





DIVERSA

Fueling the Future.

2005 Annual Report



GDIVERSA

Fueling the Future. Today.

TABLE OF CONTENTS

Letter to the shareholders	4
Biotechnology	6
Alternative fuels	8
Ethanol: accelerating America	8
Making ethanol	10
Ultra-Thin [™] enzyme	11
Cellulosic biomass	12
Integrated corn-biorefinery	13
Biodiesel, From bugs to biofuels	14
Specialty industrial processes	15
Luminase TM & Purifine TM enzymes	16
Health and nutrition	17
Phyzyme TM & Quantum TM enzymes	17
MedEv TM antibody optimization	18



Brian

Letter to the

2005 was a year of renewal and focus for Diversa. We have instituted significant organizational and strategic business changes while retaining our core strengths that will drive our current and future business opportunities forward. We remain unwavering in our belief that our protein discovery and evolution technologies can "transform industries through great science." Toward this end, and following a comprehensive review last year of all of our products, programs, and personnel, we have decided to focus our development and commercialization efforts on a more refined set of highvalue opportunities, namely:

- enzymes for the production of alternative fuels;
- enzymes for specialty industrial processes; and
- enzymes and antibodies to improve health and nutrition.

By "fueling the future, today," we intend to reach profitability in 2008.

CREATING A REVOLUTION IN ALTERNATIVE FUELS PRODUCTION

The production of alternative fuels, or biofuels, from renewable agricultural resources is one of the most exciting areas that Diversa is currently pursuing. The convergence of societal and governmental demands to reduce dependence on foreign oil and improve the environment has created unprecedented demand for the breakthrough technology necessary to make biofuels a reality. We believe our world-class enzymes can help foster a revolution in biofuel production.

Since 1998, Diversa has been developing enzymes to enable the more cost-effective production

of biofuels. In 2005, in collaboration with our distributor Valley Research, inc., we launched Ultra-Thin[™] enzyme, our first product in the alternative fuels arena. Ultra-Thin enzyme is a new and more cost-effective enzyme for converting corn into fuel ethanol.

We also achieved a key technical milestone under our Integrated Corn-Based Biorefinery program with DuPont Bio-Based Materials by developing a cocktail of high-performance enzymes that met the performance targets for conversion of corn stover set by the U.S. Department of Energy (DOE). The goal of this \$38 million program, which was initiated in 2003 and is being cofunded by the DOE, is to develop a cost-effective process to convert the entire corn plant to fermentable sugars for

production of ethanol and other chemicals.

We believe that ultimate success in the costeffective production of ethanol from biomass will require the development of collections of multiple enzymes to break down cellulosic biomass such as agricultural and forest residues, municipal solid waste and dedicated energy crops. We believe that Diversa's expertise in enzyme discovery and evolution makes us uniquely qualified to achieve the significant advances in enzyme development that will be necessary to make "cellulosic ethanol" economically viable.

TRANSFORMING SPECIALTY INDUSTRIAL PROCESSES

In the area of specialty industrial processes, we are focusing on non-commodity, high-value applications where the potential exists for an enzyme or enzymatic process to enable significant breakout opportunities.

The production of alternative fuels, or biofuels, from renewable agricultural resources is one of the most exciting areas that Diversa is currently pursuing

Shareholders

In 2005, our direct sales force for LuminaseTM enzymes, a product line for enhanced pulp bleaching, expanded mill trials with the goal of positioning Luminase for commercial sales in 2006.

In addition, we continued to validate, with our partners, the commercial scale performance of our Purifine[™] enzyme, for more efficient refining of edible oils. Our regulatory team is advancing this product along the FDA regulatory path toward our goal of commercialization in 2007.

HEALTH AND NUTRITION: IMPROVING THE WELL-BEING OF ANIMALS AND HUMANS

Feed Enzymes. In 2005, Diversa enjoyed significantly increased sales volumes of PhyzymeTM XP, our first-generation phytase feed enzyme sold through our collaboration with Danisco Animal Nutrition. In Q2 of 2005, we began receiving our first revenues from our 50/50 cumulative profit share from sales generated by Danisco of Phyzyme XP.

Antibodies. In 2005, Diversa announced an agreement with Merck to collaborate on the development of therapeutic antibodies for a key target by proprietary applying our MedEvTM platform. We have demonstrated across numerous programs that our platform for antibody optimization provides а robust method for developing next-generation versions of improved antibodies. We expect to maintain our antibody optimization collaborations with Merck, Medarex, and Xoma, and we will continue to pursue selected partnerships in this area.

DISCOVERING AND EVOLVING OUR FUTURE

Historically, we have had a very broad focus, reflecting an enthusiasm for the power and applicability of Diversa's protein discovery and evolution platform. With our recent corporate reorganization, we have taken key steps to concentrate Diversa's substantial resources and expertise on a smaller set of market opportunities that we feel will create the greatest shareholder value. At Diversa, we plan to build upon the great work of our past by seeking to transform our technical accomplishments into truly ground-breaking products.

Edward T. Shonsey CEO Diversa Corporation

Natural Gas Propane

Discovering Breakthrough Enzyme Products from Nature

TAPPING INTO THE VAST GENETIC RESERVOIR PROVIDED BY NATURE'S MOST ABUNDANT RESOURCE: MICROBIAL BIODIVERSITY

t is Diversa's mission to solve the commercial problems others cannot, by harnessing the power of enzymes through our protein discovery and evolution platforms.

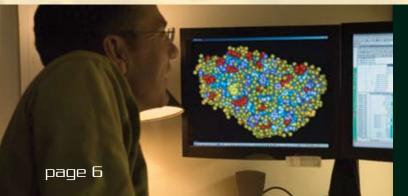
DISCOVERY

Microbes, such as bacteria and fungi, are the world's most abundant and varied organisms and can be found in almost every ecosystem, including oceans, deserts, rain forests and arctic regions. Through generations of natural selection in diverse environments, microbes developed characteristics have that are broader and more varied than those encountered in plants or animals. These characteristics, which include the ability to survive in extreme temperatures, tolerate high or low pH, and withstand high or low salt environments, are the result of the highly diverse genetic material found in the microbial world.

In the quest to discover novel enzyme-based solutions for unmet market needs, Diversa taps into the vast genetic resources of the microbial world by venturing into varied and often hostile ecosystems, such as volcanoes and deep-sea hydrothermal vents, to collect the microbial genes that produce enzymes. Because the harsh temperature and pH conditions in which these "extremophiles" live often mimic those found in today's rugged industrial processes, they are a rich source of potential products. With proprietary technologies, we extract microbial DNA directly from collected samples to avoid the slow and often impossible task of trying

to culture individual microbes in a laboratory. With high-throughput screening, we then mine our collection of billions of "extreme" microbial genomes in search of unique enzymes. Once identified, Diversa can improve these enzymes for targeted applications using DirectEvolution[®] protein evolution technologies that have been successfully used in the development of dozens of products and product candidates.

In addition to extracting microbial DNA directly from samples, Diversa has recently developed High Throughput CulturingTM technology (HTCTM). This method rapidly isolates and cultivates mixed populations of microorganisms, which traditionally has been a more difficult and time-consuming task prior to HTC.



ENZYMES-NATURE'S SPARK PLUGS

Enzymes are specialized proteins that speed up or make possible chemical reactions that are essential in all living systems. Enzymes are so powerful that one single enzyme can process up to a million or more molecules every second. The world's largest source of unique enzymes is contained within the microbes found in extreme ecosystems and other diverse environments.

DEVELOPING HIGH-PERFORMANCE PROTEINS WITH INDUSTRY-LEADING LABORATORY EVOLUTION TECHNOLOGIES

Proteins, such as enzymes and antibodies, are large, complex molecules made up of a sequence of smaller subunits, called amino acids. There are 20 different naturally occurring amino acids, each having unique chemical properties. The order and type of amino acids in a protein, defined by a cell's DNA, dictate its particular function. A change in just one single amino can greatly affect the function of a protein.

EVOLUTION

Diversa's patented state-ofthe-art laboratory evolution technologies, called the DirectEvolution[®] platform, enables the optimization of proteins at the DNA level. Our platform consists of two complementary methods: Gene Site Saturation



Mutagenesis[™] (GSSM[™]) and GeneReassembly[™] technologies. To date, we have successfully optimized enzymes and antibodies in over 40 projects using our DirectEvolution platform.

Gene Site Saturation Mutagenesis technology is used to substitute every single amino acid in a protein's chain to all other potential amino acids, one position at a time. This allows us to generate the greatest diversity of proteins that differ from the starting protein by a single amino acid in an unbiased manner. We mine these proteins produced by GSSM technology for improvements in targeted characteristics. For example, we have used this technology to increase an enzyme's ability to work at high temperatures or extended pH ranges, or improve an enzyme's ability to break down cellulose into simple sugars.

Our ultra-high throughput screening technologies are capable of processing up to 1 billion samples per day, which greatly facilitates our discovery and development efforts.

GeneReassembly technology combines the best attributes of parental genes, such as those developed by the GSSM method, to produce "super progeny." For example, we have used this platform to blend the best attributes of several parental antibodies, including stability and binding affinity, to form a new and improved antibody

Diversa improves enzymes for targeted industrial applications using DirectEvolution® protein optimization technologies far superior to the starting antibody. This is useful for developing next-generation therapeutic and diagnostic proteins. Diversa's GeneReassembly method represents the next generation of gene-blending evolution technologies.

We believe Diversa's suite of DirectEvolution technologies provides significant competitive advantages, including the ability to generate a broad amount of genetic sequence diversity, the ability to make fine changes across an entire gene/protein sequence, and the freedom to not be restricted by sequence similarities when blending starting genes.



Ethanol: Accelerating America to a Cleaner, Safer Future

FROM FORMULA ONE RACE CARS TO FLEXIBLE FUEL VEHICLES, ETHANOL IS FAST BECOMING THE FUEL OF CHOICE

e see it on the news. We feel it at the pump. Never has there seemed to be a greater desire in the U.S. to curb our dependence on foreign oil and look to viable sources of alternative fuels than today.

What is fueling this interest? Almost two-thirds of our crude oil supply is imported. The price has been persistently high in recent years – a trend that shows no signs of reversing in the near future. Global demand, particularly from the growing economies of China and India, is straining production capacity. Unrest in the Middle East, Africa, and other oil-producing regions of the world threatens our petroleum supply and our security. U.S. petroleum refining capacity is insufficient.

The use of alternative fuels gained additional importance after President George W. Bush highlighted their use as part of a plan to cut U.S. dependence on Middle Eastern oil by 75% in the next 20 years. The "move beyond a petroleum-based economy," according to the President, will require breakthroughs in technology to end our "addiction to oil." It is Diversa's goal to provide the enabling enzyme technology to cure America's "addiction to oil" by making biofuels, such as ethanol and biodiesel, an economic reality.

ETHANOL-BACK TO THE FUTURE

Humans have used ethanol, or ethyl alcohol, as the intoxicating ingredient in alcoholic beverages since before recorded history. Archeologists have even discovered dried residues of ethanol on 9,000-year-old pottery in northern China.

Ethanol's history as a transportation fuel can be traced back to Henry Ford. In the 1880s, Ford built one of his first automobiles - the quadricycle and fueled it on ethanol. Ford's early Model Ts were flexible fuel vehicles (FFVs), able to run on ethanol or gasoline with a carburetor

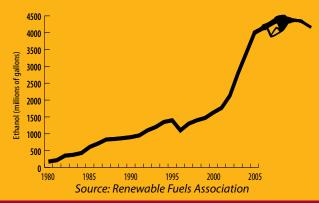
adjustment.

Today, we see a worldwide resurgence in the popularity of fuel ethanol. Its largest single use is as a motor fuel. Ethanol is most commonly used to increase octane and improve the emissions quality of gasoline. Because of its beneficial performance characteristics, the Indy Racing League, home of the Indianapolis 500, will fuel their 650-horsepower cars with 100% ethanol in 2007.

Brazil has long been the world's leader in fuel ethanol, spurred by the OPEC oil embargos of the 1970's. The Brazilian ethanol industry, based on sugarcane-fed-biorefineries, produced over 4 billion gallons in 2005, enough to satisfy about 40% of its vehicle fuel demands. Most new cars sold in Brazil are FFVs that can run on ethanol, gasoline, or any blend of the two.

The United States' fuel ethanol industry, based largely on corn, is poised to exceed Brazil's production. In 2005, 95 plants in the U.S. produced roughly 4 billion gallons, with plans





The Renewable Fuels Standard has mandated that the U.S. increase biofuel production to 7.5 billion gallons per year by 2012



NUMBER OF U.S. ETHANOL PLANTS



to increase capacity by 1.5 billion gallons in 2006. This, however, represents less than 2% of our current total oil use in the transportation sector in 2005.

With the enactment of the Energy Policy Act of 2005 and Renewable Fuels Standard (RFS) in 2005, the U.S. has made an historic commitment to renewable fuels, such as ethanol and biodiesel. In particular, the RFS has mandated that the U.S. reduce crude oil imports by 2 billion barrels and increase biofuel production to 7.5 billion gallons per year by 2012.

The Volumetric Ethanol Excise Tax Credit is also contributing to the growing availability of ethanolbased fuel blends. In addition, many states have either implemented or are considering legislation to capitalize on the economic, environmental, and energy security benefits of renewable fuels by requiring their use.

According to the National Renewable Energy Laboratory, both producing and burning ethanol are better for the environment than producing and burning gasoline. Gasoline was shown to have a negative energy balance; it takes more energy to make than it provides. In contrast, ethanol has a positive energy balance, producing more energy than it takes to manufacture. In addition, biofuels could reduce our greenhouse gas emissions by 1.7 billion tons per year—equal to more than 80% of transportationrelated emissions in 2002.

Currently, over 30% of all gasoline sold in the U.S. is blended with 10% ethanol, nicknamed "gasohol." But continued efforts to stretch U.S. gasoline supplies have invigorated interest in E85, a blend of 85% ethanol and 15% gasoline, as well as the greater production of flexible fuel vehicles capable of utilizing this fuel. Presently, approximately 6 million cars in the U.S. are FFVs, designed to run on E85 or gasoline. Approximately 650 retail gas stations pump E85, a greater than 300% increase from 2004.

ALTERNATIVE FUELS



Making Ethanol: Driving New Fuel Production with Enzymes

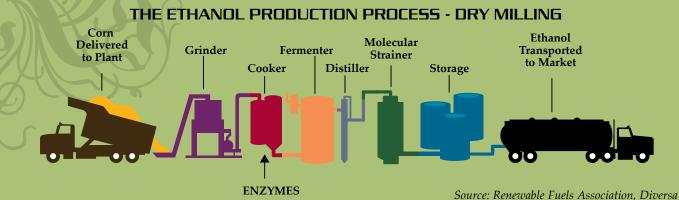
USING BIOTECHNOLOGY TO TRANSFORM PLANTS INTO ETHANOL

n theory, any plant source containing sugar, starch, or cellulose can be converted to ethanol. The greatest production hurdle is the conversion of the plant material, called feedstocks, into simple sugars. Once the sugars are available, they can be easily fermented and distilled into ethanol by a process similar to making beer or whiskey.

In Brazil, with its abundance of sugar cane, ethanol is relatively simple to make. Producers mechanically extract cane juice, which is basically sugar, from the harvested plants, and ferment ethanol directly by using yeast. Enzymes are of little use for process improvements.

In the U.S., however, where corn is the chief feedstock, enzymes play a key role in transforming corn starch into ethanol. Starch is simply a chain, or biopolymer, of sugars such as glucose. The enzyme alpha-amylase helps transform the corn into a liquid slurry, in a process called liquefaction, while glucoamylase converts the starch into sugar, in a process called saccharification. Diversa's recently





launched Ultra-Thin[™] enzyme, an alpha-amylase optimized to perform at process-critical temperature and pH conditions, provides ethanol producers with a new ability to substantially increase production without requiring any changes to their existing plant infrastructure.

The production of ethanol worldwide rose substantially in 2005, totaling more than 12 billion gallons. But this is only the jumping-off point. In order to significantly reduce the worldwide use of petroleum-based fuels, hundreds of billions of gallons of ethanol will have to be available annually. Ethanol production will need to increase tremendously to reach these levels. Current processes will need to become more efficient. New processes will have to be developed. New feedstocks will need to be utilized. Of particular interest is the use of cellulosic biomass as a feedstock. These are prime areas for the application of Diversa's powerful technologies for new enzyme development.



Ultra-Thin™ Enzyme: Providing More Efficient Ethanol Production

THE NEXT-GENERATION ENZYME TO IMPROVE STARCH PROCESSING

Itra-Thin[™] enzyme is a new product designed to significantly improve the efficiency and economics of ethanol production. Developed by Diversa and marketed by Valley Research, inc. under the Valley "Ultra-Thin" brand, this new product dramatically lowers the viscosity of the corn starch stream and operates at a higher temperature and a lower pH than other commercially available enzymes, which offers potential throughput advantages and cost savings.

Ultra-Thin enzyme is a novel, nextgeneration alpha amylase enzyme designed to offer ethanol producers



superior liquefaction performance. 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 significantly reduce the starch stream viscosity and do not operate at an optimal pH, limiting plant capacity and requiring costly process adjustments. Ultra-Thin enzyme is being distributed by Valley Research. Diversa manufactures Ultra-Thin enzyme under its agreement with Fermic S.A. de C.V.

CORN THAT SELF-PROCESSES AIDS ETHANOL PRODUCTION

Our partner, Syngenta, is developing a genetically modified strain of corn that produces high levels of alpha amylase, an efficient enzyme developed by Diversa under our collaboration with Syngenta. By using a transgenic strain of corn that efficiently makes its own processing enzyme, ethanol producers could potentially realize substantial savings in their cost of production.

Ultra-Thin™ enzyme increases the throughput at ethanol plants by dramatically lowering the viscosity of corn starch under key operating conditions



Cellulosic Biomass: Transforming Plant Waste into Biofuel

ENZYMES ARE KEY TO MAKING THE PROCESS ECONOMICAL

ellulosic biomass, which includes the stalk, stems, and branches of most plants, is a highly undervalued and underutilized energy asset. Many forms of cellulosic biomass can contribute to biofuels, including grain crops and switch grass, or crop residues like corn stalks, wheat straw, rice straw, grass clippings, and wood residues. These cellulosecontaining natural waste products are widely abundant and can be sustainably produced. In addition to fuel, cellulosic biomass can be converted into chemicals used



SOURCES OF CELLULOSIC BIOMASS

- Agricultural residues: leftover crop material, such as the stalks, leaves, and husks of corn plants
- Forestry wastes: chips and sawdust from lumber mills, dead trees, and tree branches
- Energy crops: dedicated fast-growing trees and grasses such as switch grass
- Municipal solid waste: household garbage and paper products
- Food processing and other industrial wastes: black liquor, a paper manufacturing by-product



to manufacture products that would otherwise be made from petrochemicals, such as plastics, adhesives, and paints.

The Natural Resources Defense Council recently reported that cellulosic ethanol could supply half of the U.S. transportation fuel needs by 2050, without decreasing production of food and animal feed.

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.

Diversa's new enzyme technologies are addressing this challenge with the goal of fundamentally changing this paradigm. We are developing enzyme cocktails to convert different types of cellulosic biomass into fermentable sugars as part of an overall objective of developing a new, more cost-effective process. In 2005, as the first key step toward this goal, we developed a set of candidate enzymes under our Integrated Corn-Based Biorefinery program led by DuPont, a U.S. Department of Energy-sponsored consortium to develop an economical, commercial-scale process to convert starch and cellulosic biomass to fuel ethanol and other value-added chemicals.

SUGAR STARCH BIOMASS FEEDSTOCK **TECHNOLOGY** present present future CELLULOSIC BIOMASS (e.g., corn stover, switchgrass, wheat PRETREATMENT stalks, sorghum) acid, ammonia fibe extraction, novel enzyme cocktails) STARCH (e.g., corn, wheat grain, rice, potatoes) **FN7YMFS** (to make sugars fermentable, *e.g.* alpha-amylase. SUGAR glucoamylase) (e.g., cane juice) FERMENTATION (veast, bacteria) ETHANOL (blend, E85)

GENERAL SCHEMATIC FOR PRODUCING ETHA-NOL FROM SUGAR, STARCH, AND BIOMASS



Integrated Corn-Based BioRefinery

MOVING FROM A HYDROCARBON-BASED ECONOMY TO A CARBOHYDRATE-BASED ECONOMY

upont Bio-Based Materials is leading a consortium, known as the Integrated Corn-Based BioRefinery (ICBR) program, to demonstrate the feasibility and practicality of converting corn-based biomass to sugars for production of ethanol and other chemicals.

Diversa's role in this six-year alliance is to discover and develop novel enzymes for the production of fuel ethanol and DuPont Bio-PDO[™] for textiles and other applications, and a range of value-added chemicals from renewable resources. New and improved enzymes are required, as the performance and flexibility of current enzymes available for this application from other sources fall well short of providing an economical, practical solution to current energy needs.

As the leader of a \$38 million consortium to develop a biorefinery, DuPont will receive \$19 million in matching funds from the U.S. Department of Energy (DOE) over four years. Diversa receives research funding from DuPont and is entitled to milestone payments and royalties on any new products developed under the collaboration. In July 2005, Diversa announced that it had successfully developed a set of candidate enzymes under the ICBR program that exceeded the initial performance targets set by the DOE, which were established by comparison to the performance of existing commercial enzymes for conversion of corn biomass. This achievement triggered two milestone payments to Diversa totaling over \$500,000—one for meeting the DOE requirements and the second for substantially exceeding the DOE requirements.

Based in part on Diversa's successful enzyme development activities, the ICBR program has advanced to the next phase, which is focusing on achieving key economic objectives.





ICBR PARTNERS

OHN DEERE

ALTERNATIVE FUELS Biodiesel: A Potential Future Opportunity

From Bugs to Biofuels



VEHICLES RUNNING ON FUEL MADE FROM EDIBLE OILS AND FATS

Biodiesel, a clean-burning alternative fuel, is produced from edible oils, such as those made from vegetables, seeds, and animal fats. This product can be used by itself or blended with petroleum-based diesel fuel for use in unmodified diesel engines.

According to the National Biodiesel Board, biodiesel and biodiesel blends reduce emissions while offering similar performance to petroleum diesel. Biodiesel has the highest energy balance of any liquid fuel currently produced. For every unit of energy used to make biodiesel, 3.2 units are gained.

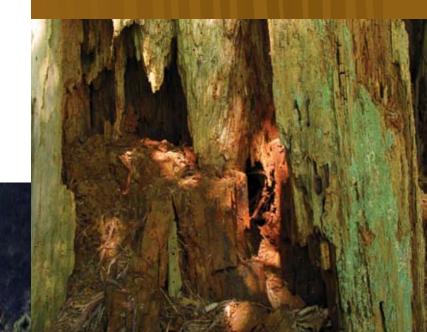
More than 600 filling stations and 1,500 petroleum distributors make biodiesel available in the U.S. More than 600 U.S. fleets use biodiesel, including government, military, commercial, and school bus fleets. Europe has been using biodiesel successfully for over a decade and now has over 1,500 stations offering this fuel.

We are currently in the process of evaluating the use of our PurifineTM enzymes in increasing the efficiency of oilseed refining for the more efficient production of biodiesel.

TERMITES MAY HOLD THE SECRET TO THE PRODUCTION OF CELLULOSIC ETHANOL

ermites ingest wood and convert it to fermentable sugars by exploiting the metabolic capabilities of microbes living symbiotically in their hind guts. The process is fast and efficient – typically achieving 95% conversion in 24 hours or less.

By mining the termite digestive system, Diversa expects to identify new, highly efficient enzymes that can potentially be adapted to process cellulosic biomass into sugars to make cellulosic ethanol at a large scale. This project is being carried out in partnership with the DOE's Joint Genome Institute, InBio, and the California Institute of Technology.





Diversa's Enzymes Catalyze a Revolution in Specialty Industrial Processes

BIOTECHNOLOGY CAN TRANSFORM INDUSTRIAL AGE TECHNOLOGIES TO MORE EFFICIENT, CLEANER PROCESSES

orporate social responsibility has moved many organizations to develop more environmentally friendly processes and products. Industries such as those that produce energy, paper, and edible oils, are looking to improve process economics. With our extensive library of new enzymes and powerful discovery and evolution technologies, Diversa is developing eco-sensitive, enzymatic bioprocesses to meet market needs and replace inefficient, often environmentally unfriendly chemical processes.



Diversa develops efficient, eco-sensitive enzymatic bioprocesses



Enzyme Products for Greener, More Efficient Industrial Processes



Luminase[™]

LUMINASE™ ENZYMES IMPROVE THE COST AND QUALITY OF PULP PROCESSING WITH ECO-SENSITIVE BIOTECHNOLOGY uminase[™] enzymes, a new, robust brand of xylanases, enhance the reactivity of pulp fiber to bleaching chemicals, such as chlorine dioxide, chlorine, and hydrogen peroxide. In the past, the pulp and paper industry has had only moderate success using previous generation xylanases because of their ineffectiveness in the harsh processing conditions of the mill.

As a next-generation line of products, Luminase enzymes not only substantially reduce the need for bleaching chemicals, they remain active over a wider range of temperature and alkalinity (pH) compared to previous enzymes, so they can be utilized by more pulp and paper mills. Luminase enzymes also provide greater operational efficiencies, as they work faster than previous enzymes and thus require less retention time. In addition, Luminase enzymes are effective for most types of pulp, thereby expanding the utility and benefit to the mill.

In 2005, Diversa's specialty sales force enrolled key pulp mill trials for Luminase PB-100 with the goal of seeding 2006 for sales growth. We intend to develop line extensions of additional Luminase enzymes that are capable of operating cost-effectively at higher temperature and pH ranges, in order to increase the number of mills that can be addressed by one or more Luminase enzymes, with product launches planned for 2006.



PURIFINE

PURIFINE[™] ENZYMES IMPROVE THE EFFICIENCY OF EDIBLE OIL REFINING WHILE REDUCING THE NEED FOR HARSH CHEMICALS

iversa has developed PurifineTM enzymes to create new value in the \$20 billion global edible oil market. It is estimated that in 2005 over 120 million metric tons of edible oils were produced worldwide, the majority from soybeans, palm, and canola. Like many traditional industrial processes, edible oil production relies largely on mechanical and chemical means to generate product. To convert oilseed to edible oil, the seeds must go through several processing steps: oil extraction, refining, and modification.

Through proprietary discovery and evolution technologies, Diversa is advancing key product candidates under the Purifine brand designed to improve the efficiency of edible oil refining while reducing the need for harsh chemicals.

Diversa has initiated the regulatory process for the first of its Purifine enzymes and is validating performance characteristics with key industry leaders in anticipation of a 2007 product launch.



Designer Phytase Feed Enzymes Improve Animal Health

phyzyme хр

MORE EFFICIENT MEAT AND EGG PRODUCTION

nimal feed is the biggest single cost for the poultry and pig producer; however, poultry and pigs do not digest approximately 70% of the phosphorus, which is needed for bone growth, that is naturally contained in many feed ingredients (such as cereal grains, oil seed meals, and their by-products). In order to satisfy the animals' nutritional requirements, producers traditionally have added expensive sources of inorganic phosphorus to their feed. Diversa developed PhyzymeTM XP phytase to improve the digestibility of phosphorus and other nutrients naturally contained in animal feed. This provides producers with the opportunity to reduce feed costs by reducing usage of inorganic phosphorous, while maintaining poultry and pig growth.

IMPROVING THE ENVIRONMENT

Undigested phosphorus excreted by poultry and pigs frequently runs off into streams, rivers, and oceans, increasing the risk of water pollution that can lead to algae overgrowth and presenting a threat to safe drinking water sources.

Increasingly, governments have mandated limits on the amounts of phosphorous released into the environment. By using Phyzyme XP phytase, producers can reduce the amount of phosphorous excreted into the environment and safeguard water supplies.

SUPERIOR PERFORMANCE

Phyzyme XP phytase is highly efficient at releasing phosphorus, calcium, and other nutrients from naturally occurring animal feed ingredients. Trials have shown that Phyzyme XP offers superior performance compared to competitor phytases sold in the U.S.

Phyzyme XP phytase is available for sale through Danisco Animal Nutrition. More information can be found at www.danisco.com/animal nutrition.



A NEXT-GENERATION PHYTASE

nder a joint program with Syngenta, Diversa developed QuantumTM phytase, a next generation thermostable phytase, providing poultry and pig producers with the means to improve the economics of animal care and decrease phosphate pollution. Results from more than 50 poultry and pig feed trials demonstrate Quantum phytase's consistently high performance in a wide variety of diets.

Quantum phytase is sold in several countries including Mexico and Brazil and is currently under regulatory review in other countries, including the U.S. To obtain more information, visit www.syngenta.co.uk.



BENEFITS OF ADDING PHYZYME™ XP TO PIG AND POULTRY FEED

- Lower feed costs less inorganic phosphorous and more meat and eggs from less feed
- Better environment reduces the risk of phosphorus runoff into water sources

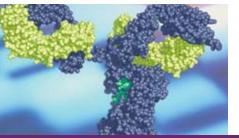


Comprehensive Antibody Optimization Technology

∂ MedEv[™]

iversa's MedEvTM Medicinal Evolution platform is the industry's most comprehensive and non-biased technology to optimize antibodies. By enabling the optimization of key properties of a candidate therapeutic or diagnostic antibody, the use of this technology increases the likelihood of success in clinical and commercial outcomes while enabling new patent positions.

Through multiple internal and partnered programs, Diversa's antibody optimization technologies



DELIVERING SUPERIOR ANTIBODIES

have demonstrated utility in improving a variety of properties, includingbindingaffinity, specificity, effector functions, expression levels, stability, and solubility.

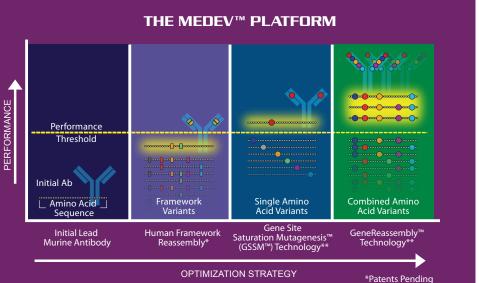
THE MEDEV[™] PLATFORM

Three comprehensive protein engineering techniques are employed to create the MedEvTM antibody optimization process: Human Framework ReassemblyTM (HuFRTM), Gene Site Saturation MutagenesisTM (GSSMTM), and GeneReassemblyTM technologies.

The MedEv platform is based on the same powerful laboratory evolution engine that powers Diversa's enzyme optimization technology.

Diversa's HuFR technology reshapes non-human antibodies into a human framework in order to make the antibodies more human-

**Patented



like, which can potentially result in a more favorable side-effect profile. This is accomplished by combining a proprietary library of human framework regions with the Complementarity Determining Regions of a parental non-human These antibody. human-like antibodies can be further optimized using Diversa's GSSM approach, which creates a library of single point mutations by incorporating each of the 20 amino acids at every position along a protein's sequence, one at a time. We utilize our GeneReassembly technology to combine the best GSSM variants into a single gene in order to create a potentially superior antibody.

In 2005, Diversa announced an antibody optimization agreement with Merck to develop novel therapeutic antibodies by applying Diversa's MedEv platform.

Diversa also announced in 2005 the achievement of a milestone with XOMA, a leading biopharmaceutical company engaged in therapeutic antibody development. Under the agreement, Diversa was able to generate an optimized antibody that binds with sub-picomolar affinity to an undisclosed XOMA target.

In 2005, we also received biodefense funding from the National Institutes of Health and the U.S. Department of Defense to develop optimized antibodies for Rapid Antibody-Based Biological Countermeasures.

DIVERSA CORPORATE INFORMATION

CORPORATE HEADQUARTERS

Diversa Corporation 4955 Directors Place San Diego, CA 92121-1609 p/858.526.5000 f/858.526.5551 e/information@diversa.com

MANAGEMENT

Edward T. Shonsey Chief Executive Officer

Anthony E. Altig Chief Financial Officer

William H. Baum Executive Vice President

R. Patrick Simms Senior Vice President, Operations

BOARD OF DIRECTORS

James H. Cavanaugh, Ph.D. (Chairman) President, HealthCare Ventures LLC

Peter Johnson Former CEO of Agouron Pharmaceuticals, Inc.

Fernand Kaufmann, Ph.D. Former Senior Executive, The Dow Chemical Company

Mark Leschly Managing Partner, Rho Capital Partners, Inc.

Melvin I. Simon, Ph.D. Anne P. and Benjamin E. Biaggini Professor of Biological Sciences, California Institute of Technology

Cheryl A. Wenzinger Former Audit Partner, Deloitte & Touche LLP

STOCKHOLDER INFORMATION

Annual Meeting of the Stockholders The 2006 annual meeting will be held at 1:30 p.m. on Thursday, May 11, 2006 at the offices of Diversa Corporation in San Diego, CA

Stock Information

Diversa's Common Stock is traded on the National Market System of the National Association of Securities Dealers Automated Quotation System (NASDAQ) under the symbol "DVSA"

Transfer Agent and Registrar American Stock Transfer & Trust Company, Brooklyn, NY

Independent Accountants Ernst & Young LLP, San Diego, CA

Corporate Counsel Cooley Godward LLP, San Diego, CA

Investor Information

Diversa's filings with the Securities and Exchange Commission are available to stockholders, free of charge, upon request to the Investor Relations Department or through Diversa's website, www.diversa.com. They are also available through the SEC's EDGAR site on the Internet at www.sec.gov.

ACKNOWLEDGEMENTS

Diversa wishes to thank the Regional Transportation Center, Pearson Ford, the Renewable Fuels Association, Badger State Ethanol, and BIO for their contributions to the production of this annual report.

DESIGN Michael Kulwiec, Diversa Corporation mkulwiec@diversa.com mkulwiec@san.rr.com

PHOTO CREDITS

Laboratory and Ethanol Station © Lyle Detwiler, lyledetwiler@hotmail.com

Kamchatka © Frans Lanting, www.lanting.com Clouds © Pamela Kulwiec, pkulwiec@san.rr.com Forward-Looking Statements. Statements made in this document that are not strictly historical are "forward-looking" and involve a high degree of risk and uncertainty. These include statements related to the potential advantage, benefits, and capabilities of Diversa's technologies, Diversa's and its collaborators' abilities to develop effective and commercially viable product candidates and products, the potential davantage, benefits, and capabilities of Diversa's and its collaborators' products and product candidates, the timing for commercialization of Diversa's and its collaborators' products and product candidates, the timing for commercialization of Diversa's and its collaborators' products and product candidates, the timing for Diversa's and its collaborators' products and product candidates, but eras is a stategies and its ability to effectively execute these to create shareholder value, and the timing for Diversa's achieving profitability, if ever, all of which are prospective. Such statements are only predictions, and actual events or results may differ materially from those projected in such forward-looking statements. Factors that could cause or contribute to differences include, but are not limited to, risks involved with Diversa's new and uncertain technologies, risks associated with Diversa's dependence on existing collaborators and its collaborators to commercialize products (including by obtaining any required regulatory approvals) using Diversa's technologies and the timing for launcing any commercialized products, the ability of Diversa and its collaborators to market and sell any products that it or they commercialize, the development or availability of competitive products or technologies, and the future ability of Diversa is flings with the Securities and Exchange Commission, including, but not limited to, Diversa's fundad Report on Form 10-K for the year ended December 31, 2005. These forward-looking statements speak only as of March 15, 2006. Diversa expressly disclains any intert or oblig

