*M*axygen

2000 ANNUAL REPORT

Maxygen

Maxygen is focused on optimizing genes and proteins for high-value commercial applications across a broad range of industries.

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one/ Introduction

Maxygen is the leader in the evolution and optimization of genes and proteins for high-value commercial products. Our platform technologies are broadly applicable to many multi-billion dollar industries and allow us to rapidly generate many product leads. We have the dominant patent position in recombination-based directed molecular evolution. We have rights to more than 40 issued patents and over 450 pending patent applications. Today we are pursuing more than 40 potential products on our own and with 11 of the world's leading companies in our major target markets of protein pharmaceuticals, vaccines, chemicals, and agriculture. We are working to create the biotechnology company of the future with a balanced stream of high-value products.

Over millions of years nature has generated tremendous diversity of life. This genetic diversity is primarily accomplished via the process of sexual recombination.

Using the natural process of sexual recombination, Maxygen's technologies have made it possible to generate commercially relevant genetic diversity in weeks to months.

In the mid 1800s, Henry Walter Bates observed a close resemblance in color patterns and even in superficial morphology between butterfly species that are palatable to bird predators and other butterfly species that birds find extremely unpleasant or even harmful to eat. By mimicking the noxious species, the harmless ones gained protection from predation despite their palatability.

Maxygen's technologies help us to improve positive genetic traits for commercial applications in protein pharmaceuticals, vaccines, chemicals and agriculture products. We seek to create therapeutics that are more effective against disease and have fewer side effects, chemical products that are more efficient and generate less waste, and agriculture products with higher yield and increased nutritional qualities.

Traditional drug development and biotechnology research is like searching for “a needle in a haystack.” It typically takes tens to hundreds of millions of dollars and many years searching for one compound to take into the development pipeline.

For each product opportunity Maxygen’s technologies generate multiple lead candidates to take into the development pipeline. It often takes us only a few months to identify product candidates at a fraction of the cost of traditional product candidate discovery.

two/ To Our Shareholders

The year 2000 was a year of exceptional accomplishment at Maxygen and an interesting one for the biotechnology industry. The biotechnology industry was dominated by two major themes; genomics and the stock market. The worldwide genomics effort received a huge amount of attention and almost everyone, including President Clinton and Prime Minister Blair, had something to say about the subject. Our view is very clear: the business challenge that is faced by the genomics industry is how to make real products from the wealth of genetic information that is now available to mankind. We believe that we have clearly validated that we have a unique platform that leverages the world's existing knowledge on genes to create many proprietary high value product candidates at relatively low cost and in a relatively short time frame.

The stock market in 2000 is something that neither we nor the world in general will easily forget. We are pleased to have successfully completed a follow-on offering in March, close on the heels of our IPO. These two transactions raised over $230 million dollars for Maxygen and give us tremendous financial strength from which to advance our products and build tremendous long-term sustainable value.

In 2000, we exceeded the aggressive goals that we set for ourselves in all four parameters that we believe are critical to our success as a company: Products, Partners, Patents and People. I have described below our accomplishments in each of these areas as well as summarized our goals for the immediate future.

Products. A technology is only as good as the products that it creates. We are committed to advancing products towards commercialization both with leading companies in our target markets as well as advancing products internally for higher potential. One of our biggest challenges is selecting from the almost limitless number of product opportunities made accessible via the use of our technologies. Balancing the risk-reward calculation is difficult because our technology works with such high efficiency! In each of our four business areas, business criteria rather than technical limitations drive the allocation of our resources.

Last year we were delighted to advance seven potential products into development, five with collaborators (Pfizer, Lundbeck, DuPont, Novozymes and DSM) and two on our own. The advancement

of these product candidates validates the power and efficiency of our technologies and demonstrates our ability to deliver to our collaborators. We continue to pursue over 40 potential product candidates in our pipeline and we expect to announce the advancement of another five products into development by the end of 2001.

Partners. We are committed to partnering as the best way to fully exploit the breadth of applicability of our technologies via leveraging the expertise, resources and infrastructure of recognized leaders in specific industry areas while retaining rights to certain areas where we feel Maxygen will create the most long-term value.

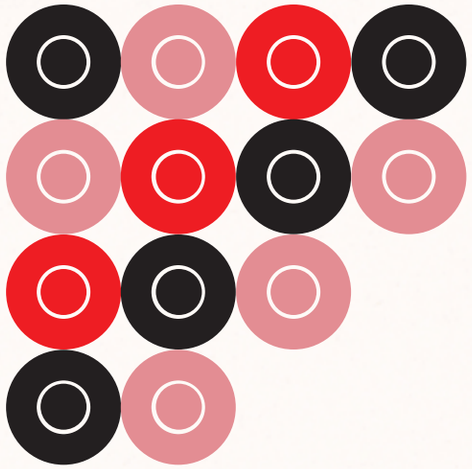
In 2000, we continued our previous partnering success and established five new strategic collaborations with leading companies in multiple different areas and three institutional alliances. In human therapeutics, we established product development collaborations with each of Lundbeck and ALK-Abelló as well as three institutional collaborations that will provide expertise in human therapeutics. We are working with the National Cancer Institute for certain cancer therapeutics, the Karolinska Institute for allergy immunotherapeutics, and The Scripps Institute for HIV therapeutics.

In the industrials area we consummated three new product focused partnerships, with Chevron, Rio Tinto and Hercules, demonstrating the breadth of applicability of our technologies across the many different areas of the chemicals industry.

For 2001, we are committed to forming an additional eight partnerships including three product-focused collaborations in human therapeutics, and three new product-focused collaborations in industrial applications. We also intend to form at least one joint development program, and we intend to form a collaboration focused on use of our core MolecularBreeding™ technologies in a new field of application.

Patents. Our MolecularBreeding™ directed molecular evolution technologies are, we believe, the most powerful platform of recombination-based tools to modify genes and proteins for the commercialization of high-value products. In 2000, we strengthened our leadership position in the area of recombination-based directed evolution through the issuance of an additional three patents. We now have rights to over 40 issued patents and over 450 pending applications.

Our technologies are some of our greatest assets.



NEW FOCUSED PARTNERSHIPS

2 Protein Pharmaceuticals: H. Lundbeck A/S, ALK-Abelló

2 Chemicals: Chevron, Rio Tinto, Hercules

VALIDATE LEAD CANDIDATES

1 Vaccine: Maxygen

1 Protein Pharmaceutical: H. Lundbeck A/S

1 Chemical Manufacturing Process: DSM, Pfizer

1 Chemical Catalyst: Novozymes

2 Agriculture: Du Pont, Maxygen

DELIVER SUCCESS TO PARTNERS: Novozymes, DSM, Pfizer, Du Pont

CORPORATE ACQUISITION: Profound Pharma

GENOMICS COLLABORATION: Integrated Genomics

PARTNERSHIPS

3 New Pharmaceutical

3 New Industrial

1 Product Development Collaboration

1 New Area

PRODUCTS

Advance portfolio of over 40 products

2 New Pharmaceutical products in development

3 New Industrial products in development

EXPAND SENIOR MANAGEMENT TEAM INFRASTRUCTURE

MAINTAIN AND EXTEND TECHNOLOGY LEADERSHIP POSITION

DEVELOP CLINICAL DEVELOPMENT CAPABILITY

We will continue to aggressively file patent applications to protect our intellectual property rights and defend our rights when necessary.

People. Our people are the reason we have been so successful in our short history. While our technologies may be revolutionary, they can only be translated into breakthrough products with a brilliant, creative and dedicated team to capitalize on the breadth of applicability and to execute our business strategy. We believe that Maxygen's science and business people are the best in the business, and indeed are drawn to Maxygen from all over the world because of the unique opportunities presented by our technologies to change the face of biotechnology product development. We strengthened the Maxygen team last year by growing from 143 employees at the end of 1999 to approximately 270 today. Each of our four business units now has its own leadership supported by dedicated scientific, business development and intellectual property staff.

Importantly, we acquired an integrated group of world-class experts at Profound Pharma in Denmark, expanding our protein pharmaceuticals portfolio and accelerating our ability to move our pharmaceutical products into clinical development. Profound also provided us with complimentary technologies for modifying proteins, further strengthening our integrated capabilities for the optimization of protein pharmaceuticals.

I truly cannot say enough about the talent and commitment of our teams in science, business development, legal and intellectual property and administrative and services support. Having established a strong infrastructure in 2000, our focus in 2001 is to deliver on product development goals and we expect only a modest growth in headcount by the end of this year.

We are undergoing a fundamental shift, moving from the leading developer of a transforming technology into a product-driven organization with a broad pipeline. We are confident that we will rapidly move multiple selected products downstream towards commercialization both internally as well as with corporate partners.

To meet this challenge, we have again set very aggressive goals for the company in 2001 according to our four key growth drivers—Products, Partners, Patents and People. I invite you to read more in-depth about our successes and planned growth in the following pages.

It is a privilege to serve the shareholders of

Maxygen and our company. I would like to thank them and our families for their continuing support and encouragement. Our vision, to pioneer the new industrial revolution providing a continuous stream of scientific advances and novel products that will improve life, is becoming more real with every passing day. We look forward to a continued exhilarating growth and an exciting, productive and rewarding year 2001.

Sincerely,

Russell Howard
Chief Executive Officer

MAXYGEN CURRENTLY HAS EIGHT PRODUCTS IN DEVELOPMENT

Protein Pharmaceutical H. Lundbeck
Cancer Vaccine Maxygen
Industrial Enzymes Novozymes
Industrial Enzyme Undisclosed partner
Antibiotic Intermediates DSM
Drug Manufacture Pfizer
Agriculture Product DuPont
Agriculture Product Maxygen

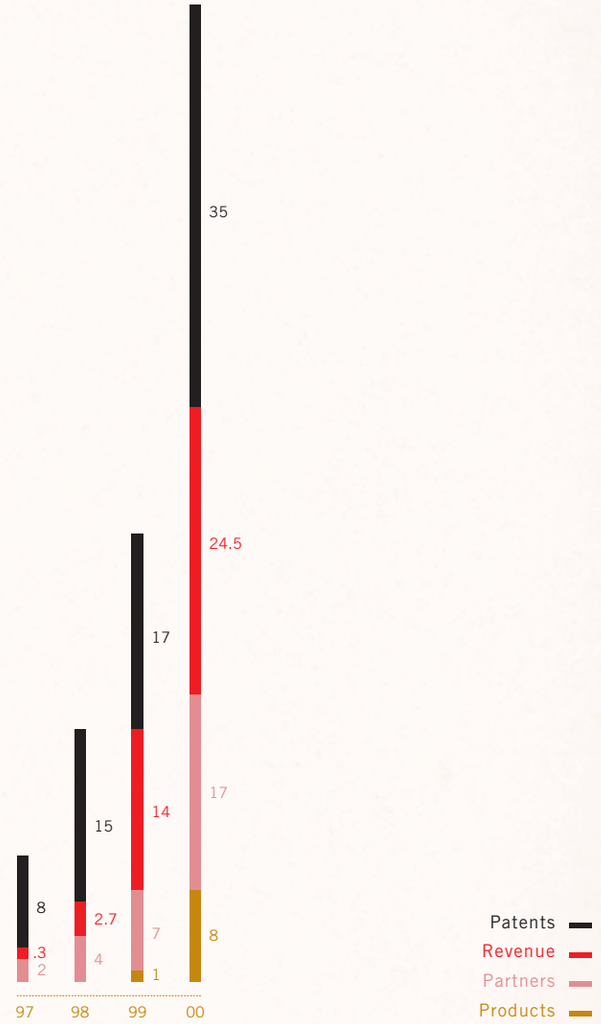
SELECTED FINANCIAL DATA YEAR ENDED DECEMBER 31 *(in thousands, except per share data)*

CONSOLIDATED STATEMENT OF OPERATIONS DATA:	1997	1998	1999	2000
Collaborative research and development revenue	$ 341	$ 1,077	$ 8,895	$ 13,299
Grant revenue	—	1,646	5,122	11,166
Total revenues	341	2,723	14,017	24,465
Operating expenses:				
Research and development[1]	2,757	7,207	16,094	38,534
General and administrative[2]	915	3,010	4,998	12,486
Stock compensation expense	863	1,561	5,656	15,891
Acquired in-process research and development	—	—	—	28,959
Amortization of intangible assets	—	—	—	3,419
Total operating expenses	4,535	11,778	26,748	99,379
Loss from operations	(4,194)	(9,055)	(12,731)	(74,914)
Net interest income	161	229	1,413	15,329
Net loss	(4,033)	(8,826)	(11,318)	(59,585)
Deemed dividend upon issuance of convertible preferred stock	—	—	(2,200)	—
Net loss attributable to common stockholders	$ (4,033)	$ (8,826)	$ (13,518)	$ (59,585)
Basic and diluted net loss per share[3]	$ (0.82)	$ (1.31)	$ (1.53)	$ (1.96)
Shares used in computing basic and diluted net loss per share	4,917	6,748	8,854	30,339
Pro forma basic and diluted net loss per share[4]		$ (0.75)	$ (0.74)	
Shares used in computing pro forma basic and diluted net loss per share[4]	—	11,762	18,249	—

CONSOLIDATED BALANCE SHEET DATA:	1997	1998	1999	2000
Cash, cash equivalents and investments	$ 2,693	$ 15,306	$ 136,343	$ 258,015
Working capital	2,152	12,264	132,510	216,388
Total assets	3,154	17,600	145,578	301,699
Non-current portion of equipment financing	—	—	1,644	1,295
Accumulated deficit	(4,033)	(12,859)	(24,177)	(83,762)
Total stockholders' equity	2,571	11,700	133,716	282,198

1 Excludes charges for stock compensation of $317, $651, $3,156 and $11,468 in 1997, 1998, 1999 and 2000, respectively.
2 Excludes charges for stock compensation of $546, $910, $2,500 and $4,513 in 1997, 1998, 1999 and 2000, respectively.
3 Includes stock compensation expense, acquired in-process research and development and amortization of intangible assets.
4 Pro forma net loss per share information gives effect to the conversion of all convertible preferred stock outstanding from the date of issuance and includes stock compensation expense.

DEMONSTRATED ABILITY TO DELIVER



three/ Protein Pharmaceuticals

Proteins control the activity of human organs and cells and are fundamental to human biology and human health. Disease often occurs when a protein is absent, defective or in excess in certain cells within the body. Some proteins are currently used as therapeutic products due to their ability to impact complex human biological systems and to induce a strong therapeutic effect.

Proteins have evolved over centuries to perform specific functions within our bodies, not to be used for the treatment of disease. Most proteins need to be optimized to be used effectively as drugs. At Maxygen, we believe we have the best technologies available to optimize proteins for the treatment of serious diseases.

Mother / Grandmother / Best Friend / Daughter

We are working to make it possible for sick people to return to their normal lives.

PROTEIN PHARMACEUTICALS

Our protein pharmaceuticals business unit is dedicated to becoming the world's leading provider of improved, proprietary, protein-based therapeutics.

MARKET OPPORTUNITY

In 1999, worldwide sales of therapeutic proteins made using recombinant DNA technology were approximately $17 billion. The protein therapeutics sector is one of the fastest growing sectors of the pharmaceutical market, with an annual sales growth rate of 10% to 15%.

PROTEIN PHARMACEUTICALS OPPORTUNITY	$17 BILLION 1999	10% ~ 15% ANNUAL SALES GROWTH

By applying our broad technology platform, we believe we will be able to develop potent and safe protein pharmaceuticals that help address current limitations. We believe our technologies will help us to develop novel and improved next generation protein pharmaceuticals with some or all of the following key characteristics:

- Increased potency
- Novel biological activity
- Longer half-life
- Fewer side effects

EXAMPLES OF THERAPEUTIC PROTEINS MADE USING RECOMBINANT DNA TECHNOLOGY, THEIR 1999 SALES AND POTENTIAL IMPROVEMENTS THAT COULD BE MADE TO THE PROTEINS CURRENTLY BEING MARKETED ARE LISTED BELOW:

Product (1999 sales $US)	Potential Improvement
Erythropoietin ($4.9 billion)	Longer half-life
Insulin ($3.4 billion)	Lower manufacturing cost
Human Growth Hormone ($2.6 billion)	Longer half-life
Alpha Interferon ($1.9 billion)	Fewer side effects, increased specificity
Granulocyte Colony Stimulating Factor ($1.6 billion)	Longer half-life
Beta Interferon ($490 million)	Fewer side effects, longer half-life
Interleukin 2 ($100 million)	Increased specificity, fewer side effects

Applying our technology to improve existing drugs on the market can potentially reduce product development risk as well as accelerate the discovery and development phases of a drug candidate. While protein pharmaceuticals made from naturally occurring proteins can address large markets, they are often not well-suited for commercialization without modification. Our integrated platform of proprietary technologies, including our MolecularBreeding™ directed molecular evolution technologies and post-translational modification capabilities, can help transform proteins into more potent, efficient and safer pharmaceuticals with suitable duration of action.

BUSINESS STRATEGY

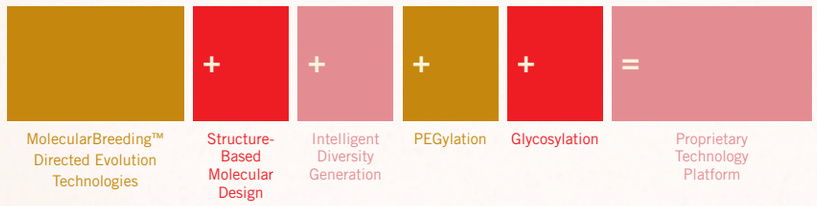
The speed of our technologies allows us to pursue many products simultaneously. The strategy of our protein pharmaceuticals business unit is to both partner and independently develop new and improved therapeutic products. Biopharmaceuticals at all stages of development—research, clinical, marketed, or failed—are potential targets for improvement. We are currently building internal preclinical and clinical capabilities to allow us to move multiple products through the approval processes in the United States, Europe, and other important markets. In parallel we are working with pharmaceutical companies to develop, manufacture and commercialize biopharmaceutical candidates made using our technologies. By collaborating with leading pharmaceutical companies and creating better versions of proven therapeutics we decrease our development risk and retain the potential for high returns.

Our protein pharmaceuticals business unit was expanded considerably in August 2000 by our acquisition of Maxygen ApS (then known as Profound Pharma A/S), a Danish company, which contributed protein modification technologies and capabilities, as well as a strong team of scientists with protein pharmaceutical expertise. With the acquisition of Maxygen ApS, our protein pharmaceutical product pipeline was doubled. We have also benefited by additional expertise related to all stages of protein pharmaceutical development including protein chemistry, *in vitro* and *in vivo* pharmacology, immunology, fermentation scale-up and preclinical and clinical development. We also now have a strong European presence to complement our existing activities in the USA.

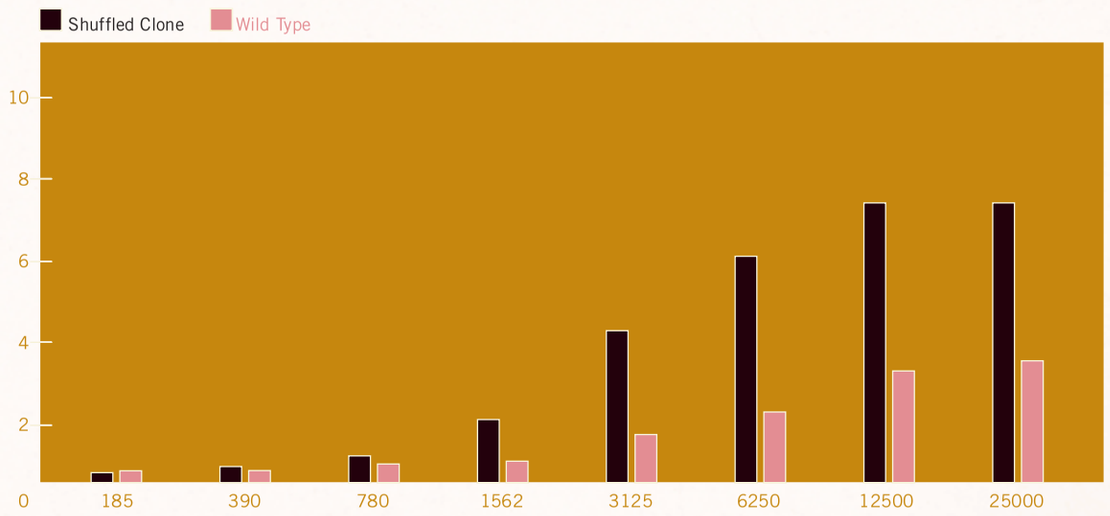
TECHNOLOGY PLATFORM

We are capable of improving biopharmaceuticals in several important parameters through the use of our integrated platform of proprietary technologies. In addition to our MolecularBreeding™ technologies, our proprietary platform includes a number of technologies for structure-based molecular design, intelligent diversity generation, and directed PEGylation and glycosylation. We have also designed and implemented automated high-throughput fermentation capabilities, and protein purification and characterization techniques that are specific to proteins. Our technology platform is highly flexible and enables us to apply a wide selection of technologies in an integrated fashion to improve proteins for a desired function.

PROPRIETARY TECHNOLOGY PLATFORM

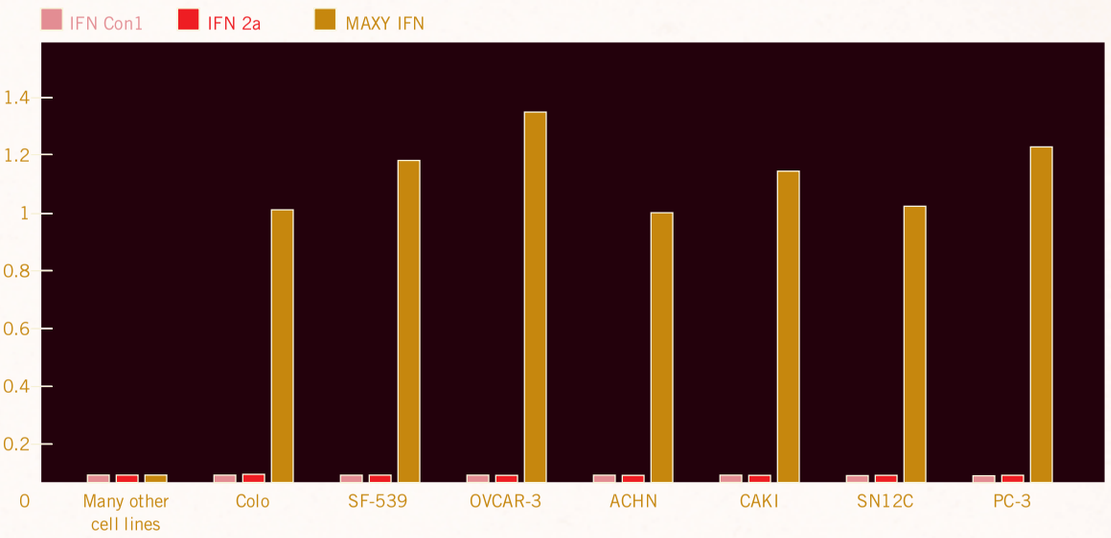


INCREASED POTENCY AND BIOLOGICAL ACTIVITY – HUMAN T CELL PROLIFERATION



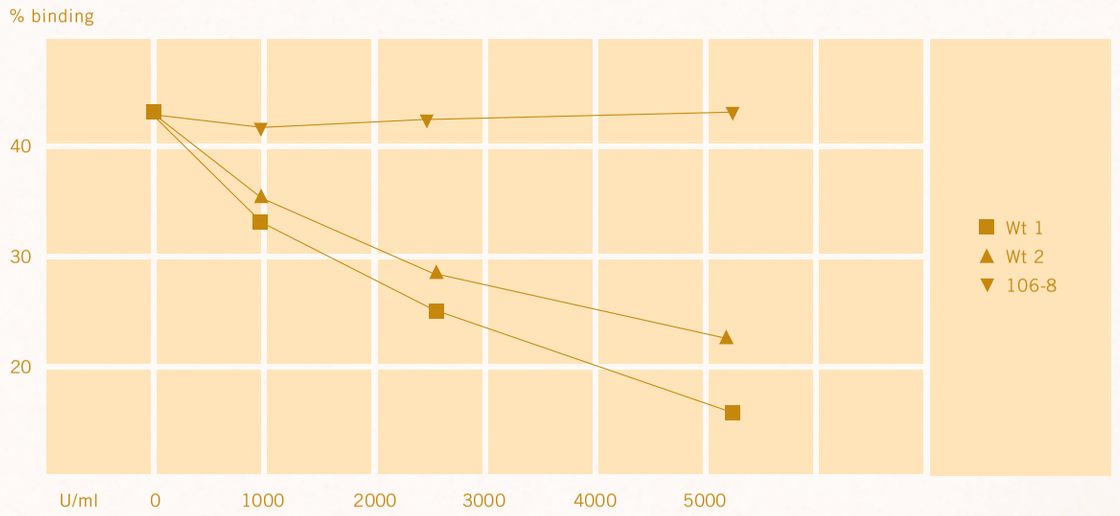
Our MolecularBreeding™ Directed Evolution technologies have improved the potency of several proteins with important biological activities.

DRAMATICALLY IMPROVED BIOLOGICAL ACTIVITY



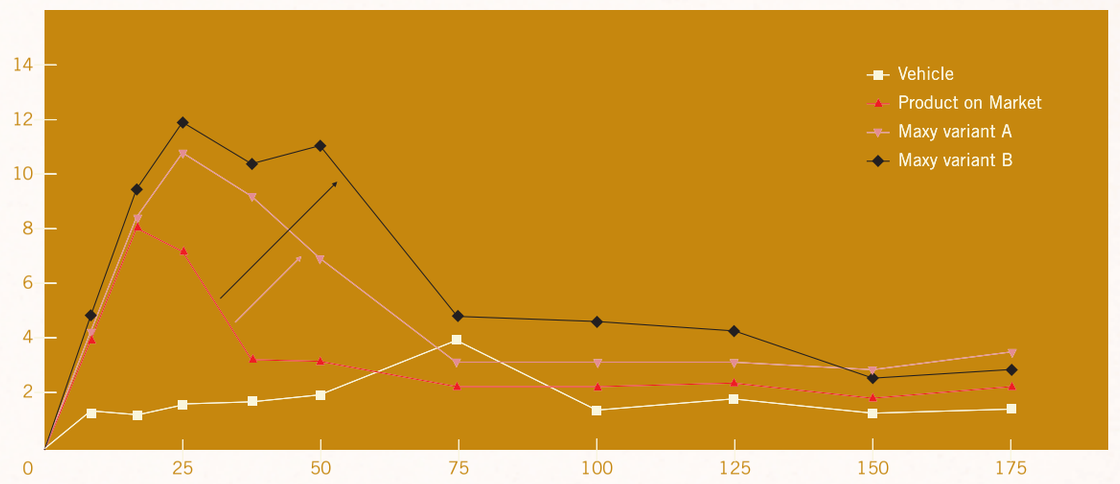
Our MolecularBreeding™ technologies have created novel and improved biological activities.

REDUCE POTENTIAL SIDE EFFECTS



We have demonstrated our ability to reduce potential side-effects using our proprietary algorithms and chemistries for the directed PEGylation or glycosylation of protein products.

IMPROVE DRUG HALF-LIFE



Maxygen has successfully demonstrated in several examples our ability to improve the half-life of existing protein pharmaceuticals.

PRODUCTS/ PIPELINE

Our protein pharmaceuticals business unit is focused on the development of next-generation and novel protein therapeutics. At present, we have over ten active programs aimed at improving therapeutic proteins, many of which are next-generation versions of successfully marketed products.

EXAMPLES OF POTENTIAL PRODUCTS IN PROTEIN PHARMACEUTICAL PIPELINE

Product	Disease Indication	Partner/Maxygen Retained Rights	Estimated Potential Market
Maxy 10	CNS, including MS	Lundbeck	$3 billion
Maxy 12	Inflammatory disease	Maxygen	$700 million
Maxy 14	Cancer	NCI/Maxygen	$1 billion
Maxy 20	Allergy	ALK-Abelló	$1.6 billion
Maxy 30	Autoimmune disease	Maxygen	$1 billion

ALLIANCES PROTEIN PHARMACEUTICALS

ALK-ABELLÓ In February 2001, Maxygen established a three-year collaboration with ALK-Abelló A/S, a wholly owned subsidiary of Chr. Hansen Holding A/S, to research and develop novel recombinant therapeutics for the treatment of specific allergies. We are collaborating with ALK-Abelló to create therapies for treating specific allergies, including allergies to house dust mites and grass, which are the cause of many common allergies. Treatments for these allergies may provide ALK-Abelló with access to a market with a potential value of $1.6 billion. Under the terms of the collaboration, Maxygen will receive license fees, technology access fees, research and development funding, and potential milestone payments which could total up to approximately $80 million. Maxygen will also receive royalties on product sales. ALK-Abelló will receive exclusive worldwide rights to commercialize all recombinant human therapeutics developed in the collaboration.

LUNDBECK In September 2000, Maxygen established a three-year strategic alliance with H. Lundbeck A/S, a Danish pharmaceutical company, to develop a protein pharmaceutical product to address central nervous system diseases including multiple sclerosis. Treatments for these diseases may provide Lundbeck with access to a market with a potential value of $3.0 billion. Lundbeck specializes in the development of pharmaceuticals to treat psychiatric and neurological disorders. Maxygen will receive research and development funding as well as license fees, milestone payments and royalties on product sales. We also retain development and marketing rights to the product in key Asian markets and global rights for all indications outside of central nervous system diseases, including inflammatory disease and cancer. This product is currently in preclinical development.

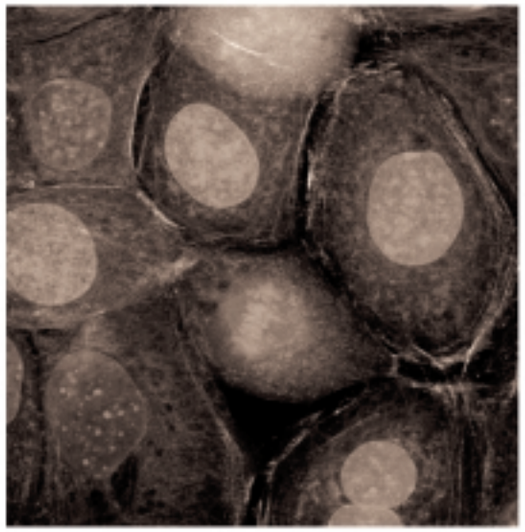
KAROLINSKA INSTITUTE In July 2000, Maxygen initiated a two-year program with the Karolinska Institute for the development of novel allergy immunotherapeutics. Under the agreement, we will use our proprietary technologies to generate novel recombinant allergens for the treatment and prevention of certain common allergic conditions that the Karolinska Institute will help screen using sera and lymphocytes from allergic patients. Maxygen will retain commercialization rights without any future financial obligation for any application of potential allergy products.

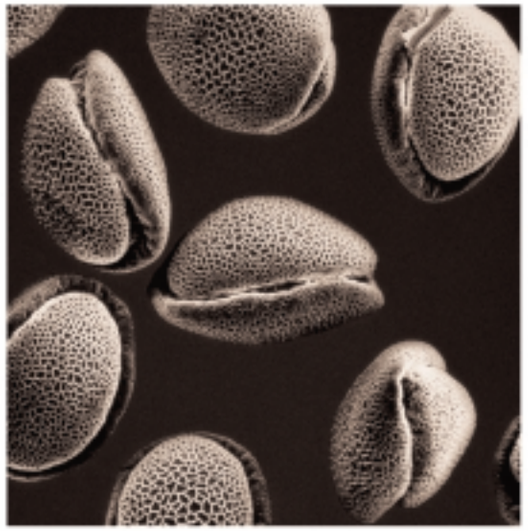
NATIONAL CANCER INSTITUTE In February 2000, Maxygen entered into a cooperative research and development agreement (CRADA) with the National Cancer Institute, National Institute of Health. The CRADA is a three-year research agreement under which we will work with the National Cancer Institute to develop therapeutic proteins for the treatment of cancer. Under the agreement we have the right to acquire an exclusive license to intellectual property developed in the CRADA for commercial use, subject to a nonexclusive royalty-free license retained by the U.S. government.

SHEARWATER CORPORATION In September 2000, Maxygen initiated a collaboration with Shearwater Corporation, a leader in PEG-technology. This alliance provides us with access to Shearwater's proprietary PEGylation chemistries, as well as PEG compound supply, for the development of our product candidates.

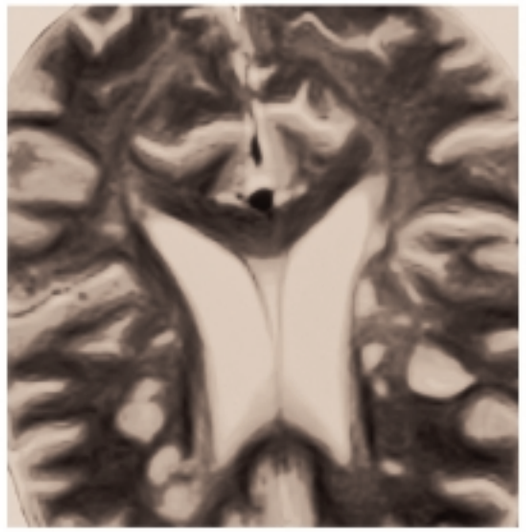
four/ Vaccines

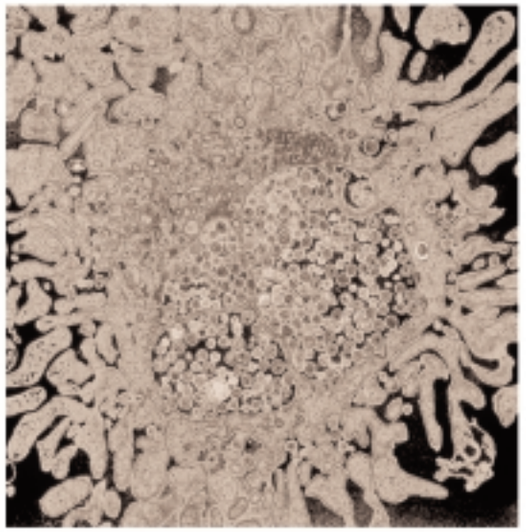
Vaccines allow for the antigen specific modulation of the immune system. Ever since Edward Jenner's discovery of the small-pox vaccine in the late 1790s, vaccines have been used successfully to prevent infectious diseases in humans and animals. Large-scale vaccination campaigns have created a drastic reduction in the incidence of infectious diseases in the last 50 years. Preventative vaccines have been the most effective way to control infectious disease, and are much more cost-effective than post-onset treatment. Advances in immunology now allow for the potential use of vaccines not only to prevent but also to treat major chronic diseases such as cancer, autoimmune disease and allergy. Maxygen's technologies are ideally suited for the development of vaccines for many novel applications.





Cancer / Allergy / Autoimmune / AIDS





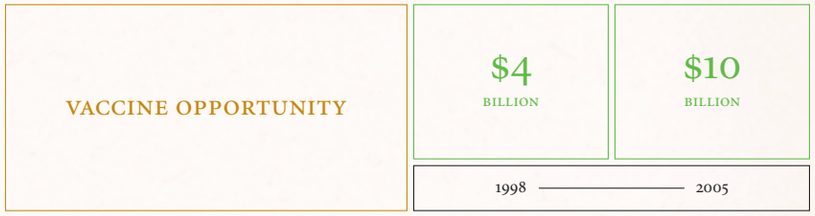
We are developing vaccines for the treatment of these and other diseases.

VACCINES

Our vaccines business unit is dedicated to becoming the leading provider of novel vaccines for the prevention and treatment of infectious diseases, cancer, autoimmune disease and allergy.

MARKET OPPORTUNITY

Worldwide sales of vaccines in 1998 exceeded $4 billion and are expected to exceed approximately $10 billion by 2005. Recombinant DNA technology has enabled the development of prophylactic vaccine products that are safer, cheaper and easier to manufacture. This includes new products such as the Hepatitis B vaccine which had estimated 1998 sales of $1.5 billion and is expected to have 2001 sales of $1.6 billion.



The vaccine market is expected to increase dramatically for several key reasons:

1. New technologies, such as MolecularBreeding™ directed evolution technologies, have the potential to allow for the successful development of vaccines not only for prevention of disease, but also for the treatment of many important existing diseases, such as cancer, autoimmune disease and allergy, and chronic infectious diseases. Treatment of such diseases with vaccines will expand the market size dramatically beyond vaccines' traditional use as prophylactics for pediatric infectious diseases.
2. Travel around the world is increasing at a dramatic rate. Traveling increases the probability that viruses, bacteria and other infectious agents will be disbursed worldwide.
3. Vaccines remain the best way to control epidemics and the spread of disease.
4. Adults are being vaccinated more frequently, expanding the patient population.

We believe our proprietary technologies have the potential to transform the design and development of vaccines and to enable us to help address both the treatment and prevention of a wide variety of diseases, including cancer, allergy, autoimmune disease and infectious diseases such as AIDS and hepatitis.

BUSINESS STRATEGY

The speed of our technologies allows us to pursue many products simultaneously. The strategy of our vaccines business unit is to both partner and independently develop products. We will outlicense and partner potential products that we choose not to develop independently and enter into additional collaborations to further our technologies and product development capabilities. By collaborating with leading pharmaceutical companies we balance our return and our development risk.

Our vaccine business unit has been built primarily through grant funding of more than $22 million from the U.S. government. This funding has enabled us to advance key programs and our technology platform as a whole.

We have also received funding from the National Institute of Standards and Technology – Advanced Technology Program (NIST – ATP) to develop novel screening systems for the discovery and development of new AIDS therapies, vaccines and novel and improved manufacturing processes.

TECHNOLOGY PLATFORM

We believe our proprietary technologies have the potential to transform the design and development of vaccines through the optimization of properties that allow for the generation of broad and strong immune responses. We have shown that we can generate new modified vaccines that have the potential to overcome the limitations of traditional vaccine development.

We believe our technologies will enable the development of prophylactic and therapeutic vaccines with the following key characteristics:

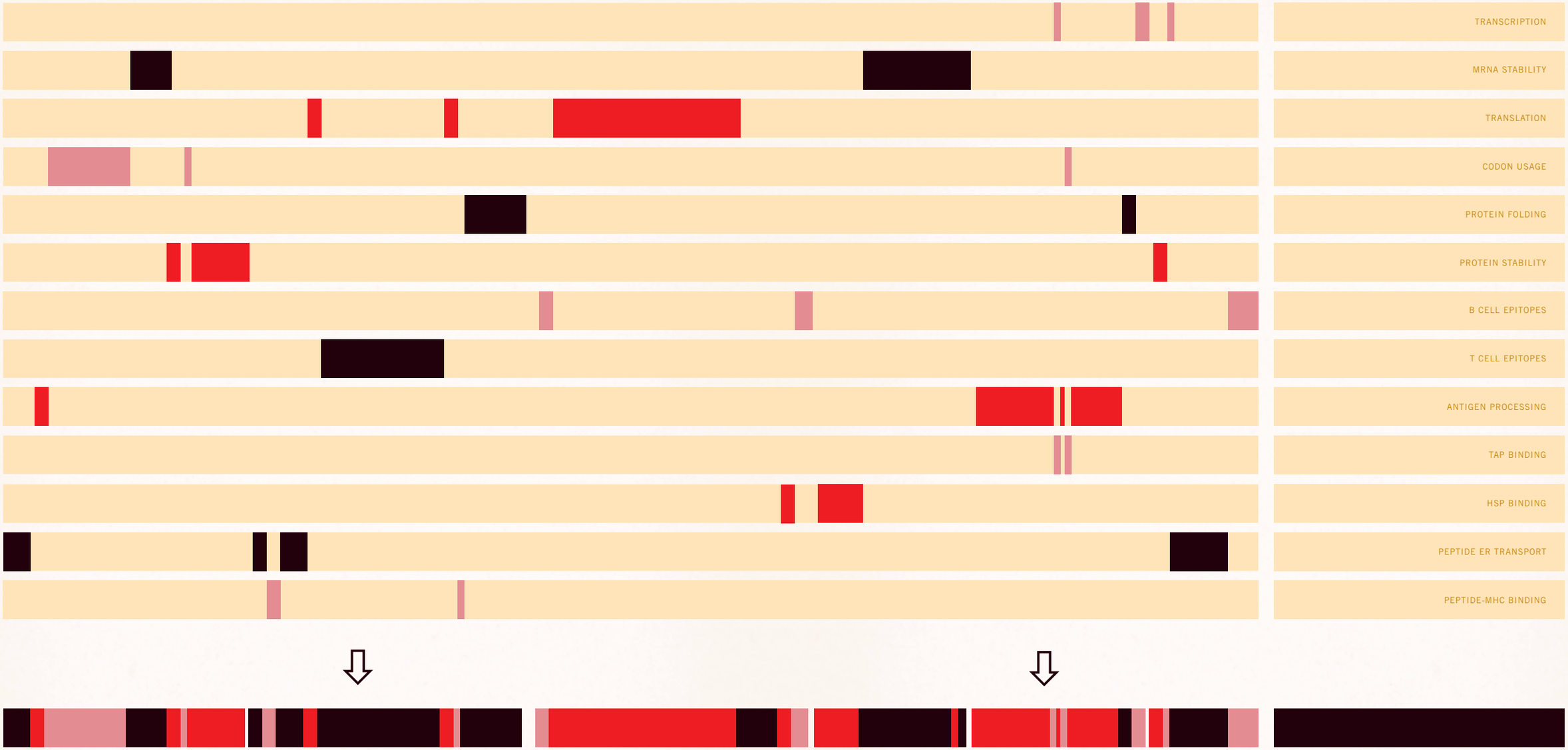
The ability to generate the appropriate immune response. Many prophylactic and therapeutic vaccines in development have not been successful due to their inability to generate an immune response sufficient to treat or protect from disease. We have shown that our technologies can potentially be used to separately improve the various components of a vaccine, so that the overall immune response is sufficiently improved. Vaccines with improved immunogenicity may be useful in treating cancer, allergy and chronic infectious diseases such AIDS, as well as protect against initial disease.

The ability to protect against multiple "forms" of a disease with one vaccine. Many infectious agents provide long-lasting protection against subsequent infection with the same pathogen. However, many viruses (e.g., HIV, influenza) and certain bacteria change so frequently they can evade the immune system. Our technologies can potentially be used to create novel vaccines that can provide protection from most or all forms of disease in one product.

Novel adjuvants to boost the relevant immune response. Our technologies have been used to generate novel adjuvants, or components of vaccines that boost the immunogenicity of the vaccine component. Our novel adjuvants have the potential to be more efficient at boosting the immune response to the vaccine, and at the same time, cause fewer side effects. These novel adjuvants may be able to be used as components of vaccines against cancer, allergy and chronic infectious diseases.

Novel therapeutic vaccines to induce tolerance. When the body's immune systems attacks its own healthy tissue, autoimmune disease occurs. Types of autoimmune disease include rheumatoid arthritis, multiple sclerosis, inflammatory bowel disease and psoriasis. Therapeutics that are able to intervene in this process by downregulating the immune system's attack of its own cells, and re-educating these cells by inducing tolerance, could be effective as therapies for many kinds of autoimmune disease. Multiple naturally occurring proteins, such as cytokines and antibodies, are under development as therapeutics for autoimmune disease. However, many of these therapies are limited because they generally cause multiple different kinds of responses in the body. Our technologies can potentially be used to develop therapeutic vaccines with the ability to downregulate specific immune responses and induce tolerance.

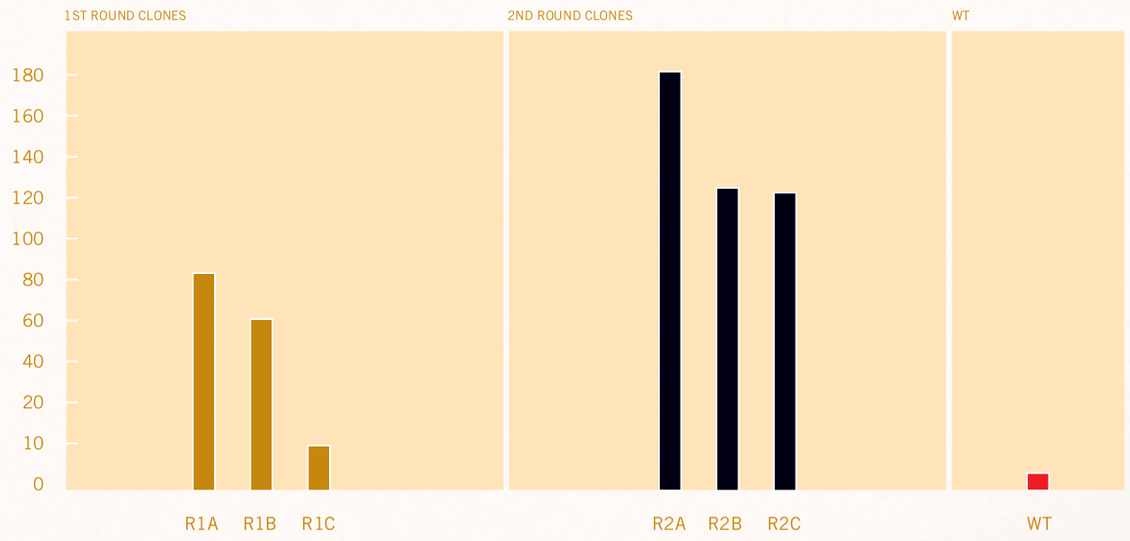
GENERATION OF OPTIMIZED ANTIGENS



SELECTED ANTIGEN: ALL REGIONS POSITIVELY AFFECT IMMUNOGENICITY

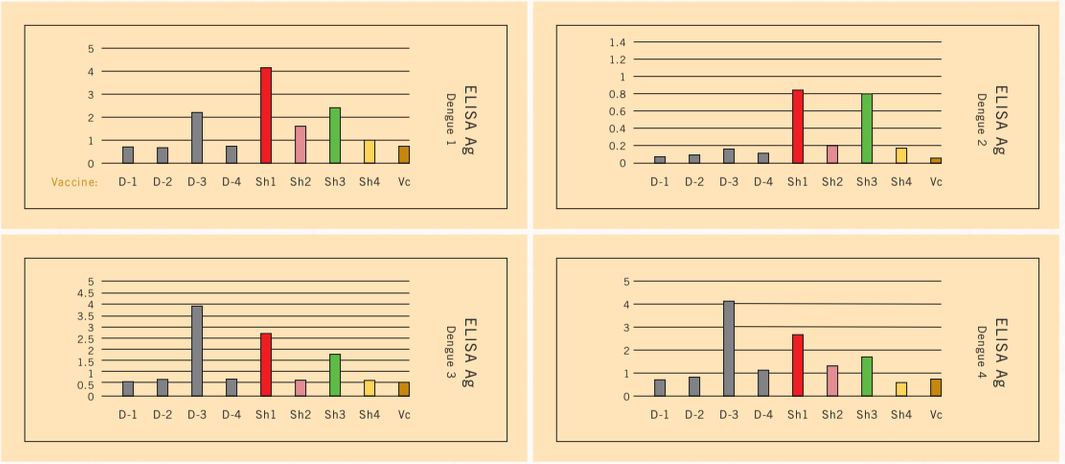
Scattered through the DNA sequences of each of many antigens from related pathogens are regions that positively affect immunogenicity. Generation of optimized antigens by DNAShuffling does not require knowledge of where such regions are, because screening of the variant chimeras will identify those with the greatest immunogenicity.

ENHANCED IMMUNOGENICITY OF HBsAg AFTER 2ND ROUND



Maxygen's technologies have the potential to enhance immunogenicity allowing for the creation of more effective vaccines for diseases such as Hepatitis.

CROSSREACTIVE ANTIBODIES ELICITED BY SHUFFLED DENGUE ANTIGENS



Maxygen's technologies can potentially be used to create novel vaccines that can protect against all or most forms of diseases such as HIV and Dengue.

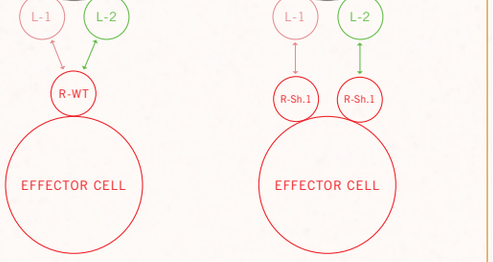
We are developing vaccines for the prevention and treatment of cancer, autoimmune diseases, allergy and infectious diseases.

Our lead product is a therapeutic vaccine in preclinical development for the treatment of cancer. In addition we have ten prophylactic and therapeutic vaccine candidates in our research pipeline.

EXAMPLES OF POTENTIAL PRODUCTS IN VACCINE PIPELINE

Product	Disease Indication	Partner/Maxygen Retained Rights
Maxy 201	HIV	International AIDS Vaccine Initiative
Maxy 1100	Treatment of Hepatitis B	Maxygen
Maxy 1200	Treatment of Cancer	Maxygen

NOVEL IMMUNOTHERAPEUTICS



Maxygen has applied its technology to a range of proteins critical to the human immune system. We have generated a number of potential products which can potentially increase the immune response or potentially induce tolerance for the treatment of autoimmune diseases and for use in transplantation.

INTERNATIONAL AIDS VACCINE INITIATIVE In February 2001, Maxygen established a three-year collaboration to develop novel HIV vaccines with the International AIDS Vaccine Initiative (IAVI) and DBLV, LLC, an entity established and funded by the Rockefeller Foundation. Under the agreement, DBLV provides full research and development funding to us for at least three years to expand our ongoing program in HIV vaccine development. Maxygen will retain all rights to commercialize the HIV vaccine candidates in all developed countries of the world, as well as in certain markets in the developing world. According to the World Health Organization and UNAIDS, 36.1 million people were living with HIV/AIDS at the end of 2000. Worldwide, AIDS has become the leading cause of death from infectious diseases. In 2000, AIDS killed 500,000 children and 2.5 million adults, and despite existing prevention efforts an additional 600,000 children and 4.7 million adults became infected with HIV, the virus that causes AIDS. In recognition of the great need for a vaccine against AIDS in the poorest countries of the world, we have granted IAVI a royalty-free license to develop and distribute HIV vaccines to those who cannot afford them in developing countries.

SCRIPPS RESEARCH INSTITUTE In September 2000, Maxygen established a research and screening collaboration with the Scripps Research Institute to identify potential vaccine candidates for the treatment and prevention of HIV. We will use our proprietary technologies to create novel antigens capable of generating immune responses against HIV. Scripps will analyze the novel antigens for their ability to immunize against HIV.

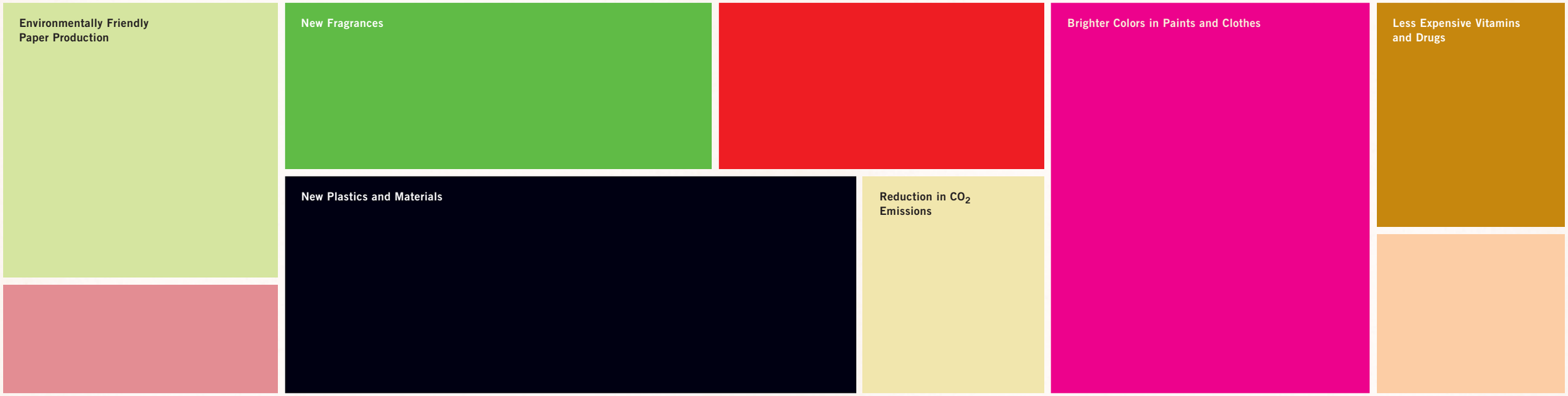
DARPA In 1998 and 1999 Maxygen received grants from the Defense Advanced Research Projects Agency (DARPA) to use our MolecularBreeding™ directed molecular evolution technologies to (i) evolve a new generation of DNA vectors for rapid and efficient delivery of antigens for immunization, (ii) generate new vaccines with a broad spectrum of activity against multiple strains of several different pathogens and (iii) deliver aerosol-based preventative and therapeutic agents.

NIST-ATP In 1997 Maxygen received a grant from the National Institute of Standards and Technology – Advanced Technology Program (NIST – ATP) to use our MolecularBreeding™ directed molecular evolution technologies to develop new screening systems for use in accelerated discovery and development of new AIDS therapies and vaccines.

five/ Chemicals

The chemical industry is undergoing a transformation in the way it produces chemicals and materials. Many chemical companies are moving from chemical catalysts to biological catalysts because of the need for more cost-effective, environmentally friendly manufacturing and the need for new high performance materials. The success of the transformed chemical industry will depend on new technologies to manufacture chemicals, and the discovery of new chemicals and materials with novel functionalities that have the potential to broadly impact the chemical industry. Maxygen's technologies represent a powerful means for improving the properties of industrially relevant genes for the creation of new products and processes.

Maxygen is working to create new and improved products and processes for the chemical industry.



CHEMICALS

Our chemicals business unit is dedicated to becoming the global leader in providing proprietary biologically-based process solutions for the discovery and manufacture of bulk, specialty and fine chemicals, including pharmaceutical intermediates and products.

MARKET OPPORTUNITY

The chemicals industry is comprised of three major segments: commodity, specialty and fine. Together, 1999 sales in these three segments exceeded $1.6 trillion. Within these segments, approximately $50 billion in sales is readily addressable by biological processing, for example, either by fermentation or through the use of enzyme catalysts. An additional $200 billion in sales has been identified as potentially addressable by biological approaches within the next 10–20 years. Included in the potential market is the manufacturing of major chemicals, plastics, vitamins, compounds used in the manufacture of pharmaceuticals, enzymes for use as catalysts, pigments and additives in paint, and polymers and fibers in clothing.

Enzymes occurring in nature are generally unable to meet the stringent activity requirements necessary for the commercial use of enzymes in industrial processes. Technologies such as our MolecularBreeding™ directed molecular evolution technologies are potentially able to overcome such shortcomings.

BUSINESS STRATEGY

The chemical industry is undergoing a transformation in the way it produces chemicals and materials. New genomic information from various organisms will help make renewable resources the preferred energy basis and carbon source for the manufacture of value-added chemicals and materials in the years to come.

Yet genomic information alone is not sufficient to complete the transformation. New tools, such as the ability to manipulate genes and pathways in innovative ways, are critical for the development of enzymes that operate under conditions optimal for chemical processes, essentially serving to fit the enzyme to the process rather than the process to the enzyme. Our technologies represent a powerful means for improving the properties of industrially relevant genes. For example, enhancements in the carbon efficiency of fermentation processes may be derived from the optimization of biochemical pathways *in vivo*. Biocatalysis will complement and in some cases replace chemical catalysis, offering a more efficient and sustainable process.

The business strategy of our chemicals business unit is to partner for specific products and processes with leaders in relevant segments of the chemical industry, ranging from commodities to pharmaceuticals, while retaining rights within those segments to develop other processes internally or to partner further down the process development value chain. To date, we have entered into six collaborations with leading companies in their respective segments for the development of specific products or processes. These collaborations provide critical capabilities, revenues and a route to market, helping to reduce the risk associated with developing a commercial product. We provide our collaborators with a range of process development capabilities, from fully integrated processes and single optimized process steps, to optimized fermentation and biocatalyst evolution which enable competitive proprietary product development.

For products and processes where specialized market expertise or significant capital is necessary, we will primarily work with partners to reach commercialization. Examples of such products include fuels, bulk chemicals and polymers such as polyester, specialty products like performance thermoplastic resins, and specialty process chemicals such as pulp and paper chemicals.

TECHNOLOGY PLATFORM

The chemicals business unit is focused on improving existing chemical processes and creating novel processes for the manufacturing of bulk, specialty and fine chemical products, including pharmaceuticals. Our platform of proprietary technologies can allow for the "evolution" of enzymes, multi-enzyme pathways and organisms, overcoming the existing limitations of enzyme catalysts and enabling the development of economically viable biocatalytic and fermentative processes. We believe that our approach is faster, better and less expensive than traditional methods, enabling a new paradigm in process design in which a biological catalyst can be designed for a process, rather than the process being designed around a catalyst.

In addition to our DNAShuffling recombination technologies, we have developed expertise in developing high-throughput biological and chemical screening systems that closely mimic the commercial scale environment. Screening for trace amounts of a specific chemical, rheological properties of a polymer, or a specific stereo- or regioisomer are just some of the high-throughput screening capabilities we have developed to identify conversions and syntheses of interest. Coupled with the power of DNAShuffling recombination technologies, our screening systems help enable us to rapidly develop integrated, commercially viable chemical processes at the relevant scale.

We have demonstrated that MolecularBreeding™ directed molecular evolution technologies can allow for the creation of new modified enzymes for use as catalysts and modified metabolic pathways that overcome the limitations of naturally occurring enzymes. We are currently generating libraries of proprietary enzymes for use as catalysts, which we believe will offer significant competitive advantages over existing chemical catalysts. These enzymes could provide increased yields and decreased manufacturing costs by a reduction in requirements for raw materials, capital equipment and energy. In addition, we believe these enzyme catalysts will have applicability in generating new useful materials and small molecule drug leads.

PRODUCTS/ PIPELINE

Our chemicals business unit is targeting multiple major high-value, low-volume chemical processes in the specialty and fine chemical areas for internal development and later stage partnering. These products include specific pharmaceutical intermediates and actives, antibiotics, vitamins and nutritional compounds and other fine chemicals.

EXAMPLES OF POTENTIAL PRODUCTS IN CHEMICALS PIPELINE

Product	Product/Process	Partner/Maxygen Retained Rights	Estimated Potential Market
Maxy c11	Industrial Enzymes	Novozymes	$1.8 billion
Maxy c13	Penicillin Intermediates	DSM	$300+ million
Maxy c17	CO_2 abatement	Rio Tinto	$10–$100 billion*
Maxy c19	Approved pharmaceutical	Pfizer	$200 million
Maxy c23	Methanol	Chevron	$2–$4 billion
Maxy c27	Pulp & paper chemicals	Hercules	$13 billion

We currently have over ten potential products in various stages of research and three potential products in commercial development.

ALLIANCES CHEMICALS

HERCULES In October 2000, Maxygen entered into a four-year collaboration with Hercules Incorporated focused on developing specific high-value specialty chemicals via custom-made biological catalysts for the pulp and paper industry. Total 1999 worldwide sales of pulp and paper chemicals were estimated to be more than $13 billion. Under the terms of the collaboration, Maxygen will receive full research funding, technology access fees, license fees and milestone payments, as well as royalties on any product sales.

CHEVRON In October 2000, Maxygen entered into a three-year collaboration with Chevron Research and Technology Co. to develop novel bioprocesses for specific petrochemical products. The initial area of focus will be to develop a biocatalytic process for the conversion of methane to methanol. Currently, the worldwide methanol market is estimated to be 11 billion pounds consumed annually at a price of $0.50 per pound. Chevron will have commercialization rights in exchange for license fees, technology access fees, full research funding, milestones, annual fees and product royalties.

PFIZER In September 2000, Maxygen extended a May 1998 agreement with Pfizer Inc. in the area of biochemical manufacturing of a specific pharmaceutical product. The product generates approximately $200 million dollars in sales per year for Pfizer. Under the 1998 agreement, we improved the selectivity of the biosynthetic pathway that is critical to the manufacture of Pfizer's product, and delivered an improved pathway that is currently under commercial development by Pfizer. In the expanded collaboration, commercial terms were agreed upon for the improved process, with success earning Maxygen research and commercial milestones as well as a high percentage of all manufacturing cost savings once the optimized commercial process is scaled up at Pfizer. Additionally, Pfizer has agreed to fund additional research and development at Maxygen to allow us to further improve the performance of the pathway.

* $200–$350/ton of coal
total coal consumption 1,400 million tons/year

RIO TINTO In January 2000, Maxygen entered into a three-year collaboration with Technological Resources Pty Limited, a wholly owned subsidiary of Rio Tinto Corporation plc, one of the world's leading mining companies, to develop enzymatic systems to increase the efficiency of carbon dioxide fixation in connection with the combustion of fossil fuels and for other purposes. The technology, if successful, has broad applicability to multiple billion-dollar industries. Increased efficiency could play a significant role in the reduction of CO_2 emissions, which the U.S. Department of Energy estimates to be approximately 1,400 million tons per year with an estimated future abatement cost of approximately $200 to $350 per ton. In connection with the collaboration, Maxygen will receive research and funding payments and technology advancement fees. In addition, Maxygen and Rio Tinto each will share revenues with the other from certain products or processes that are commercialized by the other.

DSM In March 1999, Maxygen entered into a three-year collaboration with Gist-Brocades N.V., a subsidiary of DSM N.V., to utilize our technologies to develop novel enzymes for use in the manufacture of certain classes of penicillin antibiotics. Antibiotics represent one of the largest product classes in the anti-infectives market, with certain penicillin intermediates, such as PenG and 6-APA, representing annual market opportunities of $200 million to $300 million in total product sales. We will receive research funding over three years and will receive royalties from the commercialization of any enzymes developed through our technologies.

NOVOZYMES (formerly a division of Novo Nordisk A/S) In September 1997, Maxygen entered into a five-year strategic collaboration with Novozymes, the world's largest producer of industrial enzymes, for the development and bulk production of specific industrial enzymes in fields such as laundry detergents, leather processing and pulp and paper manufacturing. Novozymes had a market share of 43% of the industrial enzymes market in 1999. The total current industrial enzymes market (a segment of the chemicals market) is estimated at $1.8 billion, and is expected to grow to more than $3 billion by 2008. In addition to providing Novozymes with an improved subtilisin molecule (one of the most studied and highly modified industrial enzyme products with 1999 worldwide sales in excess of $400 million), in 2000 we announced the advancement of an additional industrial enzyme product candidate into commercial development. We will receive research funding over five years and will receive royalties from the commercialization of any enzymes developed through our technologies.

CALIFORNIA INSTITUTE OF TECHNOLOGY In 1998, Maxygen expanded a research cooperation with Dr. Frances Arnold's laboratory at the Department of Chemical Engineering at the California Institute of Technology. Dr. Arnold's research group focuses on developing evolutionary protein design methods, engineering new enzymes and pathways, and using the results of laboratory evolution to elucidate mechanisms of enzyme function and protein adaptation. Dr. Arnold has collaborated with us since our inception.

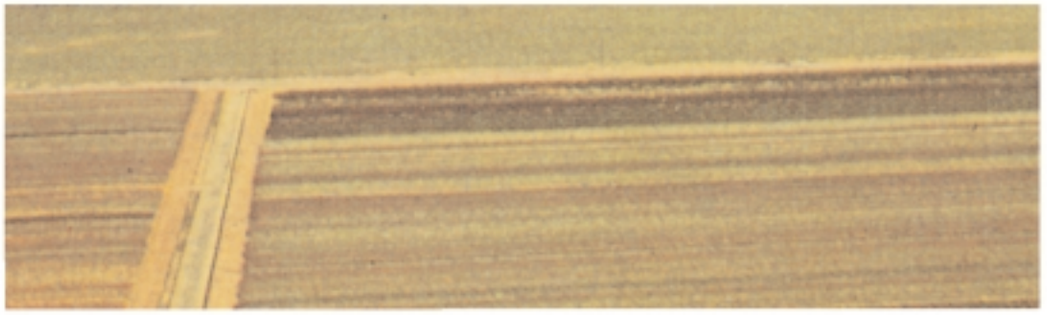
In addition to our corporate and academic collaborations we have received grants from NIST-ATP (1998) to develop whole genome shuffling and from DARPA (1998) to develop enzymes with the capacity to inactivate microbial spores.

six/ Agriculture

Biotechnology-based developments in agriculture over the past decade have focused on providing farmers with plants that resist insects and other pests and enabling the use of convenient, more environmentally friendly herbicides, with resulting improvements in sustainable farming practices. The next generation of biotechnology crops will include new plants capable of resisting more pests and diseases, further reducing agrochemical use, as well as crops with improved nutrient value. Biotechnology research is also directed toward using plants designed as factories for the production of compounds of high commercial value, such as pharmaceutical products. Maxygen's technologies can be used to create numerous commercial opportunities in these areas.

MolecularBreeding™ technologies can potentially provide these valuable benefits to agriculture:

Crop Protection



Improved Nutritional Quality

Yield Increase

Plants as factories

AGRICULTURE

Our agriculture business unit is dedicated to becoming a global leader in providing proprietary product solutions to important commercial problems in plant-based businesses through the application of advanced DNA breeding methods.

MARKET OPPORTUNITY

The agricultural biotechnology seed market was estimated at approximately $3 billion in sales in 2000. It is expected to grow to approximately $5–8 billion in sales by 2005 and to approximately $20–25 billion in sales by 2010. Biotechnology crops, first introduced to the market in 1996, have been adopted rapidly by farmers and were planted on 100 million acres in 2000. Biotechnology crops create value by reducing farmer costs and simplifying farming systems.

BUSINESS STRATEGY

We aim to provide customers with transgenic traits that enhance the performance and value of seed products that address the crop protection, materials, food and feed markets. We are initially entering the market through research and development relationships and through product development alliances with seed and plant propagation businesses. We believe that this strategy decreases the financial risks associated with product development and marketing while allowing us to capture significant value in agriculture.

TECHNOLOGY PLATFORM

We believe our MolecularBreeding™ directed molecular evolution technologies can be used to create numerous commercial opportunities in crop protection and plant quality traits. Existing commercial product performance can be enhanced by the technology; product concepts that have failed during development for reasons of inadequate efficacy may be able to be improved so they can be commercialized and new product concepts may be enabled by our technologies.

While exploiting the advantages of MolecularBreeding™ directed molecular evolution technologies to improve and develop new traits, we are committed to becoming experts with regard to the use of the following technologies:

HIGH-THROUGHPUT PLANT-BASED SCREENING OF GENE VARIANTS
HIGH-THROUGHPUT BIOASSAYS FOR INSECT, NEMATODE, AND FUNGAL PATHOGENS
CROP TRANSFORMATION METHODS

PRODUCTS / PIPELINE

Both in collaboration with our partners and internally, we are working on a broad portfolio of 14 potential products in areas of yield improvement and quality traits. We have retained significant rights to develop and market certain applications of the products resulting from the collaborations. In addition to the existing collaborations, we are currently pursuing and expect to pursue independent development of high-value agricultural products, and intend to enter into additional strategic alliances with leading agriculture companies.

We currently have two products in development, one through our collaboration with DuPont and one being developed internally at Maxygen.

ALLIANCES AGRICULTURE

SYNGENTA In June 1999, Maxygen entered into a five-year strategic collaboration with Zeneca Limited, a wholly owned subsidiary of AstraZeneca plc, now known as Syngenta, to utilize our MolecularBreeding™ directed molecular evolution technologies to improve the yield and quality of several of Syngenta's strategic crops. With global seed sales of $885 million, Syngenta currently holds 5% of the $9–11 billion global market in field crop seed and 11% of the $3–4 billion global market in vegetable and flower seed. We will receive research and development funding as well as license fees, milestone payments and royalties on product sales.

DUPONT In December 1998, Maxygen entered into a five-year strategic collaboration with Pioneer Hi-Bred International, Inc., a wholly owned subsidiary of E.I. duPont de Nemours and Company, to utilize our MolecularBreeding™ directed molecular evolution technologies to generate new gene variants for use in the development of specific crop protection and quality grain traits in corn, soybeans and certain other crops. With global seed sales of $1.8 billion, Pioneer Hi-Bred currently holds 18% of the global market in field crop seed, including 44% of U.S. seed corn sales and 19% of U.S. soybean seed sales. We will receive research and development funding as well as license fees, milestone payments and royalties on product sales.

seven/ Realizing the Promise

The medicines we take to grow old. / The food we eat to stay healthy.

The therapeutics we take to get better. / The energy we use to heat our homes.

The fuel we use to drive our cars. / The clothes we wear every day.

The paper on which we write our names. / The detergent we use to wash our clothes.

We are working to ensure that Maxygen's technologies will affect every part of our lives for the better.

Due to the breadth of applicability of our technologies, we believe that one day people may use Maxygen products in every aspect of their lives.

Any product or process that contains or is made with proteins could potentially be optimized or improved using Maxygen technologies. We hope to create more cost-effective products, environmentally friendly versions of today's products as well as products with completely new activities for meeting many unmet needs in medicine and industry.

eight/ Technology Platform

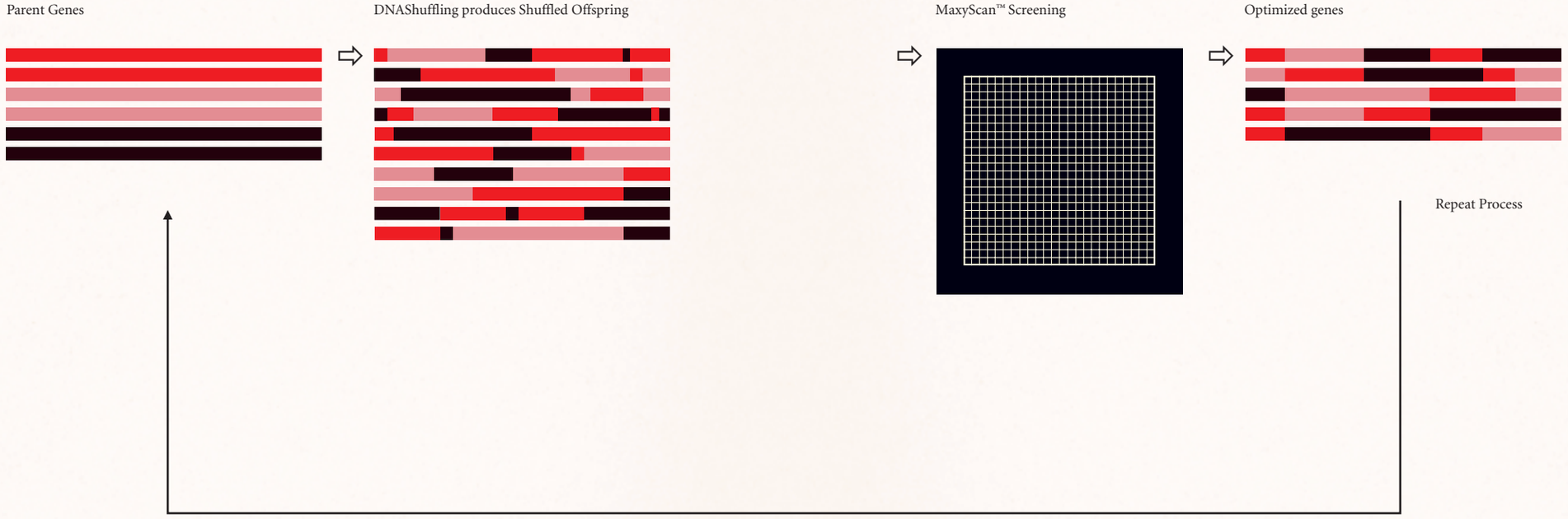
Our proprietary MolecularBreeding™ directed molecular evolution technologies capture nature's way of generating high-quality genetic diversity—sexual recombination—to allow for the development of many high-value biotechnology products.

MolecularBreeding™ technologies consist of proprietary recombination and screening technologies that we believe are some of the most powerful and effective tools for creating products from the rapidly growing number of genes identified by the worldwide genomics industry.

DIRECTED MOLECULAR EVOLUTION TECHNOLOGIES

Maxygen's proprietary recombination technologies called MolecularBreeding™ represent an integrated platform in which the desired genetic trait is generated or optimized in a two-step process that mimics the natural events of evolution. First, genes undergo our proprietary recombination process called DNAShuffling, generating a diverse library of novel sequences. Second, the individual gene products of the library are subsequently selected using our specialized MaxyScan™ screening systems. The gene products that show improvements in the desired characteristics become the initial lead candidates. After confirmation of activity, the initial lead candidates can then be used as the genetic starting material for additional rounds of shuffling. Once the level of improvement needed for the particular commercial application is achieved, the group of lead candidates is moved forward to the product or process development stage.

MOLECULARBREEDING™



PRODUCT DEVELOPMENT TECHNOLOGY

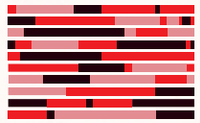
Maxygen has an integrated series of technologies to accelerate the product discovery process. Unlike some biotechnology companies who search for product candidates, we make them. We have an integrated process that starts with accessing genes, and ends with the selection of many potential product candidates to move through the development process.

INTEGRATED PRODUCT DEVELOPMENT PROCESS

Genes

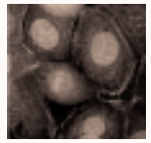
In-house Collection
Partners
Collaborators
Public Sources

Diversity Creation



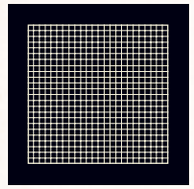
DNAShuffling
PEGylation
Glycosylation

Gene Expression



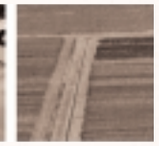
Mammalian
Plants
Insect
Fungi
Bacterial

Assay



Mass Spec.
In vivo Animal Assays
In vivo Plant Assays
Bioassays
Immunochemical Assays
Chemical Assays
Biochemical Assays

Improved Products



Vaccines
Protein Pharmaceuticals
Chemicals
Agriculture

Research Time

years

Cost/Risk

high

Knowledge of Mechanism Required

yes

Success Rate

low

Research Time

months

Cost/Risk

low

Knowledge of Mechanism Required

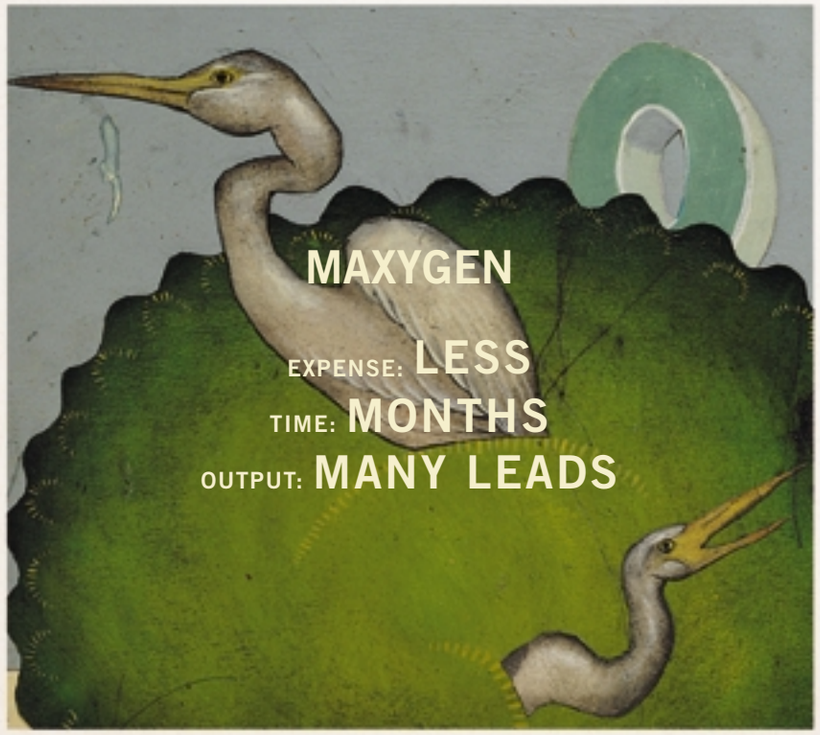
no

Success Rate

high

Maxygen's proprietary technologies have the ability to generate many possible solutions (product candidates) for the same commercial challenge. Most companies typically focus their efforts on pushing one product through the development process hoping that it will succeed in clinical trials or through manufacturing and eventually to market. In contrast, Maxygen has the ability to develop many potential product candidates so if one candidate fails, we can select one of our alternate candidates without wasting millions of dollars and years of research time going back to the drawing board.

Typical drug development and biotechnology research is like searching for the needle in the haystack. Most companies spend tens to hundreds of millions of dollars and many years searching for one compound to take into the development pipeline. For each product opportunity Maxygen's technologies can generate multiple lead candidates to take into the development pipeline. It often takes us only a few months to identify product candidates at a fraction of the cost of traditional product discovery.



PATENTS

We believe that patents and other proprietary rights are important to our business. Our strategy is to file patent applications to protect our intellectual property rights. We also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position.

We have an extensive patent portfolio of more than 40 issued U.S. patents including patents both owned by and licensed to Maxygen. We also have more than 450 pending U.S. and international counterpart applications that we have filed on our own behalf or licensed from others relating to our portfolio of technologies and the application of these technologies in diverse industries, including agriculture, protein pharmaceuticals, vaccines, gene therapy, chemicals, and discovery or modification of small molecules.

We have an extensive patent portfolio including 13 issued U.S. patents relating to our proprietary MolecularBreeding™ directed molecular evolution technologies. Counterpart applications of these U.S. patents are pending in other major industrialized countries. We have an additional 231 pending U.S. patent applications and 133 pending foreign and international counterpart applications relating to our MolecularBreeding™ directed molecular evolution technologies and specialized screening technologies, and the application of these technologies to diverse industries including agriculture, protein pharmaceuticals, vaccines, gene therapy, chemicals and therapeutic drugs.

Our expanding patent estate provides us with an increasingly broad and unique platform from which to create and improve therapeutic, industrial and other products. Patents owned by us or for which we have exclusive licenses cover a broad range of activities surrounding recombination-based directed molecular evolution including:

- methods for template-based gene recombination to produce chimeric genes;
- methods for recombining nucleic acid segments produced by incomplete nucleic acid chain extension reactions to produce chimeric genes including the staggered extension process (StEP);
- methods utilizing reiterative screening or only a single cycle of screening;
- methods of combining any mutagenesis technique with DNA recombination methods to produce new chimeric genes;
- methods using synthesized nucleic acid fragments; and
- *in vivo* and *in vitro* recombination methods of the above, in a variety of formats.

Such patents reinforce our preeminent position as the industry leader in recombination-based directed molecular evolution technologies for the preparation of chimeric genes for commercial applications.

We have exclusively licensed patent rights and technology for specific uses from Novozymes, the California Institute of Technology (Caltech), Stanford University, the University of Washington and GGMJ Technologies, L.L.C.

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WO 99/41369 AUGUST 19, 1999 *Genetic Vaccine Vector Engineering*
WO 99/41383 AUGUST 19, 1999 *Antigen Library Immunization*
WO 99/41402 AUGUST 19, 1999 *Targeting of Genetic Vaccine Vectors*
WO 99/51774 OCTOBER 14, 1999 *Method for Obtaining a Plant with a Genetic Lesion in a Gene Sequence*
WO 99/57128 NOVEMBER 11, 1999 *Optimization of Pest Resistance Genes using DNA Shuffling*
WO 99/65927 DECEMBER 23, 1999 *Method for Producing Polynucleotides with Desired Properties*
WO 00/04190 JANUARY 27, 2000 *Evolution of Whole Cells and Organisms by Recursive Sequence Recombination*
WO 00/09682 FEBRUARY 24, 2000 *DNA Shuffling of Monooxygenase Genes for Production of Industrial Chemicals*
WO 00/09727 FEBRUARY 24, 2000 *DNA Shuffling to Produce Herbicide Selective Crops*
WO 00/12680 MARCH 9, 2000 *Transformation, Selection, and Screening of Sequence-Shuffled Polynucleotides for Development and Optimization of Plant Phenotypes*
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WO 00/20573 APRIL 13, 2000 *DNA Shuffling to Produce Nucleic Acids for Mycotoxin Detoxification*
WO 00/28008 MAY 18, 2000 *Modified Ribulose 1,5-Bisphosphate Carboxylase/Oxygenase*
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WO 00/42560 JULY 20, 2000 *Methods for Making Character Strings, Polynucleotides and Polypeptides Having Desired Characteristics*
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WO 00/61731 OCTOBER 19, 2000 *Modified Starch Metabolism Enzymes and Encoding Genes for Improvement and Optimization of Plant Phenotypes*
WO 00/61740 OCTOBER 19, 2000 *Modified Lipid Production*
WO 01/00234 JANUARY 4, 2001 *Methods and Compositions for Engineering of the Attenuated Vaccines*
WO 01/02865 JANUARY 11, 2001 *Cyclotron Mass Spectrometry Screening*
WO 01/04287 JANUARY 18, 2001 *A Method for Preparing Modified Polypeptides*

PATENTS NUMBER / DATE ISSUED / TITLE

PARTIAL LIST OF PATENTS AND APPLICATIONS LICENSED BY MAXYGEN

6,159,687 DECEMBER 12, 2000 *Methods for Generating Recombined Polynucleotides*
6,159,688 DECEMBER 12, 2000 *Methods for Producing Polynucleotide Variants*
6,153,410 NOVEMBER 28, 2000 *Introduction of Nucleic Acid into Skin Cells by Topical*
6,177,263 JANUARY 23, 2001 *Recombination of Polynucleotide Sequences Using Random or Defined Primers*
6,087,341 JULY 11, 2000 *Introduction of Nucleic Acid into Skin Cells by Topical Application*
5,824,469 OCTOBER 20, 1998 *Method for Producing Novel DNA Sequence with Biological Activity*
5,348,867 SEPTEMBER 20, 1994 *Expression of Proteins on Bacterial Surface*
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WO 97/25410 JULY 17, 1997 *Method for* In Vitro *Production of a Mutant Library in Cells*
WO 98/28416 JULY 2, 1998 In Vivo *Recombination*
WO 98/41653 SEPTEMBER 24, 1998 *Polynucleotide Variants*
WO 98/05765 FEBRUARY 12, 1998 *Double-Stranded DNA with Cohesive End(s), and Method of Shuffling DNA Using the Same*
WO 98/41623 SEPTEMBER 24, 1998 *Shuffling of Heterologous DNA Sequences*
WO 98/41622 SEPTEMBER 24, 1998 *Polynucleotide Variants*
WO 98/05764 FEBRUARY 12, 1998 *Nucleic Acid Pool and Method for Producing the Same*
WO 98/05765 FEBRUARY 12, 1998 *Double-Stranded DNA with Cohesive End(s), and Method of Shuffling DNA Using the Same*
WO 98/42832 OCTOBER 1, 1998 *Recombination of Polynucleotide Sequences Using Random or Defined Primers*
WO 99/29902 JUNE 17, 1999 *Method for Creating Polynucleotide and Polypeptide Sequences*
WO 00/06718 FEBRUARY 10, 2000 *Variants of Eukaryotic Proteins that are Expressible in Functional Form in* E. coli *by Directed Evolution*
WO 99/41366 AUGUST 19, 1999 *Introduction of Nucleic Acid into Skin Cells by Topical Application*
WO 93/10214 MAY 27, 1993 *Expression of Proteins on Bacterial Surface*
WO 98/49286 NOVEMBER 5, 1998 *Directed Evolution of Enzymes and Antibodies*

nine/ Maxyfolk

Maxygen benefits from its pedigree as a Zaffaroni company and from decades of knowledge and expertise in creating value through platform technologies. We are a multidisciplinary team of scientists, lawyers and business people who are responsible for the success of our company today and in the future. Our people believe in the power of our technologies and in our vision to pioneer the new industrial revolution, providing a continuous stream of scientific advances and novel products to improve life. We are highly competitive but value the importance of collaborative and mentoring relationships throughout our environment. We thrive on challenges, complexity and change, and we think that work should be fun and rewarding.

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A, B **Agrochemical** Term for any artificially produced chemical (such as a feed additives pharmaceutical, fertilizer or pesticide) used in agriculture to improve crop or livestock production. **Amino Acid** Any of a class of 20 molecules that are combined to form proteins in living things. The sequence of amino acids in a protein and hence protein function are determined by the genetic code. **Antibiotic** A substance such as penicillin or tetracycline that is able to kill or inhibit the growth of certain microorganisms. **Antibody** A protein that is produced in response to an antigen (often a virus or bacterium). It is able to combine with and neutralize the antigen. **Antibody Technology** Techniques for the synthesis of polyclonal and monoclonal antibodies for use in research, diagnostics and therapeutics. **Antigen** A substance (e.g., a virus or bacterium) that causes an immune system response. **Bioassay** An assay for the activity or potency of a substance that involves testing its activity on living material. **Biocatalyst** A substance which catalyzes biochemical processes in living things. The most well-known example is the enzyme. **Biotechnology** The industrial use of living organisms or biological techniques developed through basic research. Biotechnology products include antibiotics, insulin, interferon, recombinant DNA, and techniques such as waste recycling. Much older forms of biotechnology include breadmaking, cheesemaking and brewing wine and beer.

C, D, E, F **Catalyst** A substance which speeds up a chemical or biochemical reaction which, without the catalyst, would have occurred anyway but at a much slower rate. The catalyst is never used up in the reaction, so there is always the same amount at the start as at the end of the reaction. Enzymes are biological catalysts. **Cell** An autonomous self-replicating unit (in principle) that may constitute an organism (in the case of unicellular organisms) or be a subunit of multicellular organisms in which individual cells may be more or less specialized (differentiated) for particular functions. All living organisms are composed of one or more cells. Implicit in this definition is that viruses are not living organisms—and since they cannot exist independently, this seems reasonable. **DNA (deoxyribonucleic acid)** The molecule that encodes genetic information. DNA is a double-stranded molecule held together by weak bonds between base pairs of nucleotides. The four nucleotides in DNA contain the bases: adenine (A), guanine (G), cytosine (C), and thymine (T). In nature, base pairs form only between A and T and between G and C; thus the base sequence of each single strand can be deduced from that of its partner. **DNAShuffling** A proprietary Maxygen process for recombining genes into a diverse high-quality library of novel DNA sequences known as gene variants. See MolecularBreeding. **Enzymes** Proteins that act as catalysts, speeding the rate at which biochemical reactions proceed but not altering the direction or nature of the reactions.

G, H **Gene expression** The full use of the information in a gene via transcription and translation leading to production of a protein and hence the appearance of the phenotype determined by that gene. Gene expression is assumed to be controlled at various points in the sequence leading to protein synthesis and this control is thought to be the major determinant of cellular differentiation in eukaryotes. **Gene family** A set of genes coding for diverse proteins which, by virtue of their high degree of sequence similarity, are believed to have evolved from a single ancestral gene. An example is the immunoglobulin family where the characteristic features of the constant-domains are found in various cell surface receptors. **Gene cloning** The insertion of a DNA sequence into a vector that can

then be propagated in a host organism, generating a large number of copies of the sequence. **Genomics** The study of genomes, which includes genome mapping, gene sequencing and gene function. **Genomic library** Type of DNA library in which the cloned DNA is from an organism's genomic DNA. As genome sizes are relatively large compared to individual DNAs, a different set of vectors is usually employed in addition to plasmid and phage; see bacterial and yeast artificial chromosomes, cosmid. **Glycoprotein** A protein linked to a sugar or polysaccharide which have components of receptor molecules on the outer surface of cells. **Glycosylation** The adding of a polysaccharide (chain of sugars) to a polypeptide (chain of amino acids) in order to make a glycoprotein. This is done within the endoplasmic reticulum while the polypeptide is being made. **Green Fluorescent Protein (GFP, fluorophore)** A protein found in jellyfish which fluoresces, or glows, green visible light when excited by UV light with a wavelength of 395 nanometers. It can function as a biological marker when attached to other proteins. The structure of the protein is cylindrical, with the glowing component, an amino acid complex called a fluorophore, in the middle of it. **Growth Hormone** A hormone which stimulates the growth of bones and muscles in juvenile animals (including human children). It can also be artificially added to adult domestic animals to increase the growth of muscles or production of milk in adult animals (see porcine somatotropin and bovine somatotropin). It is produced by the pituitary gland in the brain. **Herbicide** A chemical used to kill or control the growth of plants. Some herbicides (such as synthetic auxins and triazine) selectively kill broad-leaved plants while leaving grass-leaved plants (i.e., cereal crops) unharmed. Other herbicides, such as paraquat, kill all plants. Herbicide use has dramatically increased crop yield worldwide but has caused serious environmental problems, polluting soil and water and causing health hazards for humans and animals. See also pesticide.

I, J, K **Immune Protein** An immunoglobulin or antibody protein which is produced in reaction to the presence of a specific antigen, and which then reacts with that antigen. ***In Vitro* Protein Synthesis** Translation of mRNA molecules into polypeptides within a laboratory mixture which contains ribosomes and all of the necessary components (as opposed to translation within a living cell, where protein synthesis normally occurs). **Insulin** A polypeptide hormone produced by cells in the islets of Langerhans in the pancreas. Insulin decreases the levels of glucose in the blood and regulates the metabolism of glucose, fats and proteins. In order to meet the demand for insulin needed by diabetics, the hormone is mass-produced with the aid of genetically engineered bacteria, but can also be taken from pigs and cattle. **Interferon** Any of several glycoproteins that help the body fight off viral infections. During a viral invasion, infected cells produce three kinds of interferon (alpha, beta, and gamma) which circulate in the blood stream and help make uninfected cells immune to the attack. Interferon was discovered in 1957 by Alick Isaacs. **Interferon Alpha** The main type of interferon (a glycoprotein) produced by the white blood cells. It is also manufactured pharmacologically to treat hairy-cell leukemia. ***In Vitro* Transcription / *In Vitro* Translation** The transcription of a DNA molecule into mRNA molecules, and the subsequent translation of the mRNA molecules into polypeptides, within a laboratory mixture which contains ribosomes, enzymes, and all of the necessary components (as opposed to transcription and translation within a living cell, where they normally occur).

L, M, N, O, P **MaxyScan™** A series of proprietary Maxygen screening capabilities for the selection of desired commercial properties from the library of gene variants. See MolecularBreeding. **Molecular biology** The study of the biochemical and molecular processes within cells, especially the processes of replication, transcription, and translation. **MolecularBreeding™** Directed molecular evolution technologies invented by Maxygen which consist of two components. The first is DNAShuffling, a proprietary process for recombining genes into a diverse high-quality library of novel DNA sequences known as gene variants. The second is MaxyScan,™a series of proprietary screening capabilities for the selection of desired commercial properties from the library of gene variants. The combination of DNAShuffling recombination technologies and MaxyScan™ specialized screening allows for the identification of new potential products in a more rapid and cost-effective manner. **Pesticide** A chemical which is used to kill unwanted organisms such as rats, insects, nematodes, etc. Pesticides often act as nerve poisons, and they are hazardous to animals and humans (some pesticides can cause nerve or liver damage, birth defects and cancer). See biological magnification and herbicide. **Point mutation** A change in a single base pair of a DNA sequence in a gene. **Protein** A large molecule composed of one or more chains of amino acids in a specific order; the order is determined by the base sequence of nucleotides in the gene coding for the protein. Proteins are required for the structure, function, and regulation of the body's cells, tissues, and organs, and each protein has unique functions. Examples are hormones, enzymes, and antibodies.

Q, R, S, T **Recombinant DNA** Recombinant DNA is a fragment of DNA incorporated artificially into the DNA molecule of a suitable vector so that it can express itself many times. This way a large quantity of the DNA in question can be obtained. The DNA is usually one that contains genes of interest, such as interferon, insulin, or growth hormone. The DNA may also be intended to fix mutated genes causing diseases, such as hemophilia or sickle cell anemia. The vector could be plasmids, bacteriophages, and cosmids (packaged plasmid DNA into a phage particle). **Recombinant DNA technologies** Procedures used to join together DNA segments in a cell-free system (an environment outside a cell or organism). Under appropriate conditions, a recombinant DNA molecule can enter a cell and replicate there, either autonomously or after it has become integrated into a cellular chromosome. **RNA (ribonucleic acid)** A chemical found in the nucleus and cytoplasm of cells; it plays an important role in protein synthesis and other chemical activities of the cell. The structure of RNA is similar to that of DNA. There are several classes of RNA molecules, including messenger RNA, transfer RNA, ribosomal RNA, and other small RNAs, each serving a different purpose. **Transcription** The synthesis of an RNA copy from a sequence of DNA (a gene); the first step in gene expression. Compare translation.

U, V, W **Vaccine** A preparation of dead or weakened pathogens, or of derived antigenic determinants, that is used to induce formation of antibodies or immunity against the pathogen. **Virus** A noncellular biological entity that can reproduce only within a host cell. Viruses consist of nucleic acid covered by protein; some animal viruses are also surrounded by membrane. Inside the infected cell, the virus uses the synthetic capability of the host to produce progeny virus. A computer program designed to covertly infiltrate and

usually damage a computer system, either by repeatedly copying itself so that it takes up needed memory or by erasing, modifying or damaging other files. **Watson, James Dewey** An American biochemist and alumnus of Indiana University born in 1928 who was one of three people to win the Nobel Prize in 1962 for the category of physiology or medicine. He and Francis Crick, an English biologist, discovered the double-stranded helix structure of the DNA molecule and built the Watson-Crick model of this structure. Their work was heavily based on the work of Maurice Wilkins (who also won the Nobel Prize in physiology or medicine in 1962) and Rosalind Franklin (who died before the 1962 Nobel Prize winners were selected). The model they postulated is the accepted model used today. **Wild type** The naturally-occurring, normal, non-mutated version of a gene. The original parent strain of a virus, bacteria, fruit fly, mouse, or other laboratory test organism. Often refers to how organisms are found naturally, in the wild, before mutations were induced by researchers.

X, Y, Z **X chromosome** A sex chromosome found in humans, fruit flies, and certain other animals where the male is the heterogametic sex. In the XY set of sex chromosomes, the female has two X chromosomes and the male has only one (and usually also a Y chromosome). In plants which use the XY system, this chromosome is female-determining. **X-ray crystallography** A technique of determining a molecule's three-dimensional structure by analyzing the x-ray diffraction patterns of crystals made up of the molecule in question. **Y chromosome** A sex chromosome found in humans, fruit flies, and certain other animals where the male is the heterogametic sex. The Y chromosome causes the individual to become male in most mammal species and carries few other genes besides those dictating sperm development and triggering appropriate hormonal output. It is part of the XY set of sex chromosomes, where the male has only one X chromosome and usually a Y chromosome (fruit fly males can also have just one X and nothing else), and the female has two X chromosomes. **Yield** Standing crop expressed as a rate, i.e., grams dry weight per meter square per day. **Zygomycetes** A class of fungi that usually has a coenocytic mycelium with chitinous cell walls. Sexual reproduction normally involves the formation of zygospores.The group lacks motile spores. **Zygote** The single cell formed by the union of a sperm and an ovum or other male and female gametes.

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MAXYGEN, INC.

515 Galveston Drive
Redwood City, CA 94063
Tel (650) 298 5300
Fax (650) 364 2715
www.maxygen.com

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements that relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology, such as "may", "can", "will", "should", "expect", "plan", "anticipate", "believe", "estimate", "predict", "intend", "potential" or "continue" or the negative of these terms or other comparable words. Examples of these forward-looking statements include, but are not limited to, statements regarding the following:

our MolecularBreeding™ directed molecular evolution and other technologies and processes;
our ability to realize commercially valuable discoveries in our programs;
the attributes of any products we develop;
our future financial performance;
our intellectual property portfolio and rights;
our business strategies and plans; and
our ability to develop products suitable for commercialization.

These statements are only predictions. Risks and uncertainties and the occurrence of other events could cause actual results to differ materially from these predictions. Among other things these risks and uncertainties include, but are not limited to: our limited operating history; the increasingly competitive biotech industry; our ability to produce viable product candidates and to commercialize those candidates; the inherent uncertainties of biological research; the developing nature of our technologies; changing research and business priorities of Maxygen; the potential reluctance of people to embrace biological based products and processes; competitors producing superior products; and our future ability to enter into and/or maintain research and commercialization collaborations. These and other risk factors are more fully discussed in our Annual Report on Form 10-K for the year ended December 31, 2000, including under the caption "Risk Factors", and in our other periodic reports filed with the SEC, all of which are available from Maxygen or from the SEC's website (www.sec.gov).

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements. We disclaim any obligation to update or revise any forward-looking statement contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions, or circumstances on which any such statement is based.

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