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PIONEERING PREDICTIVE LIFE SCIENCE

COMPUGEN ANNUAL REPORT 2000



about compugen

About Compugen

Compugen is a pioneer in the field of predictive life science, achieved through the convergence of molecular biology and advanced computational technologies. The Company's research and development efforts are focused primarily on applications related to human therapeutics, and these efforts are commercialized in two ways. First, Compugen develops and markets platforms, tools and services that accelerate life science research, advance the study of proteins and protein pathways and support drug target discovery. Second, through its Novel Genomics Division, Compugen discovers and commercializes genes, proteins and drug targets. Products and services commercialized to date include: LEADS™, Gencarta™, DNA Chip design, Z3 2D-Gel Analysis, LabOnWeb.com and Bioccelerators. At present, the Company is pursuing collaborations with other organizations for the further development and commercialization of drug targets.

Compugen was founded in 1993, and its shares have been publicly traded (NASDAQ: CGEN) since August 2000. The Company's corporate offices are in Israel with a wholly owned United States subsidiary headquartered in New Jersey.

For additional information, visit Compugen's Corporate Web Site at www.cgen.com and the Company's Internet research engine for molecular biologists at www.labonweb.com.

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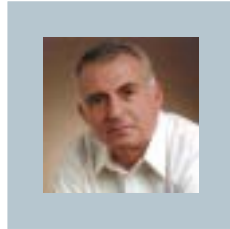
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Company Milestones

- 2000 Establishment of West Coast U.S. business development, marketing and sales office
Agreement with Motorola for DNA biochips design
Introduction of Z3 2D-Gel analysis system, Compugen's first proteomics product
Initial Public Offering (NASDAQ: CGEN)
- 1999 LabOnWeb.com inaugurated
Establishment of Novel Genomics Division to discover and commercialize intellectual property
- 1998 Parke-Davis becomes a corporate partner for LEADS™
U.S. Patent and Trademark Office selects Compugen hardware and software
- 1997 First version of the LEADS platform completed; discovery of thousands of new genes
Establishment of U.S. subsidiary – Compugen Inc. – in New Jersey
- 1996 Biocelerator established as “de facto” industry standard
- 1995 Development of proprietary algorithms and other analysis tools for genomic data mining
- 1994 Merck & Co., Inc. becomes first Biocelerator customer
- 1993 Compugen Ltd. incorporated in Israel



Letter to our Shareholders



DEAR SHAREHOLDERS,

We are pleased to present the highlights of our progress and achievements in this Annual Report, our first as a publicly traded company. While we are very proud of our accomplishments, we cannot ignore that, as we write this, the market value of our shares is approximately half the price at which our Initial Public Offering took place only eight months ago. Of course, we are seriously concerned that many of our investors, who demonstrated confidence in us by acquiring Compugen shares in the IPO, or on the open market, have as of this date, lost a substantial portion of the value of their investment in our Company. However, we are confident that as we continue the scientific and commercial progress described in this Report, building on the technologies and unique research team that we have established, the financial community will recognize Compugen's value and potential in the important, and rapidly changing, world of life science.

Our financial results for the year 2000, which was a year of significant growth for our Company, were consistent with expectations. During 2000, we successfully expanded our technology base and product pipeline, including our first product in the field of proteomics. In addition, we substantially increased our commercialization capabilities and financial strength. Revenues for the year 2000 totaled \$6.9 million compared to \$3.2 million for 1999, with the majority of our revenues for 2000 resulting from collaborations with Warner-Lambert Company, a wholly owned subsidiary of Pfizer Inc., Human Genome Sciences Inc. and the U.S. Patent and Trademark Office. The net loss for 2000 was \$13.4 million, or \$0.96 per share, compared with a net loss of \$8.1 million, or \$1.38 per share, for 1999. As of year-end 2000, cash and cash equivalents totaled \$91 million.

PREDICTIVE LIFE SCIENCE

Biology has traditionally been largely a descriptive science and experimentally based—resulting from a general lack of understanding of life processes at the molecular level. In contrast, the science of physics is a truly “predictive science.” Working with quantitative models, theoretical physicists make predictions that are tested through experimental methods, and new, often unexpected, experimental results in turn drive further development of theoretical models. This constant exchange between theorists and experimentalists is the primary force that drives scientific progress and, in the discipline of physics, has fueled the incredible “high-tech” breakthroughs we see today—in the fields of computer science, transportation, telecommunications and others.

We are now in the early stages of a similar evolution to a predictive science in the field of biology, or what is often referred to as “life science.” Some of the early milestones in this evolution have been the discovery of the “double helix” DNA, the ability to sequence individual nucleic acids within DNA, the understanding of how genes produce proteins and the availability of an enormous and rapidly growing quantity of biological data. And of course, the recent publication of the first draft of the entire human genome has been a key accomplishment. However, it is our belief that rapid progress in the evolution to predictive life science will require a new type of life science research and development effort, one composed of both theoretical scientists and experimental scientists, such as has been the case in physics. And it is exactly this type of research and development team, discussed more fully elsewhere in this Report, that Compugen has focused on establishing.

A good example of both the unique research capabilities that exist today at Compugen, and the potential for the evolution of life science to a predictive science, is our successful predictive modeling of the alternative splicing of genes. In the early to mid-1990s, it was generally believed that alternative splicing—the creation of more than one protein from a single gene—was an aberration. The central dogma of biology was “one gene produces one protein.” However, by 1997, Compugen's initial efforts to build a predictive model of alternative splicing led our scientists to believe that alternative splicing occurred in more than 30% of human genes. In 2001, the publication of the first complete draft of the human genome confirmed this prediction.

However, as a result of Compugen's early recognition of the importance of this phenomena and subsequent use of this knowledge in our research efforts, we currently possess what we believe is the most accurate view of the transcriptome—now recognized as the fundamental bridge between the genome and proteome. This understanding of the transcriptome is of tremendous value to our Company, and has been an important component in other innovative activities, such as our DNA chip design services and mass spectrometry analyses. It has also been a key factor in our discovery of thousands of genes and proteins that we believe would have been difficult to discover without our predictive models.

COMPUGEN – A LIFE SCIENCE COMPANY FOR THE 21ST CENTURY

Compugen's research efforts, as discussed above, have focused on building a unique expertise in theoretical biology, and combining that expertise with experimental biology. We are very pleased with both the results achieved to date and the solid foundation that has been established for future developments. From a commercial standpoint, these pioneering efforts provide us with two substantial, and growing, business opportunities. First, by constantly identifying and addressing key challenges faced by pharmaceutical and biotechnology research, we also identify opportunities for the commercialization of platforms, tools and services that will be required by those companies to accelerate their discovery programs. Examples of important challenges faced by pharmaceutical and biotechnology research for which we have developed state-of-the-art solutions include: understanding alternative splicing; analyzing genomic and expressed data together; quickly and precisely separating proteins and differential expression patterns; creating an accurate view of the transcriptome; and designing DNA chips that yield more reliable experimental information, including probe selection. These solutions serve as the basis for various platforms, tools and services now being commercialized to life science companies and research centers. During the second half of 2000, we introduced DNA chip design services and the Z3 2D-Gel analysis system, our first product for proteomics; in early 2001, we introduced Gencarta, an authoritative automated database of the genome, transcriptome and proteome. Each of these products, and others, are described in this Annual Report. Second, our pioneering research efforts are yielding important intellectual property discoveries in the form of genes, proteins, drug targets and diagnostic markers—essential elements in drug discovery. To date, we have discovered thousands of predicted genes and proteins, which are not available in the public domain. Our Novel Genomics Division is responsible

for validating, developing, patenting and commercializing this growing base of intellectual property. Currently this is being pursued primarily via licensing and various forms of collaborations with other organizations.

A UNIQUE RESEARCH TEAM

A key goal of Compugen has been to develop a research group consisting of scientists who individually possess a deep understanding of the capabilities, challenges and limitations of both molecular biology and advanced mathematics. Our approach to life science research has not been to have mathematicians, or bioinformaticians, work alongside, or assist molecular biologists, but rather to create a research effort encompassing both theoretical and experimental biologists. As a result, Compugen now has a uniquely experienced R&D team of over 130 professionals, with many years of predictive life science research experience. In addition, the scientists composing our theoretical biology group came to Compugen with many years of expert experience in disciplines such as physics, mathematics, encryption and signal processing, to name just a few—all of which are very relevant to the new world of predictive life science.

LOOKING TO THE FUTURE

We gratefully acknowledge that none of our accomplishments would have been possible without the dedication and talent of our exceptional staff and the continued support of our partners, customers and, of course, shareholders. We believe that during the next few years, major pharmaceutical and biotechnology companies will attempt to integrate predictive life science into their core research and development efforts. As this occurs, we expect that our potential business opportunities will grow significantly. The opportunities and challenges for predictive life science are enormous, encompassing human life and healthcare, as well as veterinary and agricultural applications. We are confident that our pioneering efforts in this field, and our accomplishments to date, will enable Compugen to continue to play a leading role as predictive life science evolves and grows, resulting in significant scientific and commercial success for our Company.



Martin Gerstel
Chairman of the Board



Mor Amitai, Ph.D.
President & Chief Executive Officer



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MERGING BIOLOGY AND ADVANCED COMPUTATIONAL TECHNOLOGIES.
EVOLVING BIOLOGY INTO A PREDICTIVE SCIENCE
LEADING TO THE CURES AND THERAPIES OF THE FUTURE.
UNDERSTANDING THE SCIENCE OF LIFE.



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Compugen is a pioneer in the dynamic convergence of life sciences and computational technologies. Without the integration of sophisticated computational technologies into life science research, much of the biological information hidden in genomic and expressed data would remain undeciphered and molecular biology would remain primarily an experimentally based science. Compugen was born of the need to turn vast amounts of data generated by advanced genome research into useful, relevant knowledge. Through its pioneering efforts, Compugen has become, and intends to remain, a key participant in the ongoing transformation of life science research into a predictive, quantitative science.



bridging the divide

Now that the human genome sequence is known, the next challenge lies in understanding protein interactions and functional pathways. The resulting understanding of some of the underlying biological processes will usher in a new era for therapeutic research and drug discovery. However, addressing this challenge requires an in-depth understanding of the set of all mRNAs of an organism, termed the “transcriptome”—the bridge between the genome and the proteome. Based on its predictive modeling of alternative splicing, Compugen observed in 1997 that the existence of splice variants is the rule rather than the exception in humans, and that

proteins vastly outnumber genes. The early understanding of this important component of the complex multi-layered map of life has been a key factor in positioning Compugen as a technological leader in the post-genomic era—developing tools and platforms that harness the power of the transcriptome in genomics, functional genomics and proteomics. Armed with these solutions, Compugen and its pharmaceutical, biotechnology and other research partners and customers, are now beginning to apply this knowledge to accelerate the discovery of new drug targets, therapeutics and diagnostic markers.

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BRIDGING THE GAP
BETWEEN THE GENOME AND
THE PROTEOME.
UNDERSTANDING AND
APPLYING THE
TRANSCRIPTOME IN THE
PROCESS OF UNCOVERING
THE SECRETS OF LIFE.



discovering

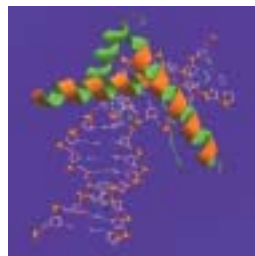
ORIGINAL SCIENTIFIC
RESEARCH. DISCOVERING KEY
BUILDING BLOCKS THAT WILL
HELP RESEARCHERS IMPROVE
THE QUALITY OF LIFE.

Compugen's Novel Genomics Division, established in 1999, utilizes the capabilities of the Company's pioneering tools and platforms to discover and commercialize genes, proteins, drug targets and diagnostic markers. Through collaborative efforts with third parties, Compugen expects to make significant discoveries with potential pharmaceutical, therapeutic and diagnostic applications. Additional responsibilities of the Novel Genomics Division's in-house molecular biology laboratories are the testing of the Company's tools and platforms and the verification of discoveries predicted through

Compugen's proprietary analysis capabilities. To date, the Novel Genomics Division has identified full or partial sequence information for thousands of predicted genes that are believed to be novel, and thus far not identified in existing public databases. A number of these genes are being patented by the Company. Compugen is also pursuing collaborations with other organizations, such as licensing agreements with pharmaceutical and biotechnology companies, for the further development and commercialization of drug targets.

Gen

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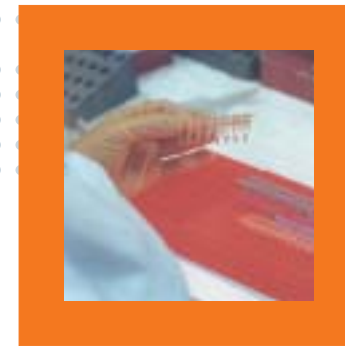
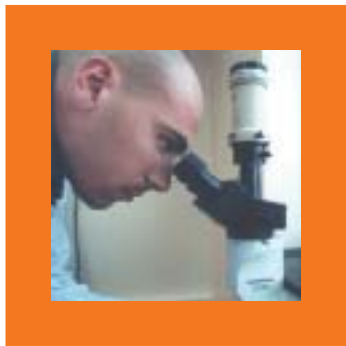
implementing

MATHEMATICIANS, BIOLOGISTS,
COMPUTER SCIENTISTS, PHYSICISTS
AND CHEMISTS WORKING TOGETHER.
IMPLEMENTING NEW APPROACHES IN
LIFE SCIENCE RESEARCH.

Compugen brings together a Research and Development team with exceptional multidisciplinary experience and backgrounds—the essential starting point for establishing R&D capabilities to advance predictive life science. More importantly, this unique combination of professionals with prior training in the life sciences, physical sciences and mathematics, has worked together to create and use the knowledge, tools and platforms required for the ongoing transition of biology into a predictive, quantitative science. As a result of this, Compugen's R&D team, at the outset largely made up of mathematicians, computer scientists and physicists working closely with biologists, can now best be described as a team of theoretical biologists supported by in-house molecular biology laboratories. It is in these laboratories that

the Company's theories and predictions are experimentally validated, and where original genomic and proteomic research takes place. Compugen's unique, highly talented and experienced team has already established an impressive record of accomplishments, measured by the Company's growing base of proprietary technologies, innovative tools and platforms that address important challenges faced in pharmaceutical research, and an extensive portfolio of proprietary genes and proteins. With this team in place, Compugen is now poised to make a significant impact on the continuing evolution of predictive life science—and the resulting acceleration of the discovery of the therapeutic and diagnostic solutions of the future.

Scientific



Products & Services

Parke-Davis becomes the first partner for
Compugen's LEADS platform, signing a three-year,
multi-million dollar agreement.
(November 1998)

GENOMICS

LEADS™

The LEADS discovery platform incorporates the modeling of biological phenomena—such as alternative splicing, chimeric sequences and intron contamination—in order to uncover the underlying biological and pharmaceutical meaning inherent in raw sequence data. Compugen's proprietary LEADS algorithms enable the discovery of putative genes through the clustering and assembly of ESTs and genomic sequences. In addition, LEADS utilizes bioinformatics and pharmacoinformatics data mining steps to yield a wealth of information significant for the prediction of the biological functions of these genes, and their pharmaceutical potential.

The LEADS platform is one of Compugen's proprietary technologies that is enhancing the ability of Compugen and its pharmaceutical and biotechnology partners to extract useful information from genomic and protein data, accelerating the discovery of new drugs and other products.

Gencarta™

GENOMICS

"Our agreement with Compugen is an important milestone because we will have access to Compugen's proprietary and comprehensive gene and protein database and to its advanced data mining tools that can provide significant insight to genomic targets at a very early stage of screening. We have been very impressed with the capacity of the Gencarta™ database."

Dr. Ken Carter,
President and Chief Executive Officer,
Avalon Pharmaceuticals, Inc.

GeneGuide™

GeneGuide provides a comprehensive report on a particular gene. Each report represents a single entry of Gencarta containing all the information regarding the particular gene or sequence of interest and, like Gencarta, is a derivative of Compugen's proprietary LEADS platform. Thus, GeneGuide enables researchers to quickly and efficiently obtain large amounts of targeted information on specific genes or sequences of interest.



GENOMICS



Since 1998, the United States Patent and Trademark Office has relied on Compugen's Biocelerator to examine patent submissions of DNA sequences.

"Compugen's technology provides us with a comprehensive analysis of our disease related genes in one package... The access to novel splice variants should provide additional insights into tissue-specific or disease-specific expression patterns and gene functions and open the gate for new patent opportunities."

Dr. Peter Heinrich,
Chief Executive Officer,
MediGene AG



Biocelerators

Combining advanced throughput and computational power, the Biocelerator special purpose computer accelerates homology analysis. Biocelerators enable users to run full biological database searches using high-speed, sensitive and rigorous search algorithms.

LabOnWeb.com

LabOnWeb.com is Compugen's life science research engine for genomic, proteomic and transcriptome analysis, offering researchers access to some of the Company's services and capabilities over the Internet. A Web-based query tool designed to accelerate work in the laboratory, LabOnWeb.com improves the quality and accuracy of experiments, simplifies the delivery of information and helps researchers make more informed decisions throughout the discovery process. LabOnWeb.com offers single-source access to an abundance of public and proprietary data, including exclusive access to tens of thousands of new gene records.



FUNCTIONAL GENOMICS



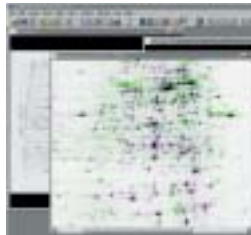
DNA Chip Design

Compugen's DNA Chip Design service leverages the Company's LEADS™ platform and proprietary chip design algorithms to provide high quality "content" for DNA Chips. The DNA Chip Design capabilities address many of the current challenges associated with specific and sensitive probe design. The service accurately accounts for redundancy, sequencing errors associated with public databases, probe specificity and cross homology, in addition to considering alternative splicing events that often result in multiple representations of a single gene, and difficult to interpret experimental results. Compugen's DNA Chip Design service is the first of a number of planned products addressing the key needs in the emerging, and rapidly growing area of functional genomics.

"We believe that Compugen's LEADS™ technology platform and DNA Chip Design tools offer significant potential to enhance the utility and applications for DNA biochips."

Nicholas Naclerio,
Vice President and General Manager,
Motorola Inc. BioChip Systems Business

PROTEOMICS



"Compugen's Z3 image analysis software is not only by far the best solution I know for comparison and analysis of 2D-Gels, but also represents a great step forward in the automation process of the proteomic analysis. We have been working with this product for more than six months, and it is much appreciated by the scientists involved in proteomics research."

Dr. Fabienne Parker,
Proteomics, Aventis Pharma



Z3 2D-Gel Analysis

Compugen's Z3 is an automatic, high-throughput 2D-Gel analysis system that delivers exceptional reliability, accuracy and speed in modern proteomic research by using advanced algorithms to achieve fully automatic image alignment registration. The Z3 proprietary differential expression algorithms provide substantially improved accuracy over traditional methods. In addition, its breakthrough "raw master gel" technology is designed to maximize the amount and quality of information derived from repeat runs of the same sample. Z3's advanced computational technologies are now enabling a growing list of users to design, perform and analyze larger scale, more complex 2D-Gel experiments.