Around The Clock Therapy Through Continuous Dosing

DURECT ANNUAL REPORT 2000



Through Continuous Dosing

DURECT Corporation is pioneering the development and commercialization of pharmaceutical systems to deliver the right drug to the right site in the right amount at the right time.

DURECT's pharmaceutical systems combine technology innovations from the medical device and drug delivery industries with proprietary pharmaceutical and biotechnology drug formulations. These capabilities can enable new drug therapies or optimize existing therapies based on a broad range of compounds, including small molecule pharmaceuticals as well as biotechnology molecules such as proteins, peptides and genes.

DURECT's lead product in development, DUROS[®] sufentanil, is designed to deliver sufentanil on a continuous basis for 3 months for the treatment of chronic pain. DURECT's second product in development, DUROS hydromorphone, continuously delivers hydromorphone to the spine. DURECT is also selling FDA-cleared catheters for the delivery of fluids to the inner ear. Finally, DURECT manufactures, sells and distributes the ALZET[®] osmotic pump product for use in laboratory research.

CORPORATE MILESTONES

Initial Public Offering Completed September 2000

Construction of commercial manufacturing facility *Commenced October 2000*

Phase II clinical trial for DUROS sufentanil *Initiated December 2000*

Prototype design for DUROS hydromorphone *Completed December 2000*

Patient Enrollment for Phase II clinical trial for DUROS sufentanil *Completed March 2001*

Initiation of Phase III clinical trial for DUROS sufentanil *Expected during 2001*

Manufacture of ICH and Phase III product for DUROS sufentanil *Expected during 2001*

Initiation of Phase I clinical trial for DUROS hydromorphone *Expected during 2001*

TO OUR STOCKHOLDERS

2000 was an outstanding year for DURECT as we made substantial progress in many fundamental areas that have built value for our stockholders and have built the foundation for a strong future as a pharmaceutical systems company. Most of the credit for this goes to our employees whose hard work and dedication has been



responsible for our success. We have met our major milestones for 2000. We have completed two financings, including our initial public offering, which allowed the company to raise a total of \$117 million.

PRODUCT DEVELOPMENTS

In December 2000, we began our Phase II clinical trials for our lead product, DUROS sufentanil, for the treatment of chronic pain. In March 2001, we announced the completion of patient enrollment for our Phase II clinical trial of DUROS sufentanil. More than 50 patients at 10 clinical centers were enrolled in the trial over three months ahead of schedule, which we believe shows the potential benefits of this product for both patients and physicians.

Our second product in development, DUROS hydromorphone, continuously delivers hydromorphone to the spine. We have completed the prototype clinical system design and finalized our pharmaceutical formulation for the product.

MANUFACTURING CAPABILITIES

In October 2000, we commenced construction of our commercial manufacturing facility, which is expected to meet our production needs for our Phase III clinical trial and commercial launch for DUROS sufentanil. This facility is designed to use advanced procedures to enhance the DUROS manufacturing process, which should increase production capacity, and to allow pilot manufacturing for a number of additional products. The new facility comprises approximately 8,000 sq. ft. and is located at our headquarters in Cupertino, California. The facility will house a state of the art aseptic clean room space and an advanced manufacturing process capable of supporting clean assembly and automated aseptic filling.

RESEARCH ACTIVITIES

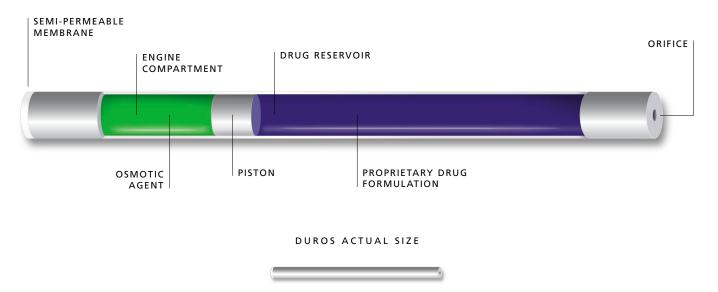
We continue to make progress with regard to our research in a number of therapeutic areas. We have focused research and development efforts on the application of pharmaceutical systems technologies to potential products for cardiovascular diseases, vascular grafts, cancer immunotherapy and other central nervous system disorders. We look forward to moving some of these products into development.

We are proud to have been able to assemble a staff with world-class expertise in pharmaceutical system technology and product development capability and experience. As a result, we have been able to make substantial progress in product development while simultaneously building laboratories, processes and manufacturing facilities. We expect this combination will produce results in 2001 and beyond as we pursue opportunities for innovation and partnership to build value for our stockholders and improve the quality of life for patients with chronic diseases and conditions throughout the world.

Sincerely,

James E. Brown, D.V.M. President and Chief Executive Officer

DUROS CUTAWAY DIAGRAM



A PHARMACEUTICAL SYSTEM

DURECT's initial portfolio of products combines the DUROS technology, a proven and patented drug delivery platform licensed for specified fields of use from ALZA Corporation, with drugs for which medical data on efficacy and safety are available. The DUROS technology platform is an implantable drug-dispensing osmotic pump. The system is a small titanium rod, which can be as small as a matchstick, designed to release drugs. Conceptually, the DUROS resembles a miniature syringe in which drug is pushed out in controlled, minute dosages. Water from the body is drawn through the semipermeable membrane into the pump by salt (osmotic agent) residing in the engine compartment. The water fills this compartment and pushes a piston to dispense small amounts of drug

PERFORMANCE CHARACTERISTICS OF THE DUROS TECHNOLOGY PLATFORM

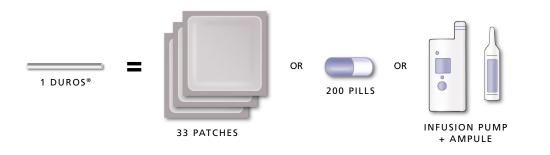
- The engine can generate pressure sufficient to deliver highly concentrated, viscous and non-waterbased drug formulations.
- The system can be engineered to deliver a drug formulation at the desired dosing rate with a degree of accuracy down to 1/100 of a drop per day on a continuous basis.
- The titanium shell of the system protects the drug formulation inside from contact with body fluids, thus protecting drug from degradation by enzymes and clearance processes within the body.

from the drug reservoir through the orifice. The osmotic engine does not require batteries, switches or other electromechanical parts to operate.

The amount of drug delivered is regulated by the semi-permeable membrane's control of body water entering the engine compartment and the concentration of the drug formulation. The DUROS can be programmed to deliver up to 1,000 mg of concentrated drug from months to one year. DURECT currently holds five issued patents and 25 applications pending for therapeutic indications. In addition, pursuant to DURECT's license agreement with ALZA, DURECT has a license under a portfolio of pending, issued and future patents of ALZA, which may cover DURECT's products depending on the attributes of those products.







Pharmaceutical systems can provide continuous, controlled dosing automatically to a patient. Most drugs require a minimum amount in the blood and tissues to have a therapeutic effect. Above a certain level, however, the drug can be overdosed, causing toxic or unwanted side effects. It is between these two levels where the optimal dosing level lies. The DUROS system can allow dosing within the optimal therapeutic range, as opposed to the peak and troughs associated with repeated injections or oral dosages. Additionally, by attaching a proprietary microcatheter to the DUROS, DURECT

BENEFITS OF CONTINUOUS DOSAGE VERSUS CONVENTIONAL DRUG ADMINISTRATION

- Better control of treatment regimens with added convenience
- Potential elimination of self-administered injections
- Improved efficacy
- Increased patient compliance
- Reduction of side effects

can deliver drugs directly to the intended site of action, potentially reducing side effects and increasing efficiency of total drug administered.

DUROS is implanted in a simple outpatient procedure that takes minutes to perform. Subcutaneous implantation and removal in the upper arm is easily performed in an outpatient procedure using a local anesthetic and special DUROS implanter. The titanium alloy used in the DUROS system reduces bioreactivity and facilitates explantation.



TREATING CHRONIC DISEASE: MOVING PATIENTS FROM DEPENDENCE TO INDEPENDENCE

According to the Centers for Disease Control, cardiovascular disease, cancer, neurodegenerative diseases, diabetes, arthritis, epilepsy and other chronic diseases claimed the lives of more than 1.7 million Americans in 1999. The Centers for Disease Control also estimate that the major chronic diseases are responsible for approximately 70% of all deaths in the U.S., and medical care costs for these conditions totaled more than \$400 billion annually. Currently, more than 60% of total healthcare spending in the U.S. is devoted to the treatment of chronic diseases. Demographic trends suggest that, as the U.S. population ages, the incidence of chronic disease and cost of treating it as a proportion of total health care spending will increase. While the pharmaceutical, biotechnology, drug delivery and medical device industries have

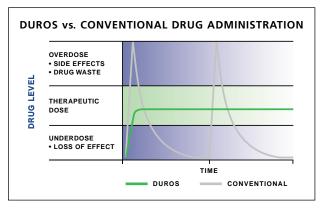
increased overall life expectancy and improved patient quality of life, many chronic debilitating diseases continue to be inadequately treated with current drugs or medical devices.

Due to our strong technological foundation and unique pharmaceutical systems approach to delivering drug in the right amount to the right place at the right time, DURECT is well positioned to capitalize on the advancements currently being made and address the challenging problems in the healthcare industry. DURECT's pharmaceutical systems provide a steady sustained release of drug that minimizes side effects by eliminating peaks and troughs associated with conventional drug dosing using pills, injections or patches. DURECT's pharmaceutical systems are suitable for providing long-term drug therapy because



they store highly concentrated, stabilized drugs in a small volume and can protect the drug from degrada-

tion by the body. This, in combination with DURECT's ability to deliver precise, accurate and continuous doses of a drug, allows the company to extend the therapeutic value of a wide variety of drugs, including those which would otherwise be ineffective, too unstable, too potent or



the body, which often limit the long-term use of many drugs. DURECT's pharmaceutical systems can thus

provide better therapy for chronic diseases or conditions by replacing multiple injection therapy or oral dosing, improving drug efficacy, reducing side effects and ensuring dosing compliance. DURECT's pharmaceutical systems can improve patients' quality of life by eliminating

cause adverse side effects. Delivering the drug directly to the intended site of action can also improve efficacy while minimizing unwanted side effects elsewhere in more repetitive treatments, reducing dependence on caregivers and allowing them to lead more independent lives.



Michelle Gaudette, Senior Director of Clinical Operations, and Judy Magruder, Vice President of Regulatory and Development, demonstrate the placement of the second product in development, DUROS hydromorphone.



DURECT Corporation executive management team which includes (from left to right): Thomas A. Schreck, Chief Financial Officer, Felix Theeuwes, Chairman and Chief Scientific Officer, and James E. Brown, President and Chief Executive Officer.

A NEW ERA OF THERAPEUTICS: OPTIMIZING & ENABLING DRUG DEVELOPMENT

In order to build an integrated pharmaceutical systems organization, a company must have the right people to accomplish its goals. DURECT's management team has extensive and broad experience from the pharmaceutical, biotechnology and medical device industries. Some key members of DURECT's executive management are highlighted below.

Dr. Felix Theeuwes, D.Sc. co-founded DURECT and serves as Chairman, Chief Scientific Officer and a Director. Dr. Theeuwes was formerly Chief Scientific Officer at ALZA Corporation, where he worked for nearly 30 years. Dr. Theeuwes has been a force in defining the field of controlled drug delivery and is an inventor of approximately 220 issued US patents. Products based on these patents sold over \$2.5 billon in 2000.

Dr. James E. Brown, D.V.M. co-founded DURECT and serves as President, Chief Executive Officer and a Director. Dr. Brown previously worked at ALZA Corporation as Vice President of Biopharmaceutical and Implant Research and Development from June 1995 to June 1998. Prior to that, Dr. Brown held various positions at Syntex Corporation, a pharmaceutical company, from October 1985 to May 1995 including Director of Business Development, Director of Joint Ventures for Discovery Research and Program Director for Syntex Research and Development.



completes development of tools for the lead product, DUROS sufentanil.

John Culwell, Senior Product Engineer, analyzes neutron ray scans of DUROS sufentanil.

struction plans for the commercial manufacturing facility.

Thomas A. Schreck co-founded DURECT and serves as Chief Financial Officer and a Director. Prior to founding DURECT, he founded and was President of Schreck Merchant Group, Inc., an investment bank specializing in private placements and mergers and acquisitions, from June 1994 to February 1998. Mr. Schreck also founded and served as Risk Manager to Genesis Merchant Group/Portola Capital Partners, L.P., a convertible arbitrage fund, from 1993 to 1994. He also served as a Manager of the Convertible Securities Department at Montgomery Securities, from 1988 to 1991.

Engineers, chemists and scientists with extensive industry expertise complement DURECT's executive management team. Our team is noted for its breadth and depth, having worked at a wide range of notable biotechnology, medical device, drug delivery and pharmaceutical industry leaders, including Abbott Laboratories, ALZA Corporation, Chiron, Genentech, Guidant, Medtronic and Roche. With regard to tenure in industry, DURECT averages over 15 years of experience per person in senior management, with each member possessing extensive experience developing and successfully bringing products to the marketplace.

DURECT has also recruited leading researchers and physicians to serve as scientific and medical advisors for DUROS sufentanil.

PRODUCT PIPELINE

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	RESEARCH	PRE-CLINICAL	IND	PHASE I	PHASE II	PHASE III	COMMERCIAL
Commercial							
INTRAEAR				(510K APPROVAL)			COMMERCIAL
ALZET							COMMERCIAL
Development							
CHRONIC PAIN							
SUFENTANIL							
CNS DISORDERS							
HYDROMORPHONE							
OTHERS							
EAR DISORDERS							
GENTAMYCIN							
OTHERS							
Research							
CARDIOVASCULAR DISEASE							
PROTEIN/PEPTIDE THERAPY							
VASCULAR GRAFT							
CANCER IMMUNOTHERAPY							
OTHER PHARMACEUTICAL SYSTEMS							

PRODUCTS AND MARKETS

DURECT's lead product in development, DUROS sufentanil, is designed to deliver sufentanil, an FDA-approved opioid, continuously for 3 months for the treatment of chronic pain. DURECT's second product, DUROS hydromorphone, continuously delivers hydromorphone, an opioid used as an analgesic, directly into the spinal cord by a catheter. The most common treatment for patients in the chronic pain market is opioids. The worldwide opiate market is over \$1 billion in sales annually. The chronic pain market includes patients with cancer, arthritis, osteoporosis, neuropathies, spinal cord injury,

Area of Focus/Drug

Statue

OTHER AREAS OF RESEARCH

DURECT is currently engaged in research and development efforts on the application of pharmaceutical systems technologies to potential products for cardiovascular diseases, vascular graft, cancer immunotherapy and other central nervous systems disorders. DURECT is also focused on therapeutic treatments that help to minimize hearing loss and preserve balance function. AIDS-related pain and patients with failed back surgery.

DURECT currently markets FDA-cleared catheters for the delivery of fluids to the inner ear. Meniere's disease is an inner ear disorder characterized by periods of dizziness, nerve deafness, and buzzing, or ringing in the ear. The U.S. market includes about three million patients, with about 100,000 new cases diagnosed per year.

DURECT also manufactures, sells and distributes the ALZET osmotic pump product for use in laboratory research.



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