007, we began implementing a number of measures to remedy the deficiencies, which at the time we believed would be complete by the end of fiscal 2007 and sufficiently remediate the material weaknesses as of December 31, 2007. Such remedial actions included:

- Centralization of core accounting and financial reporting functions into San Diego;
- Hiring of additional temporary accounting personnel to accommodate the increased workload created by the consolidation of the biofuels segment accounting in San Diego;
- Addition of new management to add critical oversight functions to our controls and procedures, including our Corporate Controller, our Senior Finance Manager for the biofuels business unit, and our Chief Legal Officer; and
- Implementation of substantive review procedures over our biofuels business segment year-end accounting procedures by senior finance and accounting personnel to mitigate the risk of financial misstatements due to deficiencies in transaction-level process controls.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over our financial reporting. Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our board of directors, management and other personnel, 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, and includes those policies and procedures that:

(1) Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;

(2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

(3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become ineffective because of changes in conditions or that the degree of compliance with established policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2007 using the framework set forth in the report entitled *Internal Control—Integrated Framework* published by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Management reviewed the results of this evaluation with the Audit Committee of our Board of Directors, and based on this evaluation, management identified deficiencies in our financial statement close process related to:

- inadequate management oversight of the financial statement close process; and

- an insufficient number of staff accountants with a sufficient level of knowledge.

We believe that the combination of these two deficiencies result in a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented on a timely basis. Therefore, management has concluded that we had a material weakness and that our internal control over financial reporting was not effective as of December 31, 2007.

We completed the acquisitions of Celunol Corporation, which we renamed Verenium Biofuels Corporation, in June 2007 described in Note 2 to the consolidated financial statements included in Part II, Item 8 herein. As part of our ongoing integration activities, we are in the process of incorporating the operations of Verenium Biofuels into our controls and procedures and we expect to complete the process by no later than June 30, 2008. Management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of the recent acquisition of Celunol (renamed Verenium Biofuels) which was acquired in June 2007 and which is included in the 2007 consolidated financial statements of Verenium and constituted $71.0 million and $53.6 million of total and net assets, respectively, as of December 31, 2007 and no revenues and a $17.5 million net loss for the year then ended. Management did not assess the effectiveness

of internal control over financial reporting at Celunol because of Verenium's intent to integrate the accounting functions and related controls into existing operations.

Ernst & Young LLP, our independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting which is included below.

Additional Discussion and Management's Remediation Efforts

On June 20, 2007, we completed our merger with Celunol, at which time Celunol became a wholly-owned subsidiary of Verenium, and was renamed Verenium Biofuels Corporation, our biofuels business segment. As a result of the merger, we expanded our operating locations from a single corporate headquarters in San Diego, California to four separate operating locations in California, Florida, Louisiana, and Massachusetts, and moved our corporate headquarters to Cambridge, Massachusetts. Since the merger date, we have been integrating our biofuels business segment's systems, processes and internal controls over financial reporting into our financial reporting systems, and over the course of that time noted deficiencies related to the oversight of the monthly financial close and review process specific to our biofuels business segment, which was formerly a private company. We have been in the process of remediating such deficiencies over the past several months. During the fourth quarter of 2007, we accelerated our remediation efforts and consolidated our biofuels accounting function into our San Diego accounting department.

We believed that this step would remediate the material weakness identified in the third quarter of 2007 as of December 31, 2007; however our remediation efforts proved to be more challenging than originally anticipated due to the volume of transactions and level of complexity involved, and amount of time required to contemporaneously consolidate the biofuels segment accounting functions into San Diego and prepare the year-end financial statements on a timely basis. Because of these challenges, the consolidated financial statement close process for the year ended December 31, 2007 was delayed significantly, particularly for the biofuels business segment, and resulted in several adjustments to the financial statements some of which were identified as a result of the audit and some of which were identified as a result of managements review during the financial statement closing process.

We are currently implementing additional controls and procedures to remediate these deficiencies, including:

- recruitment of additional staff, including an accounting manager, and full-time accounts payable and general ledger staff for our biofuels business segment; and

- additional detailed review procedures over accounting close activities.

We expect these measures to be fully implemented on or before June 30, 2008.

In addition, we have commenced recruiting efforts for a full-time internal control / compliance professional to replace or supplement our internal audit professional services firm, which we utilize on a part-time basis.

These actions we have taken to remediate these deficiencies are subject to continued management review supported by testing, as well as oversight by the Audit Committee of our Board of Directors. We cannot assure you that material weaknesses or significant deficiencies will not occur in the future and that we will be able to remediate such weaknesses or deficiencies in a timely manner, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows. See the Risk Factor entitled "*As of December 31, 2007, we identified a material weakness in internal control over financial reporting. If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud and as a result, investors may be misled and lose confidence in our financial reporting and disclosures, and the price of our common stock may be negatively affected* " in this Annual Report on Form 10-K.

Furthermore, SEC rules require that, as a publicly-traded company, we file periodic reports containing our financial statements within a specified time following the completion of quarterly and annual periods. We must perform system and process evaluations and testing of our internal controls over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal controls over financial reporting on an annual basis, as required under Section 404 of the Sarbanes-Oxley Act. We may experience difficulty in meeting these reporting requirements in a timely manner, particularly if a material weakness or significant deficiencies exists. Even if we are able to report our financial statements accurately and timely, if we do not make all the necessary improvements to address the deficiencies, disclosure of material weaknesses may be required in future filings with the SEC.

Changes in Internal Control over Financial Reporting

As disclosed above, during the fourth quarter of 2007, the Company consolidated its biofuels accounting function into the San Diego operations. Other than this consolidation of the accounting function and the remediation efforts noted above, there has been no change to our internal control over financial reporting during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Verenium Corporation

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

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

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that

controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Verenium Biofuels Corporation, which is included in the 2007 consolidated financial statements of Verenium Corporation and constituted $71.0 million and $53.6 million of total and net assets, respectively, as of December 31, 2007 and $17.5 million of net loss for the year then ended. Our audit of internal control over financial reporting of Verenium Corporation also did not include an evaluation of the internal control over financial reporting of Verenium Biofuels Corporation.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis**.** A combination of deficiencies related to inadequate management oversight of the financial statement close process and an insufficient number of staff accountants with a sufficient level of knowledge resulted in a material weakness in internal control at December 31, 2007.

This material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2007 financial statements, and this report does not affect our report dated March 16, 2008 on those financial statements.

In our opinion, because of the effect of the material weakness described above on the achievement of the objectives of the control criteria, Verenium Corporation has not maintained effective internal control over financial reporting as of December 31, 2007, based on the COSO criteria.

/s/ Ernst & Young LLP

San Diego, California
March 16, 2008

ITEM 9B. OTHER INFORMATION.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Incorporated by reference to our Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days after the close of the year ended December 31, 2007.

ITEM 11. EXECUTIVE COMPENSATION.

Incorporated by reference to our Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days after the close of the year ended December 31, 2007.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

Incorporated by reference to our Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days after the close of the year ended December 31, 2007.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

Incorporated by reference to our Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days after the close of the year ended December 31, 2007.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

Incorporated by reference to our Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission within 120 days after the close of the year ended December 31, 2007.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a)(1) Index to Consolidated Financial Statements

(a)(2) Financial Statement Schedules: All schedules have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the Consolidated Financial Statements or notes thereto included in Item 8 ("Financial Statements and Supplementary Data").

(a)(3) Index to Exhibits—See (b) below.

(b) Exhibits

Exhibit Number	Description of Exhibit
2.1	Transaction Agreement, dated as of December 3, 2002, among Syngenta Participations AG, Torrey Mesa Research Institute and the Company.(5)
2.2	Agreement and Plan of Merger and Reorganization, dated as of February 12, 2007, by and among the Company, Concord Merger Sub, Inc., Celunol Corp., and William Lese.(11)
2.3	Form of Voting Agreement, dated as of February 12, 2007, by and among the Company and certain stockholders of Celunol Corp.(11)
2.4	Form of Voting Agreement, dated as of February 12, 2007, by and among Celunol Corp. and certain stockholders of the Company.(11)
2.5	Form of Lock-up Agreement by and between the Company and certain stockholders of Celunol Corp.(11)
2.6	Form of Lock-up Agreement by and between the Company and certain stockholders of the Company.(11)
2.7	Amendment No. 1 to Agreement and Plan of Merger and Reorganization, dated as of March 22, 2007, by and among the Company, Concord Merger Sub, Inc., Celunol Corp. and William Lese.(13)
3.1	Amended and Restated Certificate of Incorporation.(1)
3.2	Certificate of Amendment of Restated Certificate of Incorporation.(12)
3.3	Amended and Restated Bylaws.(1)
3.4	Amendment to Bylaws of Verenium Corporation.(13)
3.5	Certificate of Amendment of Restated Certificate of Incorporation, filed June 26, 2007.(16)
4.1	Form of Common Stock Certificate of the Company.(2)

Exhibit Number	Description of Exhibit
4.2	Rights Agreement by and between the Company and American Stock Transfer and Trust Company, as Rights Agent, dated as of December 13, 2000 (including the Form of Certificate of Designation of Series A Junior Participating Preferred Stock attached thereto as Exhibit A, the Form of Right Certificate attached thereto as Exhibit B, and the Summary of Rights to Purchase Preferred Shares attached thereto as Exhibit C).(3)
4.3	Amendment to Rights Agreement by and between the Company and American Stock Transfer and Trust Company, as Rights Agent, dated as of December 2, 2002.(6)
4.4	Certificate of Designation of Series A Junior Participating Preferred Stock.(3)
4.5	Form of Warrant issued by the Company to Syngenta Participations AG.(5)
4.6	Registration Rights Agreement dated as of December 3, 2002 among Syngenta Participations AG, Torrey Mesa Research Institute, Syngenta Seeds AG and the Company.(5)
4.7†	Registration Rights Agreement, dated as of July 18, 2003, by and between GlaxoGroup Limited and the Company.(7)
4.8	Second Amendment to Rights Agreement by and between the Company and American Stock Transfer and Trust Company, as Rights Agent, dated as of February 12, 2007.(11)
4.9	Reference is made to Exhibits 3.1 and 3.2.
4.10	Indenture, dated March 28, 2007, between the Company and Wells Fargo Bank, National Association, a national banking association, as trustee, including Form of 5.50% Convertible Senior Note due 2027.(14)
4.11	Registration Rights Agreement, dated March 28, 2007, among the Company and the Initial Purchasers identified therein.(14)
4.12	Form of Common Stock Warrant Agreement and Warrant Certificate.(22)
4.13	Form of Preferred Stock Warrant Agreement and Warrant Certificate.(22)
4.14	Form of Debt Securities Warrant Agreement and Warrant Certificate.(22)
4.15	Senior Debt Indenture, dated November 14, 2007, between the Company and Wells Fargo Bank, National Association, a national banking association, as trustee.(22)
4.16	Subordinated Debt Indenture, dated November 14, 2007, between the Company and Wells Fargo Bank, National Association, a national banking association, as trustee.(22)
10.1	Form of Indemnity Agreement entered into between the Company and its directors and executive officers.(2)
10.2*	1994 Diversa Employee Incentive and Non-Qualified Stock Option Plan, as amended.(2)
10.3*	Form of Stock Option Agreement under the 1994 Diversa Employee Incentive and Non-Qualified Stock Option Plan.(2)
10.4*	1997 Equity Incentive Plan.(2)
10.5*	Form of Stock Option Grant Notice and Stock Option Agreement under the 1997 Equity Incentive Plan.(2)
10.6*	1999 Non-Employee Directors' Stock Option Plan.(2)
10.7*	Form of Stock Option Grant Notice and Related Stock Option Agreement under the 1999 Non-Employee Directors' Stock Option Plan.(2)

Exhibit Number	Description of Exhibit
10.8*	2005 Non-Employee Directors' Equity Incentive Plan.(4)
10.9*	1999 Employee Stock Purchase Plan.(2)
10.10†	Amended and Restated Stockholders' Agreement by and among the Company and the Stockholders identified therein, dated January 25, 1999.(2)
10.11†	License Agreement by and between the Company and Finnfeeds International Limited (now Danisco Animal Nutrition), dated December 1, 1998.(2)
10.12	Lease Agreement, dated February 11, 2000, by and between the Company and KR—Gateway Partners, LLC.(1)
10.13	Lease Agreement, dated February 11, 2000, by and between the Company and KR—Gateway Partners, LLC.(1)
10.14†	Amended and Restated Research Collaboration Agreement dated as of January 3, 2003 between the Company and Syngenta Participations AG.(5)
10.15†	License Agreement dated December 29, 2003 by and between Xoma Ireland Limited and the Company.(8)
10.16†	Transition Agreement dated May 28, 2004 by and between the Company, Zymetrics, Inc., Syngenta Seeds AG, and Syngenta Participations AG.(9)
10.17†	Amendment dated May 28, 2004 to Amended and Restated Research Collaboration Agreement between the Company and Syngenta Participations AG.(9)
10.18	Loan and Security Agreement by and between the Company and Comerica Bank dated September 30, 2005.(10)
10.19††	License and Research Agreement by and between Syngenta Participations AG and the Company, effective December 31, 2006.(12)
10.20*	Letter Agreement, dated February 12, 2007, by the Company and Carlos A. Riva.(11)
10.21	Promissory Note, dated February 12, 2007, by Celunol Corp. for the benefit of the Company.(11)
10.22*	Transitional Employment Agreement, dated February 11, 2007, between the Company and Edward T. Shonsey.(15)
10.23*	Transitional Employment Agreement, dated February 11, 2007, between the Company and Anthony E. Altig.(15)
10.24	Purchase Agreement, dated March 22, 2007, among the Company and the Initial Purchasers identified therein.(14)
10.25	Amendment No. 1 to Promissory Note, dated May 7, 2007, between the Company and Celunol Corp.(17)
10.26	Amendment No. 2 to Promissory Note, dated June 12, 2007, between the Company and Celunol Corp.(18)
10.27*	Amended employment agreement, dated May 11, 2007, between the Company and William H. Baum.(19)
10.28*	Transitional employment agreement, dated May 7, 2007, between the Company and R. Patrick Simms.(20)

Exhibit Number	Description of Exhibit
10.29*	Employment Agreement, dated June 20, 2007, between the Company and Carlos A. Riva.(16)
10.30*	Verenium 2007 Equity Incentive Plan.(20)
10.31*	Form of Executive Officer 2007 Equity Incentive Plan Option Agreement.(21)
10.32*	Form of Non-Executive Employee and Consultant 2007 Equity Incentive Plan Option Agreement.(21)
10.33*	Form of Stock Option Grant Notice and Form of Exercise for use in connection with Executive Officer 2007 Equity Incentive Plan Option Agreement and Non-Executive Employee and Consultant 2007 Equity Incentive Plan Option Agreement.(21)
10.34*	Form of Executive Officer 2007 Equity Incentive Plan Restricted Stock Bonus Agreement.(21)
10.35*	Form of Non-Executive Employee and Consultant 2007 Equity Incentive Plan Restricted Stock Bonus Agreement.(21)
10.36*	Form of Restricted Stock Bonus Grant Notice for use in connection with Executive Officer 2007 Equity Incentive Plan Restricted Stock Bonus Agreement and Non-Executive Employee and Consultant 2007 Equity Incentive Plan Restricted Stock Bonus Agreement.(21)
10.37*	Celunol Corp. (formerly known as BC International Corporation) 2006 Equity Incentive Plan.(20)
10.38*	Celunol Corp. (formerly known as BC International Corporation) 2004 Equity Incentive Plan.(20)
10.39*	Celunol Corp. (formerly known as BC International Corporation) 1998 Stock Plan.(20)
10.40*	Celunol Corp. (formerly known as BC International Corporation) Stock Option Plan for Non-Employee Directors.(20)
10.41*	Letter Agreement, dated November 8, 2006, by and between Celunol Corp. and John A. McCarthy, Jr.(15)
10.42*	Letter Agreement, dated May 17, 2006, by and between Celunol Corp. and John R. Malloy, Jr.(15)
10.43*	Employee Invention, Non-Competition and Confidentiality Agreement, dated July 1, 2006, by and between Celunol Corp. and Carlos A. Riva.(15)
10.44*	Employee Invention, Non-Competition and Confidentiality Agreement, dated November 8, 2006, by and between Celunol Corp. and John A. McCarthy, Jr.(15)
10.45*	Employee Invention, Non-Competition and Confidentiality Agreement, dated May 17, 2006, by and between Celunol Corp. and John R. Malloy, Jr.(15)
10.46*	Restricted Stock Award Agreement, dated July 1, 2006, by and between Celunol Corp. and Carlos A. Riva, as amended by that certain letter agreement dated February 12, 2007.(15)
10.47*	Restricted Stock Award Agreement, dated November 8, 2006, by and between Celunol Corp. and John A. McCarthy, Jr.(15)
10.48*	Incentive Stock Option Agreement, dated May 17, 2006, by and between Celunol Corp. and John R. Malloy, Jr.(15)
10.49*	Indemnification Agreement, dated July 1, 2006, by and between Celunol Corp. and Carlos A. Riva.(15)
10.50*	Indemnification Agreement, dated December, 2004, by and between Celunol Corp. and Joshua Ruch.(15)

Exhibit Number	Description of Exhibit
10.51*	Indemnification Agreement, dated December, 2004, by and between Celunol Corp. and Michael Zak.(15)
10.52†	Consulting Agreement, dated December 20, 2004, by and between Celunol Corp. and Dr. Lonnie Ingram.(15)
10.53†	Amended and Restated License Agreement by and between Celunol Corp. and University of Florida Research Foundation, Inc., dated October 26, 1995 with First Amendment, dated January 25, 2000, and Second Amendment, dated June 29, 2001.(17)
10.54†	Letter Agreement dated December 15, 2004 by and between Celunol Corp. and University of Florida Research Foundation, Inc.(17)
10.55†	Research Agreement dated December 20, 2004 by and between Celunol Corp. and University of Florida Board of Trustees, as amended by Amendment No. 1 to the Research Agreement.(17)
10.56†	Joint Development and Technology Transfer Agreement, dated July 10, 2001 by and between Celunol Corp. and Marubeni Corporation and Tsukishima Kikai Co., Ltd., as amended by that certain memorandum dated July 10, 2001 and those certain letters dated January 9, 2006, January 24, 2006 and February 24, 2006.(17)
10.57†	Exclusive License Agreement, dated July 7, 2006, by and between Celunol Corp. and Kerry Group Services International Limited (KGSI).(17)
10.58	Office Lease Agreement for space at 55 Cambridge Parkway, Cambridge, MA, between 55 Cambridge Parkway, Inc. as landlord and Celunol Corp. as tenant, dated April 5, 2007.(17)
10.59*+	Employment Offer Letter to Mr. Gerald M. Haines II, dated December 27, 2007.
10.60+††	Amended and Restated Fermentation Services Agreement between Diversa Corporation, and Fermic, S.A. de C.V., dated February 17, 2004.
10.61+††	Amendment to Amended and Restated Fermentation Services Agreement between Diversa Corporation, and Fermic, S.A. de C.V., dated August 1, 2006.
21.1+	Subsidiaries of the Company.
23.1+	Consent of Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included as part of the signature page).
31.1+	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities and Exchange Act of 1934, as amended.
31.2+	Certification of Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities and Exchange Act of 1934, as amended.
32.1+	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2+	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Indicates management or compensatory plan or arrangement.

† Confidential treatment has been granted with respect to portions of this exhibit. A complete copy of the agreement, including the redacted terms, has been separately filed with the Securities and Exchange Commission.

†† Confidential treatment has been requested with respect to portions of this exhibit. A complete copy of the agreement, including redacted terms, has been separately filed with the Securities and Exchange Commission.

+ Filed herewith.
(1) Filed as an exhibit to the Company's Quarterly Report Form 10-Q for the quarter ended March 31, 2000, filed with the Securities and Exchange Commission on May 12, 2000, and incorporated herein by reference.
(2) Filed as an exhibit to the Company's Registration Statement on Form S-1 (No. 333-92853) filed with the Securities and Exchange Commission, as amended, and incorporated herein by reference.
(3) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 15, 2000, and incorporated herein by reference.
(4) Filed as an exhibit to the Company's Proxy Statement on Form 14-A filed with the Securities and Exchange Commission on April 15, 2005, and incorporated herein by reference.
(5) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 6, 2003, and incorporated herein by reference.
(6) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 4, 2002, and incorporated herein by reference.
(7) Filed as an exhibit to the Company's Quarterly Report Form 10-Q for the quarter ended June 30, 2003, filed with the Securities and Exchange Commission on August 14, 2003, and incorporated herein by reference.
(8) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 12, 2004, and incorporated herein by reference.
(9) Filed as an exhibit to the Company's Quarterly Report Form 10-Q for the quarter ended June 30, 2004, filed with the Securities and Exchange Commission on August 6, 2004, and incorporated herein by reference.
(10) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 6, 2005, and incorporated herein by reference.
(11) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 12, 2007, and incorporated herein by reference.
(12) Filed as an exhibit to the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 16, 2007, and incorporated herein by reference.
(13) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 27, 2007, and incorporated herein by reference.
(14) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 28, 2007, and incorporated herein by reference.
(15) Filed as an exhibit to the Company's registration statement on Form S-4 (No. 333-141392), originally filed on March 19, 2007, as amended, and incorporated herein by reference.
(16) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on June 26, 2007, and incorporated herein by reference.
(17) Filed as an exhibit to the Company's Amendment No. 2 to Registration Statement on Form S-4 (No. 333-141392) filed with the Securities and Exchange Commission on May 8, 2007, and incorporated herein by reference.
(18) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on June 13, 2007, and incorporated herein by reference.
(19) Filed as an exhibit to Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 11, 2007, and incorporated herein by reference.
(20) Filed as an exhibit to the Company's Registration Statement on Form S-8 (File No. 333-145062), filed with the Securities and Exchange Commission on August 2, 2007, and incorporated herein by reference.
(21) Filed as an exhibit to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 25, 2007, and incorporated herein by reference.
(22) Filed as an exhibit to the Company's Registration Statement on Form S-3 (No. 333-147403) filed with the Securities and Exchange Commission on November 15, 2007, and incorporated herein by reference.

SIGNATURES

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

VERENIUM CORPORATION

By: /s/ JOHN A. MCCARTHY, JR.
John A. McCarthy, Jr.
Executive Vice President and Chief Financial Officer

Date: March 17, 2008

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Carlos A. Riva and John A. McCarthy, Jr., and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments to this Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their or his substitute or substituted, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ CARLOS A. RIVA **Carlos A. Riva**	President, Chief Executive Officer and Director (Principal Executive Officer)	March 17, 2008
/s/ JOHN A. MCCARTHY, JR. **John A. McCarthy, Jr.**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	March 17, 2008
/s/ JEFFREY G. BLACK **Jeffrey G. Black**	Vice President and Chief Accounting Officer (Principal Accounting Officer)	March 17, 2008
/s/ JAMES H. CAVANAUGH **James H. Cavanaugh, Ph.D.**	Chairman of the Board of Directors	March 17, 2008
/s/ FERNAND J. KAUFMANN **Fernand J. Kaufmann, Ph.D.**	Director	March 17, 2008
/s/ PETER JOHNSON **Peter Johnson**	Director	March 17, 2008

Signature	Title	Date
/s/ Mark Leschly **Mark Leschly**	Director	March 17, 2008
/s/ Joshua Ruch **Joshua Ruch**	Director	March 17, 2008
/s/ Cheryl Wenzinger **Cheryl Wenzinger**	Director	March 17, 2008
/s/ Michael Zak **Michael Zak**	Director	March 17, 2008

December 27, 2007

Mr. Gerald M. Haines II
57 Alderbrook Drive
Topsfield, Massachusetts 01983

Dear Gerry:

I am pleased to extend this offer of employment to join Verenium in the position of Executive Vice President and Chief Legal Officer reporting to Carlos Riva. I look forward to having you join the executive team in this position which is so critical at this stage of our company's development. We extend this offer, and the opportunity it represents, with great confidence in your abilities and a belief that you can make a significant contribution to Verenium's strategic growth plan.

Base Salary and Annual Bonus

Your annual base salary will be $280,000 per year less applicable deductions and withholdings. Compensation will be paid semi-monthly at the rate of $11,666.66 which is your annual salary divided by twenty-four (24) pay periods. You will be eligible to achieve a target annual bonus payout of 50% of your base salary. It is Verenium's policy to prorate any potential bonus awards based on the actual number of months employed during the first year of employment.

Stock Options

Subject to approval by Verenium's Board of Directors you will be granted an option (in the form of an Incentive Stock Option) to acquire 250,000 shares of Verenium's common stock at an exercise price equal to the fair market value at the time of grant. Option vesting for 150,000 will occur as follows: 25% after 12 months of employment, quarterly thereafter on the remaining 75% over the subsequent three years. Option vesting for 100,000 shares will be performance based and will vest at 100% on the seventh anniversary of the grant date or be subject to accelerated vesting based upon achievement of corporate goals as determined by the Compensation Committee of the Board of Directors.

Benefits

You will be eligible to participate in all Verenium benefits including medical, dental, vision, disability and life insurance upon hire. The cost of coverage for these benefits will be shared between you and Verenium; the employee contributions are extremely competitive and are listed on the attached summary. You will also be eligible to enroll in our 401(k) Plan on the first of the month following your date of hire. We are pleased to offer you four weeks (20 days) of paid vacation time; this is in addition to 12 paid holidays. The Company reserves the right to evaluate and amend these benefits in support of business needs. Please see enclosed benefit summary for further detail on our benefit programs.

Compliance Agreements

As a condition of employment, there are several documents requiring your review and signature: Verenium's Invention and Non-Disclosure Agreement, Attachment A; compliance with the Immigration Reform and Control Act of 1986, requiring you to provide documentation verifying your employment eligibility as of your first day of employment (Attachment B) and the completion of a background check (Attachment C).

An employment contract will be offered to you within the first 30 days of employment which will address other employment related considerations. In addition, attached please find an executive Indemnity Agreement for review and execution. (Attachment D). If the terms of this offer are acceptable, please sign and return a copy of this letter, together with an executed copy of Attachments A, C and D to me.

Gerry, I am hopeful you will accept this offer to join the Verenium senior leadership team as we prepare for a very important 2008 in this exciting and dynamic industry. I look forward to hearing from you and please do not hesitate to contact me (617-674-5330) directly with any questions, concerns or comments.

Sincerely,

/s/ Mary Ellen Jones

Mary Ellen Jones
Senior Vice President, Human Resources

I accept Verenium's employment offer as set forth in this letter agreement:

/s/ Gerald M. Haines, II
Gerald M. Haines, II

Date

Attachments:

Attachment A: Employee Invention and Non-Disclosure Agreement
Attachment B: Form I-9, Employment Eligibility Verification
Attachment C: Fair Credit Reporting Act, Disclosure and Authorization
Attachment D: Indemnity Agreement

Exhibit 10.60

*****Text Omitted and Filed Separately with the Securities and Exchange Commission. Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 240.24b-2**

AMENDED AND RESTATED FERMENTATION SERVICES AGREEMENT

This agreement (***"Agreement"***) is effective as of the 17th day of February, 2004 between Diversa Corporation, with a place of business at 4955 Directors Place, San Diego, CA 92121 USA (***"Diversa"***) and Fermic, S.A. de C.V., with a place of business at Reforma No. 873-Iztapalapa, Mexico D.F., Mexico (***"Fermic"***).

RECITALS

- Diversa owns proprietary know-how and rights concerning microbial and biochemical processes by which safe strains are grown and processed to yield certain products, including Diversa enzymes (***"Product(s)"***).

- Diversa wishes to produce Product(s) in commercial quantities and in order to do so, desires access to a facility with adequate fermentation capacity, space for downstream recovery and Product storage, and a trained labor force.

- Fermic owns and operates a fermentation plant at Iztapalapa in Mexico city (the ***"Facility"***) which has the capacity and the labor force to produce Product(s) for commercialization by Diversa.

- Diversa and Fermic entered into a Fermentation Services Agreement effective as of May 31, 2002 (***"Original Agreement"***) and now desire to amend and restate such agreement.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

ARTICLE 1

DEFINITIONS

As used in this agreement, the following terms shall have the meanings

"Auxiliary Equipment" – Processing equipment, including […***…],[…***…],[…***…], formulation and storage ([…***…] C]), and piping and other items required for installation of said equipment.

"Equipment" **–** All equipment required for Fermic to perform its obligations under this Agreement, including laboratory equipment, and storage for raw and packaging materials and Auxiliary Equipment.

"Expanded Fermentation Capacity" – A series of up to […***…] ([…***…]) additional fermentors, each having a nominal capacity of […***…] liters, which are on site at the Fermic facility, but require installation, enclosure, and support services to become operational.

"Microorganism(s)" – Any strain owned by Diversa, or licensed to Diversa with rights to sublicense, and provided to Fermic by Diversa under the terms of this Agreement.

"Operations Manual(s)" – The detailed written instructions and specifications prepared by Diversa describing the process for the manufacture, quality control, packaging and storage of each Product, and provided to Fermic by Diversa under the terms of this Agreement.

"Proprietary Information" – Any information, drawings, manuals and other documents transmitted or communicated directly or indirectly on behalf of the disclosing party to the receiving party and marked confidential or proprietary and any information or data orally described as confidential or proprietary or which the receiving party has reason to believe is such. Proprietary Information may include, with out limitation, information relating to the disclosing party's business and activities product research and development, marketing plans or techniques, client lists and any scientific or technical information, design, process, procedure, formula, or know-how (whether or not patentable). Diversa Proprietary Information includes the Operations Manual(s) and the Microorganism(s).

"Fermentation Capacity" – Nominal fermentation vessel capacity.

ARTICLE 2

AGREEMENT TO MANUFACTURE; LICENSE

2.1 Subject to the terms and conditions of this Agreement, Fermic agrees to manufacture Product(s) at the Facility during the term of this Agreement using specified Microorganism(s), an Operations Manual for each Product to be manufactured and other Proprietary Information provided by Diversa.

2.2 Diversa hereby grants to Fermic a nonexclusive right and license during the term of this Agreement, and only during the term of this Agreement, to use processes described in the Operations Manual(s), Microorganism(s) and other Diversa Proprietary Information solely for purposes of supplying Product(s) to Diversa pursuant to this Agreement. All Products manufactured by Fermic shall belong to Diversa and Fermic may not produce Products, or directly competitive products, other than for or on behalf of Diversa under the terms of this Agreement, and for a period of […***…] ([…***…]) year thereafter.

2.3 No right, express or implied, is granted by this Agreement to Fermic to use in any manner a trademark or any other trade name of Diversa in connection with the performance of this Agreement.

2.4 Fermic shall obtain and maintain all required licenses, certifications and approvals necessary to authorize and permit (a) the import of Microorganism(s) and any Auxiliary Equipment purchased by Diversa (b) the manufacture of Product(s) at the Facility and (c) the

delivery and export of Product(s) manufactured under this Agreement. Applications for such licenses and certifications and approvals will be made in the name of Fermic and Fermic will furnish to Diversa copies of all such documentation within […***…] ([…***…]) days of its creation. Diversa shall be responsible for obtaining any licenses or permits required for export of any Microorganism from the United States to Mexico, and for the import of Products into the United States.

ARTICLE 3

OBLIGATIONS

3.1 Diversa's Obligations. Diversa shall provide the following to Fermic to facilitate Fermic's production of the Product (s):

3.1.1 Design and procurement of specific Auxiliary Equipment components specified in Section 5.6.

3.1.2 Cultures of any Microorganism(s) required to produce Product(s)

3.1.3 Operations Manual(s) for each Product to be produced which include:

- Operating protocols
- Quality control protocols
- Specifications for raw materials and packaging materials
- Product specifications
- Safety information (MSDS) for Diversa-supplied materials
- Packaging and storage specifications
- Production schedules
- Shipping instructions.

3.1.4 Diversa written or oral information and documents concerning process and Diversa Proprietary Information as Diversa considers necessary to permit Fermic to produce each Product.

3.1.5 All required licenses, certifications and approvals related to U.S. law.

3.1.6 Technical oversight as required for scale-up, troubleshooting, and process improvement of Product(s).

3.2 Fermic's Obligations. Fermic shall produce, store and ship Product(s) for Diversa at the Facility according to Article V and the Operations Manual related to each Product, using the Equipment and all necessary support and storage equipment and facilities required to successfully fulfill this obligation. Fermic shall provide the following to facilitate the production of Product(s):

3.2.1 Equipment;

3.2.2 Auxiliary Equipment components and installation of Auxiliary Equipment as specified in Section 5.6;

3.2.3 Operations and technical personnel;

3.2.4 Utilities;

3.2.5 Waste treatment;

3.2.6 Quality control testing;

3.2.7 Records of production and analysis;

3.2.8 Purchase of raw materials and packaging materials;

3.2.9 All other support equipment, materials and labor necessary for the production of Products other than items delivered to Fermic by Diversa pursuant to Section 3.1; and

3.2.10 All required licenses, certifications and approvals related to Mexican law.

ARTICLE 4

Scale-Up

Prior to conducting commercial production runs at any new scale, Diversa and Fermic shall conduct an evaluation run at that scale, at a cost based […***…] on appropriate cost structure under Section 5.1. If the scale-up run fails to produce acceptable […***…], defined as […***…] of the average […***…] of the most recent […***…] ([…***…]) batches run within standard protocol at the previous scale, Fermic shall conduct, Diversa's option, up to […***…] ([…***…]) additional runs at the appropriate […***…] cost under Section 5.1.

ARTICLE 5

Production; Auxiliary Equipment; Expanded Fermentation Capacity

5.1 Fermic shall (a) provide the Equipment, laboratory facilities and labor at the Facility necessary to manufacture, store, and ship the Products and (b) be responsible for purchasing raw materials from suppliers approved in writing by Diversa (other than the Microorganism which shall be supplied by Diversa). Diversa shall have the option to require, based on its needs, an upgrade from time to time to a larger fermentor scale by giving […***…] ([…***…]) […***…] notice to Fermic. Beginning with initial commercial production of Product in a newly-installed fermentor, Diversa agrees to schedule (and pay for) a minimum of […***…] utilization ([…***…] per running […***…]) of such fermentor for the initial […***…] ([…***…]) […***…], and […***…] utilization thereafter, utilizing no less than […***…] duration campaigns. In addition, the parties agree to cooperate to schedule longer campaigns when feasible, taking into consideration inventory limitation commitments with

Diversa's partners and the perishable nature of enzyme products. Upon commencing utilization of further Expanded Fermentation Capacity, if such capacity utilization occurs in less then […***…] ([…***…]) […***…] from the date of the start-up of the prior fermentor, utilization of such prior fermentor shall move to […***…]%. Fermic agrees to make capacity available to Diversa, as required, according to Appendix A, up to […***…] liters of Fermentation Capacity on a full time basis. Capacity left uncommitted by Diversa past […***…] ([…***…]) […***…] prior to the target date may be removed from the available fermentor list on Appendix A at Fermic's sole discretion. If a fermentor is installed by Fermic pursuant to this Agreement, but then not used by Diversa hereunder, and Fermic then chooses to use such fermentor for alternate purposes, Fermic may reclaim such fermentor by reimbursing Diversa its investment related to such fermentor hereunder.

5.2 The Equipment and laboratory facilities to be used by Fermic must be acceptable to Diversa and no changes shall be made to the Equipment and facilities used in the manufacture of the Products unless approved in advance by Diversa in writing (except in an emergency, whereby Diversa shall be immediately notified, and then only for the duration of the emergency).

5.3 Fermic agrees to assign a technical representative acceptable to Diversa to act as liaison with Diversa. Fermic warrants that the Equipment, the laboratory facilities and the Facility will be maintained in good condition and that Fermic will retain a trained workforce adequate to manufacture Products under this Agreement notwithstanding any obligations it might have to third parties. Fermic gives no warranty whatsoever that the process described in art Operations Manual or the Microorganism will produce a Product in any given quantity or of any given quality.

5.4 Fermic shall have sole responsibility for compliance with all environmental laws and regulations applicable to the Facility and the manufacture of Products and for disposal wastes in compliance with law and Diversa shall have no liability to Fermic or others in connection with the disposal of wastes from the Facility or noncompliance with such environmental laws or regulations.

5.5 Fermic agrees to package and ship the Products in such packaging, volumes and to such Diversa customers as Diversa shall instruct in writing. All shipping and any other directly related costs actually incurred by Fermic in connection with packaging and shipping the Products shall be invoiced separately to Diversa which shall pay the amounts due within […***…] ([…***…]) […***…] of receipt of the invoice, except to the extent Diversa disputes, in good faith, any charge(s) reflected on such invoice (in which event it shall make all undisputed payments in accordance with this sentence).

5.6 Diversa and Fermic have determined that additional Auxiliary Equipment is needed for existing fermentation ([…***…]) and downstream processing of the Products at the Facility. Diversa will determine the optimum design for the downstream processing, locate vendors for the solids separation and ultrafiltration components of Auxiliary Equipment (new or used), purchase the Auxiliary Equipment components for installation at the Facility, and work with Fermic engineers in installing it. Other than specific Auxiliary Equipment, which shall be paid by Diversa, Fermic will be responsible for the costs of any structural changes or additions to

the Facility that may be needed, and for the installation and operation of the additional Auxiliary Equipment, Fermic further agrees to reimburse Diversa its out-of-pocket capital costs, as defined in this Section 5.6, of up to […***…] […***…] ([…***…]) for each […***…] of Fermentation Capacity used by Diversa in […***…] ([…***…]) equal […***…] payments, starting from the date of Diversa payment of the next Fermic invoice following installation of a component of Auxiliary Equipment. Reimbursement for previously installed Auxiliary Equipment in excess of […***… […***…] ([…***…]) for each liter of Fermentation Capacity then being utilized will initiate at the time Diversa moves to increased Fermentation Capacity, up to […***…] […***…] ([…***…]) for each […***…] of the new Fermentation Capacity. All reimbursements will be made by reduction of the tolling fees as set forth in Section 9.1. The parties agree to negotiate in good faith the disposition of any Equipment remaining partially reimbursed following normal termination of the Agreement.

5.7 Pursuant to this Agreement, Expanded Fermentation Capacity will need to be put into operation from time to time, as projected in Appendix A. Diversa and Fermic will agree on design schedule and capital requirements to bring the Expanded Fermentation Capacity online. Fermic will fund the capital requirements for the Expanded Fermentation Capacity; Diversa will reimburse Fermic for such expenditures, based on invoices from Fermic as such expenditures occur, up to a maximum of […***…] percent ([…***…]%) of such costs. Upon start-up and operation of each […***…] fermentor of the Expanded Fermentation Capacity, Fermic will reimburse Diversa […***…] percent ([…***…]%) of the amounts previously paid by Diversa to Fermic in respect of such Expanded Fermentation Capacity, in […***…] ([…***…]) monthly payments, each payment based on […***…] of […***…] percent ([…***…]%) of the total amount Diversa is projected to reimburse Fermic (which total amount is listed on Appendix A and shall be updated from time to time) for the total projected additional project cost to bring the full capacity in Appendix A into operation, starting from the date of Diversa's payment of the first Fermic invoice following start-up of such Expanded Fermentation Capacity; *provided, however*, that to the extent the amount reimbursed by Diversa to Fermic for any such […***…] fermentor of the Expanded Fermentation Capacity is less than or greater than the corresponding amount Diversa was projected to reimburse Fermic for such fermentor per Appendix A, then […***…] of any such difference shall be reflected (as either a decrease or increase, respectively) in each payment due to Diversa hereunder associated with such fermentor; and *provided further* that for each fermentor within the Expanded Fermentation Capacity that is reclaimed by Fermic hereunder, Fermic shall make an additional payment to Diversa of […***…] $[…***…] in addition to the monthly payments scheduled to be made. By way of example only, Appendix B sets forth two different scenarios where the actual amounts reimbursed by Diversa to Fermic for such costs are, respectively, less than and greater than such projected amounts. All reimbursements will be made by reduction of the […***…] or to offset amounts paid […***…]; provided, however, that should Fermic elect to terminate this Agreement prior to Diversa having received full reimbursement of the amounts previously paid by Diversa to Fermic in respect of Expanded Fermentation Capacity, Fermic will reimburse Diversa […***…]. Such payment will be payable on the date of termination; provided, however, that Fermic shall make all required interim monthly payments via reduction of […***…]

5.8 If, prior to the minimum term pursuant to Section 12.1, this Agreement is terminated because of Fermic's breach, the additional Auxiliary Equipment shall belong to

Diversa and Diversa shall have the right to remove said Equipment (at Diversa's expense) and, to the extent such right is exercised by Diversa, reimburse Fermic for any amounts reimbursed by Fermic to Diversa to that point in respect of such Auxiliary Equipment. If, prior to the minimum term pursuant to Section 12.1, this Agreement is terminated because of Diversa's breach, Fermic may elect either to keep the additional Auxiliary Equipment and pay Diversa the balance due or require Diversa to remove the equipment (at Diversa's expense) and reimburse Fermic the total amount of credits actually allowed toward payment pursuant to Section 5.3.

5.9 Diversa may provide Fermic with new Microorganism(s) from time to time: These flew Microorganism(s) will be subjected to a test run under the supervision of Fermic and Diversa personnel before it is used to manufacture a Product in large volumes. There will be no additional charge to Diversa for these test runs.

5.10 Fermic agrees that Diversa personnel may have all reasonable access to the Facility to assist in equipment installation and start-up preparation for production runs, and monitoring of production of Product(s). Fermic further agrees that joint venture or marketing partners of Diversa may have reasonable access as guests of Diversa for the purpose of periodically auditing the manufacture of Products for that partner and for providing technical assistance in start-up, process transfer, or for evaluation of potential process improvements.

ARTICLE 6

SCHEDULING

6.1 Diversa will provide Fermic a schedule showing projected fermentation batches and Product(s) for the following month at least […***…] ([…***…]) days prior to the beginning of each month. Within reason, Diversa reserves the right to modify this schedule based on updated events as the month progresses.

6.2 Diversa will provide Fermic a schedule of formulation and packaging requirements each week for the following week.

6.3 Diversa will inform Fermic on a regular ongoing basis of scheduled shipments of Product(s) from the Facility.

ARTICLE 7

PRODUCTION RECORDSAND SAMPLES

7.1 Fermic shall maintain, and make available to Diversa upon request, production run records which include all documentation and sample records required by each Operations Manual.

7.2 Fermic shall collect, label and maintain in storage all samples required according to each Operations Manual.

ARTICLE 8

Quality Control/Out-of-Specification Product

8.1 Fermic shall carry out, by a trained and qualified analyst, all final Product quality control tests called for in the appropriate Operations Manual. Fermic shall immediately notify Diversa of any Product which fails to meet specification provided by Diversa.

8.2 Diversa personnel shall be provided necessary laboratory equipment and space on a periodic basis as required to check any analytical result. In the case of a discrepancy between Diversa and Fermic analytical results, Diversa reserves the right to make the final determination of the result, which if requested by Fermic can be checked by an independent analytical laboratory validated by the parties.

8.3 Fermic shall be responsible for waste disposal of any out-of-specification Product that is not salvageable by reasonable reprocessing. Any such reprocessing shall be approved in advance in writing by Diversa.

ARTICLE 9

Tolling Fees

9.1 Diversa will pay compensation to Fermic for processing costs and labor involved in fermenting, recovering, packaging and handling the Products, for any structural or other additions made to the Facility, and for all of its other services under this Agreement, as follows: Diversa shall pay Fermic a tolling fee of […***…] $[…***…] per […***…] per […***…] of Fermentation Capacity at […***…] scale, and […***…] $[…***…] per […***…] per […***…] of fermentor capacity between […***…] and […***…] capacity. For fermentation tank capacity of […***…], the parties agree to negotiate in good faith, within a period not to exceed […***…] following start up of the first […***…] fermentor, a price based on cost savings at the increased fermentation scale. Such tolling rates include variable fermentation fees, reducing with increasing capacity, and constant fees for recovery of $[…***…] per […***…] per […***…], and formulation, storage and quality control of $[…***…] per […***…] per […***…]. Utilization for partial […***…] in excess of […***…] minimum campaigns shall be calculated […***…] on the basis of fermentation days utilized. For Diversa to realize the benefit of cost savings for increased fermentor capacity, a minimum […***…] ([…***…]) […***…] of a running […***…] ([…***…]) […***…] utilization of the new scale of capacity must be committed in writing. In addition Diversa will reimburse Fermic for the actual cost of raw materials (including packaging and shipping expenses if applicable) used in the manufacture of Product(s). The parties will agree on the optimal source of raw materials. Diversa shall, in its sole discretion, determine the required specification of all raw materials required for the Product(s).

9.2 Payment of the tolling fees shall be made […***…] in advance on the first business day of each […***…] by wire transfer to the account designated by Fermic. The cost of raw materials (including packaging and shipping expenses if applicable) shall be invoiced

[…***…] by Fermic and paid by within […***…] of receipt of the invoice, except to the extent Diversa disputes, in good faith, any charge(s) reflected on such invoice (in which event it shall make all undisputed payments in accordance with this sentence).

9.3 If at anytime during the term of this Agreement production of the Product(s) is stopped or delayed because of one or more problems with the Equipment or the Facility, failure to follow protocol, or contamination, there will be a pro rata reduction in the tolling fee proportional to the duration of the stoppage or delay. In addition, for any such losses related to the above, including losses resulting from failure to follow protocol, contamination, or mechanical failure during recovery operations, Diversa's cost of raw materials will be credited. For purposes of this Agreement, the term "contamination" shall include the cross-contamination of any detectable amount of antibiotic compound in the Product, with the exception of antibiotics Diversa may add from time to time as part of the fermentation protocol. Diversa may either credit the reduction against the tolling payment due immediately following restoration of production or request direct reimbursement. Fermic shall pay Diversa any reimbursement due within […***…] ([…***…]) […***…] of request therefor by Diversa. Once routine production of a Product has been established by the production of […***…] ([…***…]) […***…] meeting specification, as specified in the Product Operations Manual, Fermic warrants that it will staff and train its employees, and maintain the Facility, in a manner sufficient to provide a minimum of […***…]% […***…] of acceptable Product versus plan at the average yield over any […***…] ([…***…]) […***…] time period.

ARTICLE 10

CONFIDENTIALITY

10.1 Except as specifically provided by this Agreement. (a) Fermic shall not acquire any right, title or interest in any issued or pending patents of Diversa, any Microorganism, or any other Proprietary Information of Diversa, (b) Fermic shall use Operations Manual, all Diversa Proprietary Information and any Microorganism solely in accordance with its rights and licenses granted hereunder and not for any other purpose, and (c) Diversa shall not acquire any right, title or interest in the Proprietary Information of Fermic, except as provided hereunder.

10.2 From and after the date hereof and for a period of […***…] ([…***…]) […***…] from the date of expiration or termination of this Agreement, each party agrees to hold in confidence all Proprietary information of the other.

10.3 Each party will restrict disclosure of and access to the other's Proprietary Information to the minimum number of its employees necessary to carry out the purposes of this Agreement and each party will use its best efforts, including efforts fully commensurate with those employed by it for the protection of its own confidential information and Microorganisms to protect the other's Proprietary Information disclosed to it pursuant to this Agreement.

10.4 The parties agree that these confidentiality obligations do not apply to the following:

10.4.1 Information which appears in issued parents or printed publications in integrated form or which otherwise is or becomes generally know in the trade through no fault of the receiving party;

10.4.2 Information which the receiving party can show by dated records was in its possession prior to the disclosure thereof by the disclosing party, or

10.4.3 Information which conies into a party's possession from a third party without breach of any obligation to the other party to maintain the confidentiality of the information.

10.5 Information to the extent such disclosure is reasonably necessary to comply with government regulations, provided that it gives the other party reasonable advance notice of the pending disclosure and uses its best efforts to secure confidential treatment of the information required to be disclosed.

ARTICLE 11

Indemnity; Warranty Disclaimer

11.1 Fermic warrants to Diversa that all Product manufactured, packaged, stored and/or shipped under this Agreement shall meet the Product specifications and quality control standards provided by Diversa and accepted by Fermic. FERMIC GIVES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Diversa's remedy for any breach of the warranty set forth in this Section 11.3 shall be, at its option, either (a) replacement of the nonconforming Product, or (b) a credit against payments due Fermic under this Agreement.

11.2 Fermic shall indemnify and hold harmless Diversa and its directors, officers. employees and agents from any claims, demands, liabilities, taxes, suits, costs and expenses (including attorneys' fees) of any kind or nature whatsoever arising out of (a) the operation or condition of any part of the Facility, (b) any negligence or willful misconduct by Fermic, or (c) the breach by Fermic of any term of this Agreement.

Diversa shall indemnify and hold harmless Fermic and its directors, officers, employees and agents from any claims, demands, liabilities, taxes, suits, costs and expenses (including attorneys' fees) of any kind or nature whatsoever arising out of (a) any negligence or willful misconduct by Diversa, or (b) the breach by Diversa of any term of this Agreement; provided that no such indemnification shall be required with respect to any such matters arising out of acts or omissions of Fermic for which Fermic is obligated to indemnify Diversa as set forth above.

The defense, settlement, adjustment or compromise of any claim or suit for which a party becomes obligated under this Section 11.2 shall be in the sole control of such indemnifying party; provided that no such settlement may be entered into

without the prior written consent of the indemnified party unless it provides for a full release of the indemnified party. The indemnified party may, if it desires, employ counsel at its own expense.

ARTICLE 12

TERMSAND TERMINATION

12.1 Unless earlier terminated pursuant to Sections 12.2, 12.3, or 12.4, this Agreement shall terminate no earlier than four (4) years from the date of this Agreement, and thereafter will continue in force until thirty (30) months following the date of a written notice of intent to terminate by either party, unless mutually agreed between the parties to be a shorter term.

12.2 If a Microorganism is not producing a yield that is acceptable to Diversa, or if Fermic is unable to manufacture a Product at the Facility for any reason, including force majeure, for a period of more than one month, Diversa may terminate this Agreement effective as of the end of a month by giving Fermic at least […***…] ([…***…]) […***…] advanced written notice of termination, where upon neither party shall have any further obligation to the other except payment for amounts due the other as of the date of termination and obligations under those ARTICLES and Sections of the Agreement that specifically survive its termination or expiration. Pursuant to this Section 12.2, Auxiliary Equipment shall belong to Diversa and Diversa shall have the right to remove said equipment (at Diversa's expense), subject to the provisions of Section 5.8.

12.3 Notwithstanding anything to the contrary herein, Diversa shall have the right to reduce its volume requirements under this Agreement by an appropriate amount with […***…] written notice upon the notice of termination of a supply agreement for Product; provided, however, that such reduced commitment shall not exceed the volume utilized for such supply agreement.

12.4 Either party shall have the right (but not the obligation), by giving written notice to the ether, to terminate this Agreement upon the occurrence of any of the following events:

12.4.1 The other party defaults in the performance or observance of any section contained in this Agreement and such default is not cured within thirty (30) days of written notice thereof from the non-defaulting party.

12.4.2 The other party admits in writing its inability to pay its debts generally as they become due; files or consents to the filing against it of a petition under bankruptcy or any insolvency or similar law; appoints or consents to the appointment of a receiver of itself of all or a substantial part of its property; becomes subject to a court order under which all or a substantial part of its property is under the control and custody of a court; is subject to an involuntary filing against it of a petition under bankruptcy or other insolvency law; or is in a circumstance substantially similar in character to any of the above.

12.5 Upon termination of this Agreement for any reason, each party shall promptly

return or destroy all Proprietary Information of the other. Without limiting the foregoing, Fermic shall return or destroy all Microorganism(s). Each party shall certify in writing to the other that it has fully complied with this Section 12. 5.

12.6 The following Articles and Sections shall survive termination or expiration of this Agreement: Section 5.7, Section 5.8, ARTICLE X (Confidentiality), ARTICLE XI (Indemnity; Warranty Disclaimer); Section 12.5 (Return or Destruction of Proprietary Information); Section 15.3 (Independent Contractor Relationship); Section 15.6 (Governing Law); and Section 15.7 (Dispute Resolution).

ARTICLE 13

Riskof Loss; Insurance

13.1 Fermic shall bear the risk of loss of the Products while the Product is stored at the Facility. As between Fermic and Diversa, the risk of loss shall pass to Diversa upon shipment of the Products to the customers designated by Diversa or upon its purchase by Fermic.

13.2 Fermic shall maintain in continuous force insurance against loss or damage of the Equipment (including any additional Auxiliary Equipment purchased by Diversa pursuant to Section 5.6), the Facility, all raw materials (other than the Microorganism), work in process, and the Product while it is stored at the Facility for all casualty risks and all other risks usually insured against by persons operating a similar business. Fermic will authorize its insurance carrier to provide a certificate of insurance to Diversa verifying such insurance coverage. In the event of any casualty loss to Auxiliary Equipment purchased by Diversa and installed at the Facility prior to payment therefore by Fermic, Fermic hereby assigns to Diversa the right to collect insurance proceeds up to the amount still owed by Fermic. In the event of any casualty loss to the Products, Fermic hereby assigns to Diversa the right to collect insurance proceeds for such loss or damage to the extent the loss or damage to the Product is covered by insurance maintained by Fermic.

ARTICLE 14

Force Majeure

14.1 Except as specifically provided in Section 12.2, no failure or omission to carry out or to observe any of the terms, provisions or conditions of this Agreement shall give rise to any claim by one party against the other, or be deemed to be a breach of this Agreement, if such failure or omission is caused by one or more of the following; war (whether or not declared and whether or not the United States is a participant) or hostilities; acts of the public enemy or belligerents; sabotage; blockade, revolution, insurrection, riot or disorder; expropriation, requisition, confiscation or nationalization; embargoes; export or import restrictions or rationing or allocation, whether imposed by law, decree or regulation or by voluntary cooperation of industry at the instance or request of any governmental authority or organization owned or controlled by any government or person purporting to act therefore; interference by, or restriction or onerous regulation imposed by, any governmental authority, to whose jurisdiction the party is

subject; act of God; fire; earthquake; storm; epidemics; quarantine; strikes, lockouts or other labor disturbances; explosion; breakage or accidents by fire or otherwise to transportation or distribution facilities or equipment; unavailability of raw materials; failure of the Facility to operate for any reason beyond the control of Fermic; shutdown of the Facility for prudent maintenance; or any other event, matter or thing wherever occurring, and whether or not of the same class or kind as those set forth above which, by the exercise of due diligence, the party concerned is unable to overcome.

14.2 A party affected by an actual or potential force majeure situation shall promptly notify the other party of such situation. Diversa shall not be required to pay Fermic […***…] and shall be entitled to a refund for any […***…] already paid for any period in excess of 24 hours that the Equipment then being used to manufacture the Products of the Facility is not in operation. Any refund may be in the form of a credit toward future […***…].

ARTICLE 15

MISCELLANEOUS

15.1 Any notice given under this Agreement shall be in writing and delivered by a recognized overnight courier service, addressed as follow:

If to Fermic to it at:

Fermic, S.A. de C.V.
Reforma No. 873 - Iztapalapa
09850 Mexico D.F., Mexico
Attention: Mr. Alessandro Falzoni

Telephone: 011-525-656-1644
Facsimile: 011-525-656-1542

If to Diversa to it at:

Diversa Corporation
4955 Directors Place
San Diego, CA 92121
Attention: Mr. Patrick Simms

Telephone: 1-858-526-5111
Facsimile: 1-858-526-5554

15.2 Failure of either party to insist upon strict observance of or compliance with all of the terms of this Agreement in one or more instances shall not be deemed to be a waiver of its rights to insist upon such observance in the future or compliance with the other terms hereof.

15.3 Except for the limited agency established in Section 4.6, this Agreement shall not be deemed to establish the relationship of principal and agent, master and servant or a partnership or joint venture of any kind between Fermic and Diversa, and neither party shall be liable to any act of or failure to act by the other party except as expressly provided in this Agreement. Without in any way limiting the foregoing, Fermic will be responsible for any liability derived from the labor relationship with its employees and in no case nor under any circumstances shall Diversa be considered a direct or substitute employer of Fermic or any of Fermic's employees. Fermic agrees to indemnify Diversa from any claims demands, liabilities. suits, costs and expenses (including reasonable attorney's fees) of any kind or nature whatsoever arising out of claims that Diversa has liability with respect to Fermic's employees, whether such claims, demands, liabilities or suits are of a civil, commercial, labor, fiscal or other nature. This provision shall survive termination of this Agreement.

15.4 This Agreement constitutes the entire understanding and supersedes all prior agreements between the parties hereto with respect to the subject matter hereof, including, without limitation, the Original Agreement. The provisions herein shall not be extended or modified except by written agreement between Fermic and Diversa.

15.5 In the event that any provision of this Agreement shall be held to be unenforceable, invalid or otherwise indefinite, the balance of this Agreement shall continue in full force and effect, unless the severance of the portions held unenforceable would reasonably frustrate the commercial purposes of this Agreement, in which case, reasonable efforts will be made to reform this Agreement to achieve such commercial purposes.

15.6 This Agreement is written in the English language and shall be construed accordingly. This Agreement shall be performed, interpreted and enforced under the applicable laws of the State of California other than those provisions governing conflicts of law.

15.7 The parties will use their best efforts to resolve by negotiation any dispute, controversy or claim which may arise in connection with this Agreement. In the event the parties cannot directly resolve such dispute, controversy or claim, the parties agree to be bound by arbitration to occur in Dallas, Texas. The arbitration is to be conducted in English by a single arbitration acceptable to both parties in accordance with the Rules of Conciliation and Arbitration of the international Chamber of Commerce. The arbitration decision shall be binding and final and the local courts shall have no jurisdiction over this matter.

15.8 Except as provided herein, this Agreement may not be assigned by either party without the prior written consent of the other party; provided, however, that, either Party may assign this Agreement to any of its Affiliates, and, unless agreed otherwise by the other Party, this Agreement shall be assigned to any successor of a Party by merger or sale of substantially all of its business to which this Agreement relates. In the event of such merger or sale, no intellectual property of any acquiring corporation that is not a party shall be included in the technology licensed hereunder. This Agreement will be binding upon the successors and permitted assigns of the parties. Any assignment which is not in accordance with this Section will be void.

15.9 During the term of this Agreement, Fermic shall not, and shall not enter into any agreement to, (i) produce enzyme products for any third party or (ii) permit any third party to use Fermic's facilities to produce enzyme products, in each case without Diversa's prior written consent.

15.10 Each party represents to the other that the person signing below on its behalf is legally authorized and empowered to do so under applicable law and that, upon signature by such individual on behalf of such party, this Agreement and any amendments hereto shall be binding upon and enforceable against it in accordance with its terms.

In Witness Whereof the parties have caused this instrument to be executed in duplicate as of the year and date first above written.

Fermic, SA de C.V.

Alessandro Falzoni

/s/ Alessandro Falzoni
Title: Vice President
Date: February 19th, 2004

Diversa Corporation

Patrick Simms

/s/ Patrick Simms
Title: Senior Vice President
Date: 2-23-04

APPENDIX A

Project Scheduledfor Cumulative Fermentor Utilization

Fermentor Scale, M^3	Project Date Required by Diversa	Diversa's Projected Payments to Fermic for Expanded Fermentation Capacity
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
	Total	[…***…]

***Confidential Treatment Requested

APPENDIX B

[…***…]

Exhibit 10.61

*****Text Omitted and Filed Separately with the Securities and Exchange Commission. Confidential Treatment Requested Under 17 C.F.R. Sections 200.80(b)(4) and 240.24b-2**

AMENDMENT TO AMENDED AND RESTATED

FERMENTATION SERVICES AGREEMENT

This amendment ("Amendment") is effective as of the 1st day of August, 2006 between Diversa Corporation, with a place of business at 4955 Directors Place, San Diego, CA 92121 USA ("Diversa") and Fermic, S.A. de C.V., with a place of business at Reforma No. 873- Iztapalapa, 09850 Mexico D. F., Mexico ("Fermic").

RECITALS

Diversa and Fermic are parties to that certain Amended and Restated Fermentation Services Agreement effective February 17, 2004 ("Agreement"). Diversa and Fermic now desire to amend the Agreement.

Now, Therefore, The Parties Agree As Follows:

1. Section 5.7 of the Agreement is hereby deleted in its entirety and replaced with the following:

> **5.7** Pursuant to this Agreement, Expanded Fermentation Capacity will need to be put into operation from time to time, as projected in Appendix A. Diversa and Fermic will agree on design schedule and capital requirements to bring the Expanded Fermentation Capacity online. Fermic will fund the capital requirements for the Expanded Fermentation Capacity; Diversa will reimburse Fermic for such expenditures, based on invoices from Fermic as such expenditures occur, up to a maximum of […***…] ([…***…]%) of such costs. Upon start-up and operation of the […***…] ([…***…]) […***…] fermentor of the Expanded Fermentation Capacity, and upon start up and operation of the […***… ([…***…])…***…] fermentor of the Expanded Fermentation Capacity, Fermic will reimburse Diversa the amounts previously paid by Diversa to Fermic in respect of such Expanded Fermentation Capacity, per fermentor brought into operation, in […***…] ([…***…]) monthly] payments, each payment equal to […***…] ([…***…] $[…***…]) *(i.e.,* […***…] $[…***…] per […***…]) upon start-up and operation of the […***…] fermentor, and an additional […***…] $[…***…] […***…] upon start-up and operation of the […***…] fermentor), starting from the date of Diversa's payment of the first Fermic invoice following the start-up of the […***…] ([…***…]) […***…] fermentor of the Expanded Fermentation Capacity; *provided, however*, that upon start up and operation of the […***…] ([…***…]) […***…] fermentor of the Expanded Fermentation Capacity, Fermic will reimburse Diversa the remaining amounts previously paid by Diversa to Fermic in respect of such Expanded Fermentation Capacity, in […***…] ([…***…]) […***…] payments, each payment equal to […***…] of the difference between (i) […***…] and (ii) […***…] $[…***…] *(i.e.,* […***…] $[…***…]); and *provided further*,

that for each fermentor within the Expanded Fermentation Capacity that is reclaimed by Fermic hereunder, Fermic shall make an additional payment to Diversa of […***…] $[…***…] in addition to the […***…] payments scheduled to be made. All such reimbursements will be made by reduction of the […***…] or to offset amounts paid […***…]; provided, however, that should Fermic elect to terminate this Agreement prior to Diversa having received full reimbursement of the amounts previously paid by Diversa to Fermic in respect of Expanded Fermentation Capacity, Fermic will reimburse Diversa […***…]. Such payment will be payable on the date of termination; provided, however, that Fermic shall make all required interim monthly payments via reduction of the […***…].

2. Exhibit A attached to this Amendment shall replace Exhibit A to the original Agreement.

3. Exhibit B to the original Agreement and any references thereto shall be deleted in their entirety.

4. Section 9.1 of the Agreement is hereby deleted in its entirety and replaced with the following:

9.1 Diversa will pay compensation to Fermic for processing costs and labor involved in fermenting, recovering, packaging and handling the Products, for any structural or other additions made to the Facility, and for all of its other services under this Agreement, as follows: Diversa shall pay Fermic a tolling fee of […***…] $[…***…] per […***…] per […***…] of Fermentation Capacity at […***…] scale, subject to annual adjustment as set forth below, and […***… per […***…] per […***…] of fermentor capacity between […***…] and […***…] capacity for broth processed through the fungal recovery system (i.e., Line 1 as of July 2006), and $[…***…] per […***…] per […***…] of fermentor capacity between […***…] and […***…] capacity for broth processed through the bacterial recovery system (i.e., Line 2 as of July 2006), in each case subject to annual adjustment as set forth below; *provided, however*, that the parties agree to negotiate in good faith an adjustment to the respective […***…] fermentor tolling fees, within a period not to exceed 90 days following start up of the […***…] fermentor, based on anticipated cost savings at the increased fermentation scale, subject to annual adjustment as set forth below. Such tolling rates include variable fermentation fees, reducing with increasing capacity, and constant fees for recovery of $[…***…] per […***…] per […***…], and formulation, storage and quality control of $[…***…] per […***…] per […***…]. Utilization for partial […***…] in excess of […***…] minimum campaigns shall be calculated […***…] on the basis of fermentation days utilized. On an annual basis, beginning July 1, 2007, each of the foregoing tolling fees and tolling rates shall be adjusted for purposes of the fees for the succeeding […***…] ([…***…]) months,] based on the change in the Consumer

Price Index-U.S. City Average, not seasonally adjusted ("CPI") for the United States from July 1 of the preceding year to June 30 of the then-current year, as published by the U.S. Department of Labor. In addition, Diversa will reimburse Fermic for the actual cost of raw materials (including packaging and shipping expenses if applicable) used in the manufacture of Product(s). The parties will agree on the optimal source of raw materials. Diversa shall, in its sole discretion, determine the required specification of all raw materials required for the Product(s).

5. All other terms and conditions of the Agreement shall remain in full force and effect.

In Witness Whereof the parties have caused this Amendment to be executed in duplicate as of the year and day first above written.

FERMIC, S.A. de C.V.	DIVERSA CORPORATION
Alessandro Falzoni	R. Patrick Simms
/s/ Alessandro Falzoni	/s/ R. Patrick Simms
Title: CEO	Title: Sr. Vice President, Operations
Date: 9-21-06	Date: 9-18-06

***Text Omitted and Filed Separately
with the Securities and Exchange Commission.
Confidential Treatment Requested
Under 17 C.F.R. Sections 200.80(b)(4)
and 240.24b-2

APPENDIX A

Project Scheduledfor Cumulative Fermentor Utilization

Fermentor Scale, M3	Project Date Required by Diversa	Diversa's Projected Payments to Fermic for Expanded Fermentation Capacity
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
[…***…]	[…***…]	[…***…]
	Total	[…***…]

***Confidential Treatment Requested

Exhibit 21.1

Subsidiaries

Verenium Biofuels Corporation (Delaware)
Verenium Biofuels Louisiana LLC (Louisiana) a wholly-owned subsidiary of Verenium Biofuels Corporation
Verenium Biofuels Texas LLC (Delaware), a wholly-owned subsidiary of Verenium Biofuels Corporation
Verenium Monkey Hammock Ethanol, LLC (Delaware), a wholly-owned subsidiary of Verenium Biofuels Corporation

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Form S-3 Nos. 333-143894 and 333-147403; Form S-4 No. 333-141392; Form S-8 Nos. 333-31056, 333-75396, 333-107171, 333-142708, 333-145061 and 333-145062) of Verenium Corporation of our reports dated March 16, 2008, with respect to the consolidated financial statements of Verenium Corporation and the effectiveness of internal control over financial reporting of Verenium Corporation, included in this Annual Report (Form 10-K) for the year ended December 31, 2007.

/s/ Ernst & Young LLP

San Diego, California
March 16, 2008

EXHIBIT 31.1

CERTIFICATION
Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934,
as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Carlos A. Riva, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2007 of Verenium Corporation.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2008

/s/ Carlos A. Riva
Carlos A. Riva
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION
Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934,
as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, John A. McCarthy, Jr., certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2007 of Verenium Corporation.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2008

/s/ John A. McCarthy, Jr.
John A. McCarthy, Jr.
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Verenium Corporation (the "Company") on Form 10-K for the period ended December 31, 2007, as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, Carlos A. Riva, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge, that:

(1) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Report and results of operations of the Company for the period covered by the Report.

Date: March 16, 2008

/s/ Carlos A. Riva
Carlos A. Riva
Chief Executive Officer

This certification shall not be deemed "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or the Exchange Act, or otherwise subject to the liability of Section 18 of the Exchange Act. Such certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Verenium Corporation (the "Company") on Form 10-K for the period ended December 31, 2007, as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, John A. McCarthy, Jr., Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge, that:

(1) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Report and results of operations of the Company for the period covered by the Report.

Date: March 16, 2008

/s/ John A. McCarthy, Jr.
John A. McCarthy, Jr.
Chief Financial Officer

This certification shall not be deemed "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or the Exchange Act, or otherwise subject to the liability of Section 18 of the Exchange Act. Such certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.