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Annual Report 2001

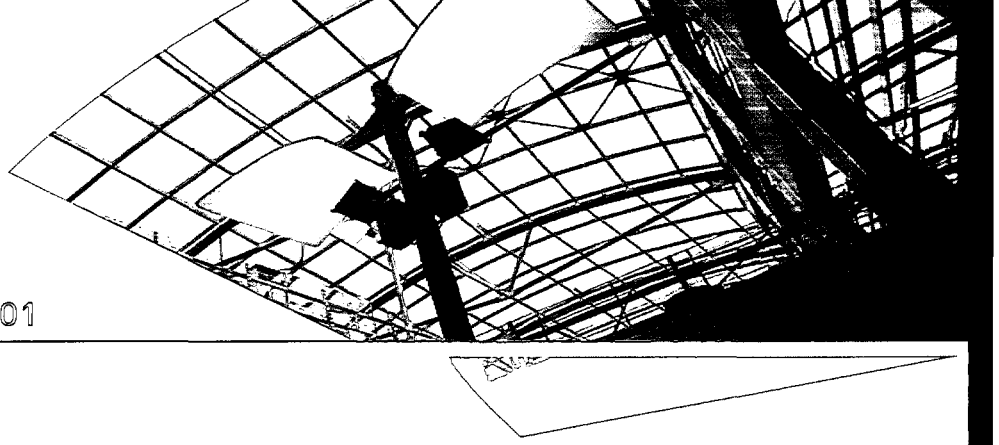
deCODE genetics

mission statement

deCODE is delivering on the promise of the new genetics℠

We are using population genomics to create a new paradigm for healthcare. With our uniquely comprehensive population data, we are working to turn our pathbreaking research on the genetic causes of common diseases into a growing range of products and services — in gene discovery, pharmaceuticals, DNA-based diagnostics, pharmacogenomics, in silico discovery tools, bioinformatics and medical decision support systems.

We believe that our unrivalled capabilities in gene discovery, together with our proprietary bioinformatics and integrated downstream development capabilities, give deCODE a competitive advantage for the creation of value for the company and our shareholders.



highlights of 2001

- Under its 1998 gene discovery alliance with Roche, during the course of 2001 deCODE announced the discovery of genes linked to schizophrenia, peripheral arterial occlusive disease (PAOD) and the common form of stroke, as well as the mapping of genes in Type 2 diabetes, anxiety and rheumatoid arthritis. In January 2002, deCODE and Roche formed a new drug discovery and development alliance to focus on targets in a selection of four diseases.

- The company launched a collaboration with Affymetrix to develop DNA-based tests to predict the responsiveness of individual patients to treatments for common diseases including high-cholesterol, depression, asthma, hypertension, breast cancer, schizophrenia and migraine.

- deCODE and Applied Biosystems Group formed a three-year alliance under which the companies are adapting deCODE's genotyping software suite for integration and marketing with ABG's market-leading bioanalytical instruments.

- deCODE and Roche Diagnostics — the largest diagnostics company in the world — established a broad new alliance in the field of DNA-based diagnostics.

  deCODE announced the mapping of the first genetic factor ever linked to late-onset Parkinson's disease, as part of the company's proprietary gene research in more than 40 common diseases.

  The company formed a broad-based alliance with Copenhagen-based Genmab and its parent company Medarex aimed at using deCODE's genetic discoveries to develop fully-human antibody therapeutics. An additional alliance was formed with Genmab to develop a DNA-based test to predict individual clinical response to Genmab's HuMax-CD4 antibody treatment for rheumatoid arthritis.

  Utilizing the company's proprietary datamining technology, deCODE scientists discovered more than 350 genes in key drug target classes. deCODE has applied for patents on these targets, which include relevant disease linkage data.

  In December 2001 construction work on the company's new headquarters was completed on schedule. The new facility near the University of Iceland campus in central Reykjavik has approximately 15,000m^2 of floor space and now houses deCODE's headquarters in Iceland.

president's letter

To our shareholders

In 2001, deCODE continued to deliver solid growth and results in all aspects of its business. We reinforced our position as a global leader in gene discovery, at the same time recording robust financial results and forging a range of partnerships across all areas of our business. On our own and with our corporate partners we are turning our findings in the genetics of common diseases into a broad pipeline of products to improve healthcare and build value for our shareholders.

Since its inception just six years ago, deCODE has established its leadership in human genetics by focusing on one core competence: applying population resources to discover the key genetic components of common diseases. By bringing together population data on genealogy, genome diversity, and disease with our proprietary data-mining products, deCODE is able to ask and answer the major questions in human genetics, identifying the key genes and pathways involved in disease and selecting those offering the most promising drug targets and most informative diagnostic markers. We are now conducting population and genome-wide discovery projects in more than 50 of the most common, complex diseases and have mapped genes in some two-dozen. By the end of 2001, we had initiated drug discovery work on targets identified in our most advanced programs. Unlike other approaches that focus on gene expression, association, or animal homologies, deCODE's work is yielding population-validated targets in human disease. In a world where it has proven difficult to prioritize drug targets, this gives us an advantage when it comes to developing drugs and diagnostics.

Upon this success we are building a durable and growing business. Our long-term strategy is to employ our scientific discoveries, unique resources and know-how to create innovative and valuable products for the market. As we advance our downstream programs, we are also aggressively pursuing corporate partnerships aimed at creating new products while providing the company with growing near-term revenue streams. Our success in implementing both the near and long-term aspects of our strategy is evident in the many significant partnerships we formed over the course of 2001 and in our solid financial results.

As we build upon these accomplishments in 2002, I would like to take the opportunity to review some of the highlights of last year and their importance to deCODE going forward.

Gene discovery and drug development

In 2001 we extended our unmatched record of gene discoveries in common diseases. We also put in place important components of our strategy to take these discoveries into drug discovery and the development of diagnostics.

During the course of last year we announced several important discovery milestones under our 1998 gene discovery agreement with Roche. In the first half of the year we announced the identification of key genes involved in schizophrenia, the common form of stroke, and peripheral arterial occlusive disease (PAOD). In each of these diseases we have now isolated drug targets, validated our findings in other populations, and are deeply involved in drug discovery work.

Also under the Roche alliance, we announced the mapping of genes in a series of complex conditions: type-2 or adult-onset diabetes, anxiety and rheumatoid arthritis. These results provided fresh evidence of the power of our population approach not only for homing in on key genes contributing to specific diseases, but also for redefining our understanding of what aspects of disease are most clearly inherited and how genes interact to cause disease.

Among the notable achievements in our research programs was our announcement last October of the mapping of the first gene ever linked to late-onset Parkinson's disease. Our study, the first population-wide genetic study ever undertaken in the common form of the disease, is the basis for an intensive ongoing research program. It was also important for countering the contention of many researchers and funding bodies that genetic research on Parkinson's should be curtailed, as previous gene research had yielded inconclusive results.

In July, deCODE formed a broad alliance with Copenhagen-based Genmab and its parent company Medarex. The goal of this alliance is to bring together deCODE's discoveries in common diseases with Genmab and Medarex's proprietary technology to generate new human antibody therapeutics for common diseases. Because of their low toxicity and excellent safety profile, human monoclonal antibodies can be brought into clinical development more quickly and cheaply than traditional small molecule drugs, presenting an important opportunity for getting the benefits of genomic medicine more quickly to patients.

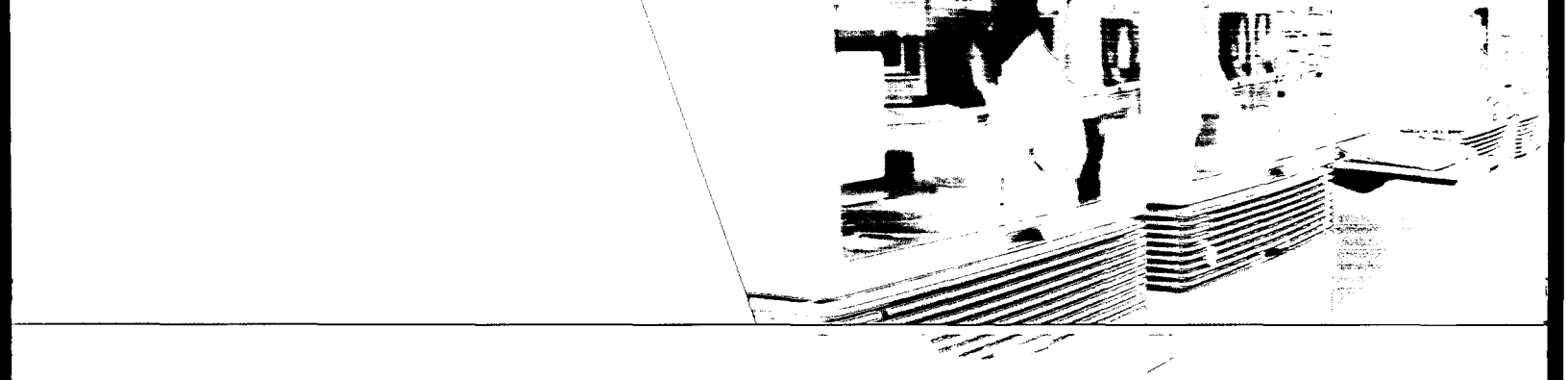
Diagnostics and personalized medicine

We believe that DNA-based diagnostics and pharmacogenomic tests will become an integral part of healthcare in the near future. Such tests promise to enable the accurate measurement of individual predisposition to disease, the development of novel disease prevention strategies, and the ability to prescribe to individual patients the drugs that will be safest and most effective for them. Moreover, these tests can be created using the same targets deCODE is using for drug development, but with a much shorter time to market. deCODE is well positioned to play a leading role in the development of this new component of healthcare and in 2001 the company formed several important alliances in this field.

In July, we signed a broad agreement with Roche Diagnostics, the largest diagnostics company in the world. The aim of the alliance is to use deCODE's genetic research and informatics products to bring to the market an integrated suite of products and services for assisting in the clinical diagnosis of common diseases, the prediction of disease predisposition, and the analysis of responsiveness to drugs. Over the five-year term of the alliance, Roche will provide deCODE with a major package of committed research funding, as well as potential milestone payments and royalties on successfully commercialized products.

deCODE's pharmacogenomics approach brings together the company's population linkage analysis and gene expression data to identify genetic markers that can accurately predict the responsiveness of individual patients to particular medicines.

In 2001, deCODE formed pharmacogenomics collaborations with Affymetrix and Genmab. With Affymetrix, deCODE is developing assays to predict responsiveness to treatments for several major diseases, including high-cholesterol, depression, asthma, hypertension, breast cancer, schizophrenia and migraine. deCODE, through its pharmacogenomics and clinical research subsidiary Encode, will share revenues from the sales of tests developed under the alliance. With Genmab, deCODE is working to develop a DNA-based test to identify genetic factors predictive of responsiveness to Genmab's HuMax-CD4 antibody, now in late-



stage clinical trials for the treatment of rheumatoid arthritis. Under this agreement, deCODE receives research funding as well as potential milestone payments and sales royalties on a successfully marketed test.

Informatics

The power of deCODE's population approach to gene discovery lies in the ability to generate and analyze detailed genotypic data from volunteer patients and relatives who belong to vast extended families from across the entire population. In order to be able to manage tens of thousands of DNA samples, capture the genotype data generated, and efficiently conduct the complex statistical analysis involved in population-wide linkage studies, deCODE has developed some of the most powerful datamining algorithms and software programs available today. These programs now represent an important avenue of commercial potential for the company.

Last year we formed an alliance with Applied Biosystems Group, the world's leading manufacturer of DNA analysis instruments. Under this collaboration, we are adapting deCODE's genotyping and laboratory management software for integration and marketing with ABG's hardware. The goal is to leverage ABG's leadership in bioanalytical instruments and deCODE's unique expertise in genotypic analysis to provide customers with a range of customizable solutions for the generation, management and analysis of genotypic data. Along with royalties on sales, this alliance is also beneficial to deCODE in that it will make the company's bioanalytical products available to virtually all of the leading genomic research organizations in the world, introducing deCODE's know-how to a large number of potential customers and partners.

Intellectual Property

Last year, our scientists used our proprietary datamining technology to discover more than 350 genes in major drug target classes. These include GPCRs, kinases, proteases, ion channels, nuclear receptors and transglutaminases. Using deCODE's Clinical Genome Miner™ discovery system, we were also able to place

these genes in the context of population linkage data in more than 40 common diseases. deCODE has applied for patents on these targets, which include relevant disease linkage data. These discoveries and filings substantially augmented the company's intellectual property portfolio and provide a set of validated targets for our expanding in-house drug discovery program and new drug discovery partnerships.

Finance

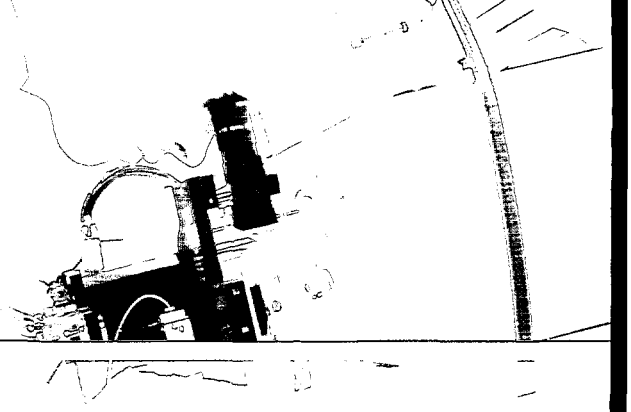
The series of new corporate partnerships and the achievement of gene discovery milestones contributed to the company's solid financial results for 2001. The company again achieved its revenue targets, with recognized revenue for the year rising to $31.6 million, up 46% on 2000. At the close of the year deCODE also had $13.1 million in deferred revenue which will be recognized over subsequent reporting periods. We exercised careful cash management, using only $27.1 in cash resources during the year and closing 2001 with $167.1 million. These resources put the company in a strong position for pursuing its downstream strategy well into the medium term.

Facilities

In December 2001, construction work on the company's new headquarters was completed on schedule. Our new facility adjacent the University of Iceland campus in central Reykjavik has approximately 15,000m^2 of floor space and now houses deCODE's principal research facilities and 600 Reykjavik-based staff.

Building on achievement

For deCODE, 2001 was clearly a year of growth and achievement. In 2002, we began immediately to build on this progress to continue to execute both the near and longer term objectives of our business strategy.



Early this year we took an important step in advancing our discoveries into proprietary drug discovery and development, a key route by which we hope to create and capture additional value from our capabilities and investment in R&D. In January, we announced deCODE's acquisition of MediChem Life Sciences in a stock-for-stock transaction that was completed in March. The acquisition of MediChem, which is based in Chicago and focused on using genomically-identified targets to synthesize novel compounds ready for clinical trials, provides deCODE with integrated capabilities ranging from structural proteomics to lead optimization, medicinal chemistry and scale-up. We have already begun to employ these assets for the discovery and development of compounds in our projects on schizophrenia, stroke and PAOD.

We immediately leveraged our new drug development capabilities with the extension of our alliance with Roche Pharmaceuticals from gene discovery into drug development. Under our 1998 alliance with Roche we mapped or identified genes involved in ten major diseases in just under four years — an unmatched record. Under the agreement signed this year, we are focusing on turning our discoveries in a selection of four of the twelve diseases in the earlier alliance into new therapeutics. This represents an exciting opportunity for deCODE and reflects our growth as a company. We will be pursuing drug discovery work on these targets ourselves, adding yet more value to our discoveries and as a result garnering a greater share of the upside from the drugs that result. deCODE will also retain the development rights to the eight diseases not carried forward from our 1998 alliance, providing us with advanced projects in major diseases that we can fold into our proprietary downstream programs.

In personalized medicine, we have formed an innovative alliance with Pharmacia. Under this alliance, we are using our population approach to pinpoint genetic markers that can identify individuals who are likely to progress from early to more advanced forms of heart disease.

We then aim to employ this information to identify broad groups of patients who may be able to benefit from heart medicines under development at Pharmacia. This alliance suggests a new way of employing pharmacogenomics — to optimize the potential benefits of new drugs before they reach the market.

As the year progresses, we expect to share with you news of further advances in scientific discovery and in our programs to develop and commercialize diagnostic, therapeutic and informatics products. This year we expect to sign up our first subscribers to the Clinical Genome Miner™, to achieve our first milestones under our diagnostics collaboration with Roche, to extend our range of partnerships in pharmacogenomics, and, in our alliance with Applied Biosystems, to launch our genotyping suite on the market.

In 2001 we made significant progress across all areas of our business and continued to achieve the ambitious goals we have set ourselves. This year has gotten off to a thunderous start and we will continue to focus on the achievement of our strategic objectives: building growing revenues through new alliances and research milestones, at the same time expanding our pipeline of products to create even greater value in the longer term.

On behalf of everyone at deCODE, I would like to thank you, our shareholders, for your role in making deCODE a global leader in the application of human genetics to create better healthcare.

Kári Stefánsson
President, Chairman and CEO
deCODE genetics

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTIONS 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Mark One

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001

or

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

For the transition period from to .

Commission File No. 000-30469

deCODE genetics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	04-3326704
(State or jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

Sturlugata 8, Reykjavík, Iceland
(Address of principal executive offices)

+ 354-570-1900
(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
None	None

Securities registered pursuant to section 12(g) of the Act:
Common Stock, $.001 par value
(Title of Class)

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

State the aggregate market value of the equity stock held by non-affiliates of the Registrant: $190,410,861 at March 22, 2002 based on the last sales price on that date.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock, as of March 22, 2002.

Class	Number of Shares
Common Stock, $.001 par value	45,298,115

Documents incorporated by reference

The Proxy Statement to be filed with respect to the 2002 Annual Meeting of Stockholders is incorporated by reference into Part III.

PART I

Item 1. *Business*

Overview

deCODE is a genomics and health informatics company which is developing products and services for the healthcare industry. We use our comprehensive population data and proprietary datamining tools to identify and analyze the genetic factors involved in common diseases. We use this information in the development of new drugs, DNA-based diagnostics and bioinformatics systems and tools. We also develop and apply modern informatics technology to discover new knowledge about health and disease through data-mining.

Our approach to the discovery of knowledge about the nature of health and disease brings together three key types of anonymized data on the Icelandic population: public-domain genealogical data, and genotypic and clinical data gathered from volunteer participants in our gene research programs.

Our research approach is based on four sets of information:

- genealogy records of almost all living Icelanders and most of their ancestors for whom records exist, dating back in some cases to the settlement of Iceland in the ninth century;
- genotype data from consenting Icelanders;
- clinical data from Icelandic patients and family members participating in our disease-gene research; and
- other public and proprietary data to which we have access.

Our three avenues of commercialization are as follows:

Discovery Services. We believe that the development and application of proprietary datasets and informatics in the context of an appropriate population will accelerate our ability to discover disease-related genes and associated drug targets. We have adopted this strategy to derive value both from development of diagnostic and therapeutic products and from pharmacogenomic services. We are currently working on discovery and product development in these areas on our own and in collaboration with a number of pharmaceutical and biotechnology companies. Our partners include: F.Hoffmann-La Roche, or Roche; Roche Diagnostics; Affymetrix; Genmab and Medarex; and Pharmacia. We expect to seek additional partners for this part of our business.

Database Services. We have also developed and are marketing the Clinical Genome Miner™, a computer based discovery system that allows users to perform real-time analysis to study the association between variation in human genes and human disease. The system is being offered under a multi-year license to research organizations to enable the discovery and validation of novel therapeutic and diagnostic targets, based on the pathology and genetics of human disease. The Clinical Genome Miner™ combines bioinformatics software and anonymized data on the medical condition, genotypes and genealogy of tens of thousands of Icelandic individuals who have participated in deCODE disease studies and contributed samples and information under informed consent.

We are developing the deCODE Combined Data Processing system, a tool which, subject to ongoing compliance with regulatory requirements, will cross-reference genealogical records, data from the Icelandic Health Sector Database and genotypes of consenting participants.

Informatics. The third area of focus, informatics, is derived from our discovery and database services. Our informatics business has two principal components: bioinformatics and healthcare informatics.

- *Bioinformatics.* Our population research into the genetic factors that contribute to common diseases involves, in the first stage, the gathering, management and genotyping of thousands of biological samples. In order to carry out this work efficiently we have developed proprietary software and systems specifically suited to these tasks. In order to analyze this large amount of genotypic data, we have also developed what we believe are some of the fastest and most powerful mathematical algorithms and software systems for carrying out linkage analysis. These products enable us to efficiently study the inheritance of genetic markers across large families, an approach which indicates specific regions of the

genome containing genes involved in the pathogenesis of specific diseases. We are now marketing these products in partnership with Applied Biosystems Group, by integrating them for use with Applied Biosystems' bioanalytical instruments and data-capture software.

- *Healthcare Informatics.* In the future, the integration of genetics and medicine will add a new level of complexity to the decision-making process in the delivery of healthcare. The need for medical decision support systems for healthcare providers is expected to increase over the next several years. We are developing medical decision-support systems, which will include insights from the Clinical Genome Miner™ and, when it is operational, the Icelandic Health Sector Database.

In this report, references to we or us refer to deCODE genetics, Inc. and our wholly-owned subsidiary, Islensk erfðagreining ehf., and its subsidiaries deCODE cancer ehf. and Encode ehf., each an Icelandic private limited company. After the closing of the acquisition of MediChem Life Sciences Inc. on March 18th 2002 we or us also refers to MediChem, a wholly owned subsidiary of deCODE genetics, Inc., and to Medichem's wholly owned subsidiaries.

deCode was incorporated in Delaware in 1996.

Scientific Background

In February 2001, Celera Genomics and the Human Genome Project presented the initial sequencing and analysis of the human genome. The next great challenge is to transform these raw sequence data into specific knowledge about disease and healthcare.

Genomics

The blueprint of all biological activity, which consists of deoxyribonucleic acid, or DNA, is located within the nucleus of every cell and is commonly referred to as the genome. The genome is the total DNA content of an organism. DNA is composed of four bases. The sequence or order of these bases is the code that ultimately determines structure and function in all organisms. The human genome is broken up into 23 pairs of chromosomes and every individual inherits a set of 23 chromosomes from each parent. Genes are segments of DNA located throughout the genome. The human genome consists of approximately three billion bases and has been estimated to contain 30,000 – 35,000 protein-coding genes. Each cell uses or "expresses" only those genes (approximately 30% of the 30,000 – 35,000 genes) necessary for its specific role. Accordingly, different types of cells express different sets of genes.

When a gene is turned on or expressed, it produces a derivative copy of its DNA sequence called messenger RNA, which is used as a template to direct the production of a protein. Proteins are large molecules composed of amino acids and control all biological processes. The order of the bases in DNA determines the order of amino acids in a protein. Proteins in turn make up molecular pathways, which cells use to carry out their specific functions. Diseases can occur when a mutated or a defective gene upsets or blocks a molecular pathway in a normal biological function. The ability to detect a mutation and to understand the process by which it contributes to disease is crucial to understanding the fundamental mechanisms of a disease. In the simplest form, genetic diseases result from a mutation in only one gene and the disease is usually passed from generation to generation. Common diseases are thought to have a complex genetic basis; they generally skip one or more generations and may result from interactions between genes or from the interaction between genetic and environmental factors.

The human genome sequence is now nearly completed and has been estimated to contain 30,000 – 35,000 protein-coding genes and more than two million markers to help map disease-causing genes. We believe that by itself, this knowledge is of limited value and that the importance of this discovery will only reach its full potential if this sequence data is explored along with detailed knowledge about health history, genetic profile and genealogy.

Population Genomics

Population genomics is a field of genomics which applies modern genetic and molecular biology techniques to an entire population to discover how genetic factors contribute to the cause of diseases. Since almost all common diseases have a genetic component, the discovery of the cause of disease can often be

reduced to finding the gene or genes mutated in patients who have the disease as compared to those who do not. Since this approach does not require a preconceived notion about which tissues or proteins or genes are important in the disease, it represents a systematic strategy for creating specific knowledge about disease. We believe that the challenge is to find a population which is small enough to allow the necessary cooperation but large enough to deliver meaningful results.

Functional Genomics

Functional genomics is a field of genomics that attempts to determine the manner in which disease genes specifically impact the disease process. It is the study of the function of genes, including how expression of a particular gene is regulated and the function of the protein that the gene encodes. Researchers employing functional genomics techniques may analyze large numbers of genes to compare patterns of gene expression in diseased and healthy tissues or may compare genes in humans to those in other species, in each case in an effort to determine the molecular pathways that cause disease.

Genomics and Healthcare Products

Genomics and Diagnostics. Gene-based diagnostic tests for both disease diagnoses and management represent an important tool that physicians can use to identify and monitor patients with increased risk of a disease. These tests can complement clinical tests and may lead to more cost-effective use of expensive tests and to a greater level of accuracy. Knowledge of predisposition towards a disease may allow patients to alter their lifestyles or to take medication that prevents the disease.

Genomics and Therapeutics. The lack of precise knowledge about the causes of diseases makes it difficult for the pharmaceutical industry to select targets for new drugs. Identifying specific disease genes may result in very specific and, therefore, potentially more valuable drug targets than are otherwise available. The disease gene products themselves may be attractive drug targets. In addition, they mark a key molecular pathway that is composed of several other potential drug targets.

Genomics and Drug Response. The efficacy and safety of existing and new drugs may be enhanced by pharmacogenomics. Pharmacogenomics is the application of genomics technology to the analysis and identification of genes involved in drug response. It is believed that genomics will permit the identification of the genetic differences that cause people to respond differently to the same drugs. This may lead to tailor-made treatments for individuals, maximizing efficacy and minimizing side effects.

deCODE's Unique Approach

Population Genomics and the Value of the Icelandic Population

We believe that our unique approach, coupled with the application of extensive bioinformatics to population genomics, has a number of distinct advantages because of the following characteristics of the Icelandic nation:

Extensive Genealogy. Genealogy is a national pastime in Iceland. According to Icelandic history books and old manuscripts from as early as the thirteenth century, Iceland was settled in the ninth and tenth centuries. Since very early stages of their history, Icelanders wrote detailed accounts of Icelandic facts and events, including genealogy. The library of the University of Iceland and other institutions contain manuscripts on genealogy dating from the middle ages, which form a bridge between the time of settlement and official records kept in the Icelandic National Archives from the time when church and government officials began systematic registration of the population in the seventeenth century. Numerous sources of genealogical information, including parish records, census data and written manuscripts, such as the Icelandic sagas, are readily available. Genealogical data can facilitate the identification of genes that cause a specific disease by enabling researchers to compare the genes of family members with and without the disease over the generations. The genealogical data can go back as far as 35 generations and we believe it provides sufficient genealogical information for our purposes. In addition, the fact that there has been little immigration means that most Icelanders living today are descendants of the original "founding" settlers and can, therefore, trace their ancestry to the early middle ages.

Relative Genetic Homogeneity. Diseases which are prevalent in developed countries, such as cancer and heart disease, have a large number of genetic causes. In an isolated population that is genetically simpler, the number of genetic causes is likely to be fewer than in more genetically diverse populations. Thus, studying a more homogeneous population, like the Icelanders, simplifies the problem of finding and subsequently understanding disease genes and mutations causing common diseases. The Icelandic population was founded by Norwegian and British settlers who arrived in Iceland in the ninth and tenth centuries. Because Iceland has experienced little immigration over the last eleven centuries, most of the 280,000 living Icelanders are descended from these original "founding" settlers. Our ability to trace the Icelandic population back approximately 1,100 years also facilitates gene discovery. Specific genes are associated with the appearance and existence of specific diseases. For example, the BRCA2 gene is known to carry mutations in some individuals that can cause breast cancer. Because many present-day Icelanders may share a gene carrying a mutation that causes a particular disease with one of the founding settlers, they may also have such "disease gene" in common with other Icelanders. We can make use of this "founder" effect to facilitate the identification of disease genes. It has been demonstrated that the disease genes found in Iceland are, in general, also found in other populations. Even if the disease genes in Iceland are different from those found in other populations, the identification of any disease gene can lead to discovery of a key molecular pathway likely to be involved in the disease and, consequently, to the discovery of disease genes in other populations which cause anomalies in the particular pathway. Therefore, we believe the discovery of a disease gene in Iceland may enhance the identification of drug targets for any population.

Centralized Healthcare System. Iceland has had a centralized national healthcare system since 1915. It presently consists of a base of 55 primary care centers, a large University hospital in Reykjavik which has recently been formed on the basis of a merger of the country's two largest hospitals, one central hospital in Akureyri, and several smaller ones. Outside the primary care centers, the healthcare system is highly specialized. Specialty clinics care for most of the patients with major illnesses. Our clinical collaborators work at these specialty clinics, as well as in the major hospitals. This centralization of the healthcare system means that the data is centralized and easily accessible for scientific research.

Well-educated Population. The level of public education is high in Iceland and illiteracy is negligible. Historically, the Icelandic population has been cooperative when approached by physicians and scientists working on biomedical research in the Icelandic community.

We believe that the Icelandic population meets the criteria of being small enough to allow necessary cooperation but large enough to deliver meaningful results. While the Icelandic population is characterized by relative genetic homogeneity, it is large enough to prevent an increased incidence of recessive genetic conditions which can arise as a result of intermarriage. At the same time, the population is small enough, and the amount of immigration is limited enough, that the total genome of Icelanders is less variable than the genomes of larger, less historically isolated nations.

Comparison to Other Approaches

Some companies are using an approach to locate disease genes that relies on correlating DNA variations such as single nucleotide polymorphisms, known as SNPs, throughout the genome or in candidate genes to patients. We believe that this approach is analogous to searching for a single needle that is present in one of a hundred haystacks. We believe that our population genomics approach will allow us to find the haystack using our large families before we begin searching for the needle using SNPs and other variations to narrow down or fine-map genes.

Other companies are using functional genomics to help select potential drug targets. Most of these approaches depend on expression analysis using DNA chips that compare the genes turned on or off in diseased tissue with those in normal tissue. We, on the other hand, apply functional genomics more selectively, focusing on the disease genes identified through our population genomics approach to more specifically define their molecular pathways.

There may be some limitations to our population genomics approach because disease genes found in Iceland may not always be directly relevant in other populations, although there is much overlap in disease genes that have been found in Iceland over the last 15 years and the rest of the world. The Icelandic

population is probably too small to study diseases that are not common. However, our aim is to continue to focus on the diseases in Iceland that have the greatest public health prevalence worldwide.

Discovery Services

The extensive genealogy database and associated bioinformatics that we have built in Iceland are the core of our novel genealogical approach to identifying human disease genes and associated drug targets.

We believe that working with the Icelandic population puts us in a position to accelerate the discovery and development of new proprietary diagnostic and therapeutic products capable of addressing diseases at their root causes, rather than simply identifying and treating their symptoms. These programs may permit doctors to make earlier diagnoses, use healthcare resources more cost-effectively and select safer and more effective drugs for patients on the basis of their genetic make-up.

The genealogical approach that we have developed depends on a genealogical database and bioinformatics tools that we have built. In the study of any particular disease, we first define the disease classification broadly but rigorously. (For example, we first labeled stroke patients as "stroke" rather than as a series of less common subtypes of stroke). After our clinical collaborators compile a list of all patients who have been diagnosed with the disease, the list is encrypted and run through our genealogy database which yields very large extended families of patients, sometimes containing hundreds of individuals. The genealogy naturally links together those patients who are likely to share a gene or genes for the disease. The patients are genotyped to determine which genes or pieces of chromosomes they have in common. The genealogical approach compensates for the inadequacies of "consensus criteria" for disease classification, which utilizes specific symptoms accepted by a consensus committee of physicians to determine who is "affected" by the disease, and increases the chance that the form of the disease studied is the one actually inherited. We believe that no other organization uses genealogy in this manner. Our unique approach to human genetics has allowed us to map genes in diseases in which many others have previously failed. By using this approach, we expect to be able to assign function to the raw data contained in the human genome sequence.

The following describes our approach to gene discovery.

Genetic Mapping

We have developed an extensive computerized genealogy database that currently includes approximately 620,000 individuals or almost all the approximately 280,000 living Icelanders along with most of their ancestors for whom records exist. This represents most of the Icelanders who are known through records ever to have lived to adulthood in Iceland. Research that our scientists conducted on 26 extended families containing hundreds of individuals, which the American Journal of Human Genetics published in its May 2000 issue, showed that the accuracy of maternal connections in the database is 99.3%.

Before we start a study looking for genes that cause or contribute to a particular disease, we obtain approvals from both the Icelandic Bioethics Committee and the Data Protection Authority. All patients who participate in our research program by giving a blood sample sign an informed consent form approved by the Bioethics Committee. We have developed a sophisticated encryption system to protect the personal privacy of all participating volunteers.

In our present disease-based research projects the first step of our genealogical approach is for our clinical collaborators to compile a list of patients who have been diagnosed with a particular disease in Iceland. After the patient list has been encrypted, it is sent to us and run through an encrypted version of our genealogy database. The genealogy database and associated data-mining tools that we have developed enable us to determine the relationships among all members of a large patient list and demonstrate information flow through the generations.

Using DNA from participating patients and their relatives, who grant us informed consent, we are able to generate high-resolution genotypes with our genotyping facility using 1,000 microsatellite markers. A microsatellite marker is a segment of DNA containing variable short repeats that can be used to derive a genotype. Our high-throughput genotyping facility and bioinformatics systems substantially decrease the amount of labor involved in reading the genotypes.

We have developed a statistical informatics program that is used to determine which portion of the genome is shared among most or all of the patients within a family. This technique can systematically screen every segment of the human genome for shared genotypes and can narrow the location of a disease gene or genes to a small fraction (1/1000) of the human genome. That segment marks the location of the disease gene that is mutated in the patients with the disease. We use stringent criteria to determine that we have successfully found a disease gene location before moving onto the next step of gene discovery.

Physical Mapping, Fine-Mapping, and Sequencing

Once we have narrowed the chromosomal region containing the disease gene to two to three million base pairs, we develop a higher resolution map. To accomplish this, we construct a physical map using large overlapping pieces of human DNA. We have developed an automated high-throughput physical mapping method which is based on sophisticated proprietary software we have developed and uses robotics. By integrating a robust hybridization system (*i.e.*, matching of a small piece of DNA to large segments of DNA), automated analysis of the hybridization data and data-mining techniques, we construct a high-resolution map of the human genome.

We use low-resolution and high-resolution physical maps to find new microsatellite markers and genetic variations known as single nucleotide polymorphisms, or SNPs which allows us to create more precise sets of genotypes of the patients. SNP markers differ from microsatellite markers in several ways. SNPs represent a single base change in the genomic sequence and microsatellite markers represent short repeats of sequence. Microsatellite markers contain more information than SNPs (one microsatellite marker typically contains three to five times more information than a SNP) and, therefore, are well-suited for our genetic studies using large families. Currently, the cost of genotyping microsatellite markers is much less than genotyping SNPs (especially given the relative information content). However, the SNPs are more numerous than microsatellite markers and therefore more useful for fine-mapping and association studies.

Many patients may share several closely spaced genotypes which serve to narrow the region containing a disease gene. We believe that the relative genetic homogeneity and the age of the Icelandic population will enable us to reduce the size of the chromosomal region containing the disease gene to as few as 250,000 base pairs. We believe that this segment would generally contain fewer than ten candidate genes, thus reducing the amount of time required to screen the genes for mutations.

Once we have narrowed a region, we sequence this narrow region using automated DNA sequencers and then use our bioinformatics tools to identify new genes. The genes are screened in turn for mutations that occur in patients with the disease and rarely in those without. Typically, only one gene in this segment will be the disease gene, but we may find disease genes on other chromosomes that can be discovered in the same manner. We believe that our ability to go from gene mapping to disease gene identification will be further enhanced as the sequencing of the human genome is completed.

Functional Genomics

After we have succeeded in identifying a disease gene using our population genomics approach, we seek to define molecular pathways in which the disease gene plays a role. This is essential information both for understanding the biology of the disease and also for identifying additional specific drug targets that interact with the disease genes.

We have established three complementary systems designed to isolate specific drug targets from "upstream," "downstream" and "proximal" pathways that may be involved in the disease process. We believe these three functional approaches will expand the number of potential drug targets that are associated with the specific disease genes identified using our population genomics approach.

Our proximal analysis identifies proteins that physically interact with the disease gene product. As very few proteins work alone in the body, these partner proteins are likely to be involved in the normal biology of the disease gene. We carry out the screening in yeast cells, using methods which involve increasing stringency in order to eliminate false positive protein-protein interactions. We are also able to crossmatch the genes identified as partners of the first disease gene with additional population genomics data since they might be mutated in the same disease.

Potential drug targets from upstream pathways include proteins that control the expression level of the disease gene (*i.e.*, those gene products that are responsible for turning the disease gene on or off in particular tissues or under particular conditions). We plan to link the control region of newly identified disease genes to a "reporter" gene and establish precisely which region governs expression. DNA from this region will be used to retrieve specific binding proteins that are responsible for turning the disease on. Finally, we plan to perform gene expression analysis using Affymetrix GeneChip technology to validate our conclusions and to identify other genes which are regulated in tandem with the disease gene.

Our downstream analysis is designed to uncover genes that are influenced by the overexpression, underexpression or misexpression of the disease gene. We have established efficient systems to turn a gene on or off in cells, as well as to express mutated versions revealed in the course of gene discovery. We employ DNA chip technology in our efforts to find genes whose expression patterns are altered by different scenarios of disease gene expression. Some of these genes may play a role together with the disease gene product in disrupting the normal biology and leading to disease.

Database Services

At present, our focus in database services is on the commercialization and continued development of the deCODE Clinical Genome Miner™ and on the development and launch of the Icelandic Health Sector Database and the deCODE Combined Data Processing system.

Description of the deCODE Clinical Genome Miner™

The deCODE Clinical Genome Miner™ (CGM) is the first bioinformatics system in the world that enables the cross-referencing of genetic, phenotypic and genealogical data on a large scale and in real time.

The CGM contains uniquely comprehensive and integrated proprietary data for the analysis of the interplay between genetics and environmental factors involved in the development of common diseases. These include our anonymized genealogical data, as well as genoyptic and clinical medical data on over 50,000 volunteer participants in more than 30 of our disease research programs. The datamining tools and two principal components of the CGM — the Disease Miner™ and Genome Miner™ — enable users to find correlations between genetic variation and disease, based on queries starting from either endpoint. Users can define a phenotype, conduct a genome-wide, population linkage scan and drill down to find the known genes in any chromosomal region of interest. They can also identify a gene, place it within the most detailed genetic and physical maps of the genome available — developed by deCODE — and view the population linkage correlations between the chromosomal location of the gene and more than 30 diseases.

The CGM thereby enables subscribers to answer in a matter of minutes questions that would likely take years to answer through experimentation, and to ask the questions in a relatively hypothesis-free manner. We believe that the CGM will be valuable to subscribers as a discovery platform, as a means of verifying results, and, perhaps most importantly, as an efficient means for pharmaceutical and biotechnology companies to characterize and prioritize large numbers of drug and diagnostic targets whose links to disease may not be well understood. We believe that this represents one of the most daunting challenges in employing genomics to create new diagnostic tools and therapeutics to improve healthcare.

CGM users' interactions with the system are confined to the query layer; users will not have direct access to the data itself, which remains proprietary to deCODE. We are marketing the CGM on the basis of non-exclusive, multi-year subscriptions.

Description of the deCODE Combined Data Processing system

We are developing the deCODE Combined Data Processing system, a tool which, subject to ongoing compliance with regulatory requirements, will cross-reference genealogical records, data from the Icelandic Health Sector Database and genotypes of consenting participants. The healthcare data contained in the Icelandic Health Sector Database will include, in addition to disease diagnosis details of laboratory results, treatments and outcomes.

Under the terms of the Icelandic Health Sector Database license we will be able to process medical information, environmental exposure information and resource use information from the Icelandic healthcare

system. A computerized network of medical records will be organized in each participating healthcare institution. Information processed in the Icelandic Health Sector Database will take place in a manner designed to ensure that personal data remains non-personally identifiable. The type of healthcare data may include admission data, diagnostic work-up and results, diagnoses, treatment and operations for each patient visit, medical and social history, allergies, risk factor exposure, pharmaceutical treatment and outcomes.

Informatics

Bioinformatics

We believe that our population approach to genetics — through which we use population- and genome-wide genotypic analysis to identify key genetic components in common, complex diseases — has proven to be an efficient and effective means of identifying drug targets and diagnostic markers rooted in the biology of disease. With over 50 diseases now under research and one of the largest high-throughput genotyping laboratories in the world, we believe that deCODE is a world leader in the generation and analysis of genotypic data. We have in the course of our research developed mathematical algorithms and software systems for managing tens of thousands of samples and identifying locations and levels of genetic sharing in large groups of patients because we conduct linkage analysis on such a large scale.

Healthcare informatics

We believe that the rapidly increasing volume of clinical information and medical research data available to physicians and healthcare providers, combined with the data processing capabilities of modern computer and software systems, have created a need for effective healthcare informatics tools and the means to meet this need. Key areas of healthcare informatics include personalized medicine, privacy protection and disease management. We believe that our experience in using advanced privacy protection systems and our broad range of data, including anonymized population-based data on genetics and disease, will enable us to develop innovative products in these fields.

Our Strategy

Our strategy is to use its population-based approach to transform genomic and healthcare data into products and services for the healthcare sector. The key elements of our strategy are as follows:

Gene and Drug Target Discovery. We are pursuing gene and drug target discovery and the characterization of genes that contribute to the causes of common diseases. In addition, we are using studies of gene expression and protein-protein interaction systems to define molecular pathways, which may contain drug targets. We are focusing on diseases that have the potential to result in the discovery of new proteins and drug candidates. We intend to pursue the development of these targets to create new therapeutics, both in-house and in alliance with corporate partners. In addition knowledge about genes and polymorphisms that contribute to the cause of disease can be used to develop novel diagnostic markers and tests. Our acquisition in early 2002 of MediChem Life Sciences, Inc., a U.S.-based drug discovery and development company, provides us with medicinal chemistry and structural biology expertise to pursue the downstream development of drug targets on a proprietary basis.

Pharmacogenomics Partnerships. In collaboration with pharmaceutical and biotechnology companies, we are working to apply pharmacogenomics to understand differences in drug response among individuals. Our approach enables the identification of the genetic differences that cause people to respond differently to the same drugs. As a result, we believe that it will be possible to individualize the selection of drugs for patients. We believe that our population approach and resources give us an advantage in identifying key genes involved in responsiveness to drugs, and we are combining this approach with large-scale gene expression studies to design accurate DNA-based tests to indicate whether individual patients are likely to respond to a given drug. Furthermore, we believe that the integration of medical treatment and outcome information with genetic information will give us and our partners an advantage in the generation and analysis of pharmacogenomics information, as well as in the commercialization of pharmacogenomic tests.

Database Subscriptions. We have built the deCODE Clinical Genome Miner database and discovery system, and will continue to extend and enhance this system through the development of the Icelandic Health

Sector Database and the deCODE Combined Data Processing system. Services we plan to offer to future subscribers of our database and discovery systems will include principally gene discovery and drug target prioritization, pharmacogenomics, disease management and health management. We expect subscribers to include pharmaceutical companies, healthcare organizations, national health services and government agencies that will pay subscription fees and, in some cases, development milestones and a share of product revenues they generate as a result of using the database.

Informatics Products and Services. We are pursuing market opportunities for software tools that we have developed in the course of our gene discovery efforts, in the development of the Clinical Genome Miner™. We also intend to pursue market opportunities for products we develop in healthcare informatics.

Products and Services

Our current services and those under development can be classified into three categories, all of which are based on analyzing data from the Icelandic population using our proprietary bioinformatics tools: discovery services; database services; and informatics.

Discovery Services

Current Discovery Programs

We are conducting gene discovery programs associated with over 50 common diseases. The inheritance patterns of many common diseases are complex, indicating that the diseases are probably caused by mutations in multiple genes and/or through interactions between genes and environment. We believe that these diseases represent large market opportunities for therapeutic and diagnostic products because:

- their causes are not fully understood;
- current treatments are of limited effectiveness;
- there are currently no approaches to tailor treatment to cause; and
- large numbers of individuals are affected by these diseases.

We expect the identification of disease genes to provide insights into the causes of common diseases and to help the development of highly specific diagnostic and therapeutic products, including small molecule products, recombinant proteins, gene therapy and antisense therapy. A brief description of several of our discovery programs and achievements follows.

Autoimmune Diseases. We are currently studying several autoimmune diseases such as atopy, inflammatory bowel disease (Crohn's and ulcerative colitis), insulin-dependent diabetes, psoriasis, rheumatoid arthritis and ankylosing spondilytis. These, like all our disease-gene research programs, are being researched using genome-wide linkage scans of patients and their relatives from across the population. We have located genes in atopy, psoriasis and rheumatoid arthritis.

- *Psoriasis.* Psoriasis is a chronic inflammatory disease that leads to disfiguring skin lesions and arthritis. We have completed a genome-wide linkage scan of Icelandic familial material and have confirmed linkage and association to a region of the genome that regulates immune response known as the MHC. Our genome-wide scan also identified a novel region of the genome that interacts with the MHC to cause psoriasis. Our second location represents the second gene mapped outside the MHC that fulfills the criteria for genome-wide significance. We are in the process of fine-mapping both gene locations.
- *Rheumatoid arthritis.* We have mapped the first gene with genome-wide significant linkage to rheumatoid arthritis outside the MHC region, and are currently fine-mapping this locus.

Cardiopulmonary Diseases. We are studying a variety of common diseases such as asthma, chronic obstructive pulmonary disease (COPD), hypertension, myocardial infarction, peripheral arterial occlusive disease (PAOD), cerebrovascular disease (stroke) and obstructive sleep apnea syndrome. We have identified novel genes in PAOD and the common form of stroke, and located genes in asthma, COPD, Hypertension and myocardial infarction.

- *Peripheral arterial occlusive disease (PAOD).* PAOD is a vascular disorder characterized by narrowing of the arteries of the arms and legs, and obstruction of the blood flow. PAOD strikes between 2% and 5% of people over the age of 65 worldwide and results in pain, diminished mobility, the need for invasive surgery, and, in extreme cases, gangrene and loss of the affected limbs. By conducting a genome-wide analysis of 1300 Icelandic PAOD patients and family members, deCODE researchers were able to identify a small section of a single chromosome that shows significant genetic linkage to the disease. The patients who participated in the study were carefully selected by collaborating surgeons from the Icelandic Society of Vascular Surgery working at Iceland's National University Hospital. All had undergone previous angiography that documented the nature and extent of vascular lesions, and most had undergone surgery to bypass blocked arteries. The study marks an important advance in identifying the genetic mechanisms contributing to PAOD. This study may expand slightly to emphasize that we have validated a drug target which was linked to the disease. We have validated a drug target identified through analysis of the gene which we have linked to PAOD, and are now conducting ongoing drug discovery work on this target.
- *Cerebrovascular disease (stroke).* Stroke represents diseases that directly or indirectly affect the blood vessels in the brain and cause central nervous system damage from either blockage of cerebral blood flow or rupture of an intracranial artery. It is the third leading cause of death. We have a research alliance with local physicians who care for a majority of the stroke patients diagnosed in Iceland. We have collected almost 2,000 DNA samples from informative families and genotyped most of them. Using our genealogical approach, we have identified the first gene ever linked to the common form of stroke and used this information to identify a drug target. We are conducting drug discovery work using this target.

Central nervous system diseases. We are studying the genetic basis for several psychiatric and central nervous system diseases, including Alzheimer's disease, anxiety, bipolar disease/depression, familial essential tremor, multiple sclerosis, narcolepsy, Parkinson's disease, schizophrenia, autism, attention deficit and hyperactivity disorder, and migraine.

- *Alzheimer's disease.* Alzheimer's disease is the most common cause of dementia. We have carried out a genome-wide scan involving 1,200 Icelanders and mapped a gene that contributes to the occurrence of late-onset Alzheimer's disease. We are fine-mapping this locus to identify the gene in question.
- *Schizophrenia.* Schizophrenia is a debilitating psychiatric disorder. We have carried out a genome-wide scan with the participation of 400 Icelandic schizophrenia patients and we have identified a gene linked to schizophrenia. Through functional and proteomics studies we identified a protein coded for by this gene and another protein with which it interacts in the central nervous system. We are using the latter protein as a drug target. We have developed knock-out mice to gain additional information on this target, and have conducted high-throughput screening to identify potentially effective compounds for use against this target.
- *Parkinson's disease.* We have mapped a gene contributing to late-onset Parkinson's disease, the first genetic factor ever mapped for the most common form of the disease. The gene was mapped to a small region of chromosome 1, through analysis of genotypic data from volunteer late-onset Parkinson's patients and their unaffected relatives from 51 families from across Iceland.
- *Familial essential tremor (FET).* A genome-wide scan for FET genes was performed at deCODE, in a study of 16 Icelandic families with 75 affected individuals in whom FET was apparently inherited as a dominant trait. The scan revealed one locus of genome-wide significance. This locus is currently being fine-mapped.
- *Anxiety disorder and depression.* The most common form of mental illness in industrialized countries, anxiety disorder and depression encompasses a constellation of conditions, including panic disorder, phobic disorders, obsessive-compulsive disorder, general anxiety disorder and depression. We approached anxiety as a broadly defined disorder that encompasses all of these complexities. Following a survey of more than 10,000 randomly-selected individuals conducted by collaborating physicians, some 500 respondents who had reported symptoms of anxiety agreed to be clinically examined and

genotyped. By focusing on extended families with at least one individual suffering from panic disorder, we mapped a gene strongly linked to all forms of clinical anxiety. We are now expanding this program by surveying 20,000 randomly-selected individuals for depression and have already identified 230 who have been further evaluated and are being genotyped along with their closest family members.

Eye Disease. We are studying a range of eye diseases, including macular degeneration, cataracts, glaucoma, myopia and retinitis pigmentosa. We have mapped a gene linked to macular degeneration.

Women's Health. We are studying the genetic causes of women's health problems including endometriosis and pre-eclampsia. We have located a susceptibility gene for pre-eclampsia on chromosome 2p13. In February 2002, we and a team from the National University Hospital in Reykjavik published a study utilizing our genealogical database to demonstrate the contribution of genetic factors in the development of endometriosis *(Human Reproduction, 17:3, pp555-559)*. We are using this data as the basis for a study to identify key genes involved in the disease.

Cancer. We conducting research in many forms of cancer, including lung cancer, melanoma, renal cancer, colon cancer, testicular cancer, thyroid cancer, prostate cancer and also for benign prostatic hypertrophy.

Metabolic and Other Diseases and Conditions. We are studying the genetic basis for osteoarthritis, osteoporosis, non-insulin-dependent diabetes (NIDDM), obesity, familial combined hyperlipidemia, nocturnal enuresis, and longevity. We have mapped genes for the first four conditions and for longevity.

- *Osteoarthritis.* We have mapped three genes linked to osteoarthritis. We are currently fine-mapping and sequencing these regions to search for the disease genes themselves.
- *Osteoporosis.* Osteoporosis is a disorder of the bones characterized by the progressive thinning and weakening of bone tissue. It generally strikes people over the age of 50, and is four times more common in women than in men, making it one of the most challenging medical problems in women's health worldwide. We have mapped an osteoporosis gene to a small chromosomal region as a result of a genome-wide scan conducted with the participation of 139 Icelandic families, including more than 430 patients and 600 unaffected relatives. The discovery marks a major advance toward identifying one of the genes that, if present in a variant form, contribute to this important disease.
- *Non-insulin dependent diabetes.* We located a gene linked to NIDDM to a small chromosomal region by utilizing the genotypes of 2700 volunteer patients and relatives grouped into 200 families from across Iceland.
- *Obesity.* We located a gene whose variant forms contribute to obesity by analyzing genotypic data from more than 11,000 adult volunteers in Iceland — representing a significant proportion of the population suffering from severe obesity. Using the Clinical Genome Miner™, we were able to correlate a wide range of clinical, behavioral, and genotypic data, and gained important new insights into the heritability of different aspects of obesity, as well as into the complex interplay between obesity and diabetes, stroke, heart disease, and hyperlipidemia. In this way we have also located a gene variant that appears to protect obese individuals from type-2 diabetes, an otherwise common complication.
- *Longevity.* Using our genealogical database and datamining algorithms, we have found that individuals above the 95th percentile in longevity in Iceland are significantly more related than members of the population at large. Through the analysis of genotype data from volunteer members of families with significant numbers of individuals living beyond the 95th percentile, we have located a gene that appears to correlate with extreme longevity. We are fine-mapping this locus.

Collaborations

Our strategy for pursuing business opportunities is to attempt to turn our discoveries and resources into to a broad range of products for the market. In some instances we intend to pursue this research and product development on our own, and in others through alliances with pharmaceutical companies, biotechnology firms and other healthcare institutions. Depending on the nature of each prospective business opportunity, we may conduct the research in return for one or more of the following: up-front equity investments; direct payments for research funding; payments upon the achievement of scientific milestones; shared or exclusive rights to

diagnostics and therapeutics; and royalties on products that our collaborators market. In some instances, we may negotiate for access to our collaborators technologies, for example libraries of chemical compounds, to enhance our operations.

F.Hoffmann-La Roche. In February 1998, we entered into a research collaboration and cross-license agreement with Roche to collaborate on the discovery of genetic variations which affect the cause of diseases for the purpose of developing new methods to diagnose diseases and obtain drug targets useful in drug discovery. The term of this agreement expired on February 1, 2002.

In connection with the agreement, Roche Finance Ltd., or Roche Finance, an affiliate of Roche, purchased shares of our preferred stock and received an option to purchase additional shares at any time prior to the end of February 2001. Roche Finance also purchased warrants to buy shares of our preferred stock and received the right to purchase additional warrants if it exercised its option to acquire additional shares of preferred stock. These became warrants to purchase an equivalent amount of common stock upon the completion of our initial public offering. In April 2000, Roche Finance transferred these shares, warrants and options to an affiliate, SAPAC Corporation Ltd., or SAPAC. In June 2000, SAPAC exercised its option and purchased 555,556 shares of our preferred stock, which subsequently converted into an equivalent number of shares of common stock and a warrant to purchase 55,556 shares of our preferred stock, which currently allows for the purchase of the same number of shares of common stock.

F.Hoffmann-La Roche. In January 2002, we formed with a new, three-year alliance with Roche focused on turning the achievements of our 1998 gene discovery collaboration into novel treatments for common diseases. Under our 1998 agreement, we used our population data to identify key genetic factors contributing to ten major diseases: osteoarthritis, Alzheimer's disease, schizophrenia, peripheral arterial occlusive disease (PAOD), stroke, osteoporosis, obesity, anxiety, type 2 diabetes and rheumatoid arthritis. The new alliance extends our partnership with Roche to leverage our expanding capabilities in drug discovery and development. Under this new alliance, Roche will provide us with research funding to increasingly focus over the next two years on downstream research in a selection of four of the diseases covered by the earlier agreement. The goal of the new alliance is to use the targets identified under the 1998 alliance to discover and develop new therapeutic compounds and to take these compounds into clinical trials. We will receive milestone payments for the development of compounds as well as royalties on the sales of drugs developed under the alliance. We retain therapeutic development rights to those targets identified under the 1998 alliance and not carried over into the new alliance. Pursuant to an agreement, we license our GeneMiner bioinformatic software product to Roche.

Genmab and Medarex. In June 2001, we entered into two agreements with Genmab A/S. Under the first, we are conducting research aimed at developing a DNA-based test to predict individual clinical response to Genmab's antibody treatment for rheumatoid arthritis (RA). We and our subsidiary Encode are conducting studies using Icelandic patients and patients from broader populations to identify key genetic factors predictive of clinical response to treatments for moderate to severe RA. These studies will also specifically focus on genetic factors predictive of responsiveness to HuMax-CD4, a fully human monoclonal antibody developed by Genmab and now in Phase III clinical trials. With the results of this research, we plan to develop an RNA- or DNA-based test that can be employed by doctors to determine the best treatment regimes for individual RA patients. Exclusive of potential sales royalties, Genmab is providing deCODE with research funding and potential milestone payments for a successfully marketed product.

We have also entered a broad-based collaboration with Genmab to develop new antibody therapeutic products. The partnership aims to utilize novel targets discovered in our research on the genetics of common diseases along with Genmab's fully human antibody technology to create and develop new products. This is a multi-target alliance covering a range of disease areas including cardiovascular and inflammatory diseases as well as cancer. We and Genmab will collaborate on the research, development, and commercialization of the new antibody products, and will share equally development costs and revenues generated from outlicensing or sales of these products. Given the scope of this multi-target alliance, Medarex, Inc., a leading antibody company based in the United States, will also contribute resources to the collaboration and will share certain costs and commercial rights. Medarex originally developed the UltiMAb™ platform, which Genmab has

licensed, and also has an agreement in which it may participate with Genmab in multi-target European genomics relationships, such as this one.

Roche Diagnostics. In June 2001, we signed with Roche a five-year alliance to develop and market DNA-based diagnostics for major diseases. The alliance represents an important element in our strategy of turning our research platform and achievements into products on the market. The alliance aims to bring together what we believe are important deCODE and Roche assets: our comprehensive population genomics resources and bioinformatics expertise, and Roche's prominence in the development and marketing of molecular diagnostics. In addition to the development of novel DNA-based diagnostic and predisposition screening products, we will be working under this alliance to use our Clinical Genome Miner™ system to develop point-of-care informatics products that can assist doctors in evaluating the results of DNA-based diagnostic tests. We believe that our population data and informatics tools contained in the CGM give us an advantage in the development of such products, and that such products will be important in establishing the use of DNA-based diagnostic and pharmacogenomic tests as a useful part of everyday healthcare.

Affymetrix. In July 2001, we formed a pharmacogenomics alliance with Affymetrix, Inc., under which we are developing DNA-based tests to predict the responsiveness of individual patients to treatments for common diseases. We are bringing together our population-based approach to pharmacogenomics and Affymetrix' GeneChip® technology, focusing initially on conducting gene expression analysis to understand the response to drugs used in the treatment of several common diseases. These include high-cholesterol, depression, asthma, hypertension, breast cancer, schizophrenia and migraine. Clinical work under this collaboration is being performed by Encode, our wholly-owned subsidiary. Through Encode, we will share the revenues from the sale of tests developed under the collaboration.

Pharmacia. In December 2001, we formed a pharmacogenomics alliance with Pharmacia Corporation to identify the role of genetics in the development of advanced forms of heart disease. Under the agreement, we will employ our population resources and Clinical Genome Miner™ to find genetic markers that can be used to identify patients who are highly predisposed to progressing from an early to an advanced form of heart disease. The companies then hope to use this information as the basis for clinical trials. These trials would aim to establish the utility of these genetic markers in identifying patients likely to benefit from cardiovascular drugs under development at Pharmacia. We believe that this alliance underscores the potential of our pharmacogenomics approach for extending the applicability of a developmental treatment in a targeted manner, maximizing its potential benefits to patients. Through our pharmacogenomics subsidiary and CRO Encode, we will receive contract fees as part of the first phase of this agreement. If certain license options are exercised by Pharmacia, deCODE, through Encode, will receive royalties on sales of diagnostic tests as well as royalties on potential sales of cardiovascular drugs. Pharmacia may terminate this arrangement for a full refund through April 18, 2002 for certain defined circumstances.

In addition, we have entered into the following collaborations:

Partners HealthCare System, Inc. In May 2000, we entered into a three-year strategic alliance agreement and crosswalk development agreement with Partners HealthCare System, Inc., The General Hospital Corporation, d.b.a. Massachusetts General Hospital and The Brigham and Women's Hospital, Inc. (collectively, "Partners") pursuant to which (a) we will fund research by investigators of Partners pursuant to sponsored research agreements and/or clinical trial agreements to be entered into from time to time, (b) we will collaborate with Partners on, and provide funding for, development of an information technology bridge, called the crosswalk, to facilitate studies with the deCODE Combined Data Processing system and Partners' Research Patient Data Registry and (c) we will develop and market, in consultation with Partners, new information technology products and services relating to the use of the crosswalk for future pharmaceutical and biotechnology applications. We do not believe that the amount of funding we have agreed to provide over the term of the agreements is material to us.

We will have an exclusive option to acquire an exclusive license to any patents or copyrights developed under such sponsored research or clinical trial agreements on financial terms to be negotiated by the parties based on pre-determined criteria contained in the strategic alliance agreement. Each party has the right to use the crosswalk to facilitate studies with the databases for non-commercial internal research purposes. Each party also has the right to use the crosswalk to facilitate studies with such party's own database to conduct

commercially sponsored research. Partners is required to pay us a royalty on revenue it receives from such use. In addition, we have the exclusive right to use the crosswalk to develop and market products and services, and we are obligated to pay Partners a royalty on revenue we receive from the sale of such products and services. Because we have not yet developed such products or services and Partners has not yet entered into any commercially sponsored research agreements, we cannot estimate the amount of royalties we may receive or be required to pay under the agreements.

Other Hospital and Physician Collaborations. We have entered into collaboration agreements and arrangements with the Icelandic Heart Association and several physician groups. The goal of these collaborations is the discovery of genetic factors which contribute to the genesis of certain disorders on which the various physician groups maintain patient information. These collaborators contribute data and/or other clinical information to the project, while we provide our expertise in molecular genetics and experimental design, as well as necessary equipment and research supplies. We are responsible for the reimbursement of all expenses related to the projects. We share the ability to make management decisions regarding the projects with these collaborators, and we jointly form executive or steering committees to monitor the projects. Our collaboration agreements with these collaborators normally continue for a term of no more than five years.

To further facilitate our research projects and enable us to construct lists of patients with specific diseases, we have also entered into collaboration agreements and arrangements with two of the largest hospitals in Iceland, one of which was recently founded by merging the two formerly largest hospitals in Iceland. Under the terms of these agreements, the hospitals contribute research data, and surveillance committees that we jointly appoint with the hospitals monitor our projects. We are obligated to pay all the hospitals' out-of-pocket expenses incurred as a result of the collaboration. Our agreements with the hospitals will continue until terminated by the parties.

We have also entered into agreements with 19 Icelandic health institutions as required by the Icelandic Health Sector Database Act and License in order to get data from those institutions into the Health Sector Database.

Pharmacogenomics

In November 2000, we acquired Encode, a wholly owned subsidiary, to launch pharmacogenomics studies in Iceland, based on deCODE's approach. Encode also continues to conduct clinical trials for new and existing therapeutics for major pharmaceutical companies as a Contract Research Organization. We are now working with several pharmaceutical and biotechnology companies, including GenMab, Pharmacia and Affymetrix to develop and market pharmacogenomic tests. In this way, we believe that we will be able to assist pharmaceutical companies in tailoring drugs to specific parts of the patient population. Tailor-made drugs will better ensure both effectiveness and safety. In addition, genetic information may lead to faster and more successful clinical trials, which may result in cost savings. Pharmacogenomics may also enable pharmaceutical companies to explore the use of older chemical compounds which have been abandoned. As the development cost of these compounds has already been incurred, pharmacogenomics research may provide a cost-effective method to bring these abandoned products to market.

Cancer

In November 2000, we founded deCODE Cancer ehf., a wholly-owned subsidiary that has incorporated deCODE's cancer research. By creating a subsidiary with an exclusive focus on cancer, we believe that we will reinforce the ability of our researchers to continue to develop the particular skills and methods necessary for studying the complex biology involved in the study of cancer. deCODE Cancer also enjoy the flexibility to develop special alliances, while at the same time continuing to leverage deCODE's resources for population genomics research.

Proprietary Discovery and Development Programs

We also plan to work on some diseases without partnering with pharmaceutical companies, and we are currently pursuing approximately 45 disease projects independent of research sponsorships. In the event we complete any independent projects, we intend to pursue the commercial development of our gene and drug target discovery through the development and marketing of therapeutics and diagnostic products. We may do

this by using our own resources to turn discoveries from our internal projects into therapeutic or diagnostic products and developing our own marketing capabilities, by licensing our discoveries to others who would be required to pay us royalties on sales of any products they develop using the results of our gene discovery programs, or by entering into collaborative arrangements for the development and marketing of products from these programs.

In March 2002, we acquired Medichem Life Sciences Inc. through a stock-for-stock exchange and merger agreement. We did so in order to gain the advanced drug discovery and development capabilities necessary to take our targets into proprietary development. Founded in 1987, MediChem is a full-service drug discovery technology and services company focused on using its high-throughput integrated chemistry platform to streamline genomics-based drug discovery and development. At the time of the acquisition, MediChem had 163 employees, including 107 chemists, 12 molecular biologists and 9 protein crystallographers. The company has substantial expertise in structural proteomics; lead discovery and optimization; combinatorial, computational and medicinal chemistry; biocatalysis; analytical and separations chemistry; chemical synthesis and scale-up; and clinical trials management and regulatory approvals.

Database Services

The deCODE Clinical Genome Miner™ and the deCODE Combined Data Processing system allow users to ask questions about relationships between genetic, genealogical data and disease. We believe the deCODE database services systems substantially enhances the value of human genome sequence data, expression data or studies of animal models by providing a human, medical and genetic context, which may facilitate the development of new human therapeutics.

Products

We expect pharmaceutical and biotechnology companies to use the deCODE Clinical Genome Miner™ and the deCode Combined Data processing system in gene discovery programs, gene validation and drug target prioritization as a way of confirming their own findings or providing an impetus for further research.

Customers

We believe that the potential customer base for our database services consists of members of the healthcare industry, including pharmaceutical and biotechnology companies. Pharmaceutical and biotechnology companies may use our database services in their gene discovery, gene validation and pharmacogenomics programs.

We anticipate that our customers will pay for access to database products by means of a fixed subscription fee, in addition to potential share of product revenues they generate as a result of using the database.

Informatics

We have identified two broad categories of product opportunities in informatics to leverage capabilities derived from our gene discovery and database operations: bioinformatics and healthcare informatics.

Products

Bioinformatics. To aid in our gene and drug target discovery work, we have developed numerous proprietary bioinformatics tools for genealogy analysis, project management, gene mapping, physical mapping, and gene identification that we hope to commercialize as independent products.

Healthcare Informatics. In the course of our research, and in order to fulfill the Icelandic Data Protection Authority's requirements, we have developed substantial expertise in the protection and encryption of potentially sensitive personal data. All of the data used in our research, whether genealogical, genetic or medical, is used only in non-personally identifiable form, with the encryption of personal identifiers supervised by the Icelandic Data Protection Authority. We have designed efficient systems for meeting Iceland's data and privacy protection standards, which are at present among the strictest in the world. We believe that the opportunity to commercialize this expertise will grow as the healthcare industry seeks to take advantage of the

benefits that information technology offers to manage complex healthcare data while maintaining patient confidentiality.

In addition to the increasing demand for privacy protection, we believe that the "information load" on physicians will continue to grow as the genetic dimension of healthcare leads to risk prediction and a shift from generalized treatment guidelines to personalized care and the development of informed strategies of preventive medicine. This trend toward personalized healthcare presents a number of opportunities in healthcare informatics. We believe our comprehensive data and software for mining this data for knowledge give us an advantage as we pursue these opportunities in areas including:

- *Personalized Medicine.* We intend to use the knowledge that we gain from our discovery programs and the Clinical Genome Miner™ system to provide medical decision-support systems necessary to deliver and interpret this increased volume of data to a variety of end-users. We are working on integrating the CGM for use with DNA-based diagnostics under our alliance with Roche Diagnostics. We believe this will be useful not only in interpreting the results of such tests for assisting with clinical diagnosis of disease, but also for correlating results indicative of disease predisposition with other medical data in order to design novel and informed strategies of preventive medicine.
- *Disease Management.* By carefully analyzing clinical data and correlating such data with genetic factors, healthcare providers may develop programs that cover the lifespan of the disease, from preventive actions to determining the most appropriate treatments for each individual. For a healthcare provider, which is constantly making the cost/quality tradeoff, this is a unique way to design programs which optimize both cost and quality. We believe the Clinical Genome Miner lends itself to this type of analysis, and its capabilities in this area will improve with the ability of users to cross-reference CGM data with the healthcare data to be included in the Icelandic Health Sector Database.

Collaborations

Applied Biosystems Group. In July 2001, we announced the formation of a three-year alliance with Applied Biosystems Group. Under this alliance we are adapting our genotyping software suite for integration with Applied Biosystems' laboratory management software to provide a full range of highly customizable solutions for the generation, management and analysis of genotyping data. We are also collaborating with ABG to develop new bioinformatics software to meet the evolving demands of life science customers. Applied Biosystems expects to integrate the new software and customers' existing software tools with its instruments to create fully integrated genotyping solutions. We will receive royalties on sales of the alliance software.

Customers

Bioinformatics. We believe that the customers for our bioinformatics tools will mainly consist of pharmaceutical and biotechnology companies.

Healthcare informatics. We believe that privacy products can potentially be sold to any company handling sensitive data about individual persons, whether or not the data are healthcare-related. However, pharmaceutical companies, healthcare providers and payors with substantial quantities of individual data protected by privacy restrictions will serve as our primary target. We believe that products and services in the fields of personalized medicine and disease management have a broad potential customer base in the healthcare industry. Our initial focus will be on healthcare providers, national health systems, physicians and HMOs, all of whom use support tools that capture and analyze patient data to assist them in healthcare decision-making.

Research and Development Expenses

Our research and development expenses were $71,796,515 in the year ended December 31, 2001, $45,742,081 in 2000 and $33,213,557 in 1999. Of these amounts, we estimate that $26 million, $23 million and $22 million were spent on customer sponsored research and development activities in 2001, 2000 and 1999, respectively.

Patents and Proprietary Rights

We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents or are effectively maintained as trade secrets. Accordingly, patents and other proprietary rights protections are an essential element of our business. We currently rely on patents, trade secret law and contractual non-disclosure and confidentiality arrangements to protect our proprietary information. We intend to seek patent protection in the United States and other jurisdictions to protect technology, inventions and improvements to inventions that are commercially important to the development of our business, including genes we discover, mutations of genes and related processes and inventions, technologies which may be used to discover and characterize genes, and therapeutic and diagnostic processes and other inventions based on these genes. As of year-end 2001, we had four issued U.S. patents, one European patent and had filed over 30 patent applications for our inventions in the United States. We have also filed numerous international patent applications under the Patent Cooperation Treaty, claiming priority from those of our U.S. applications that we consider to be of significant commercial value. We also intend to seek patent protection or rely upon trade secret rights to protect other technologies that may be used to develop databases and healthcare informatics products and services.

We have obtained an exclusive license from The Beth Israel Deaconess Medical Center, or Beth Israel, in Boston, Massachusetts to develop and commercialize therapeutic and diagnostic products anywhere in the world based on Beth Israel's interest in patents and know-how relating to the linkage between a particular segment of DNA and multiple sclerosis. The license under the patents will expire upon the expiration of the last patent to expire and thereafter the license to the know-how will be perpetual. Under the terms of the agreement, we are obligated to pay license fees and other payments upon the achievement of specified milestones. We are also obligated to pay royalties to Beth Israel on the sales of products that may result from the licensed technology. We do not believe that payments under our agreement with Beth Israel will be material to us.

Competition

We face, and will continue to face, intense competition in our gene discovery programs from organizations such as major pharmaceutical companies, specialized biotechnology firms, pharmacogenomics companies, universities and other research institutions, the Human Genome Project and other government-sponsored entities. A number of entities are attempting to rapidly identify and patent genes responsible for causing diseases or an increased susceptibility to diseases and to develop products based on these discoveries.

Many of our competitors, either alone or together with their collaborative partners, have substantially greater financial resources and larger research and development staffs than we do. These competitors may discover, characterize or develop important genes, drug targets or drug leads before we or our collaborators do or may obtain regulatory approvals of their drugs more rapidly than we or our collaborators do. They may develop healthcare informatics and database products before we do or which are technically superior to ours or prove to be more useful to our potential customers.

Developments by others may render pharmaceutical product candidates or technologies that we or our collaborators develop obsolete or non-competitive. Any product candidate that we or our collaborators successfully develop may compete with existing therapies that have long histories of safe and effective use.

Our competitors may obtain patent protection or other intellectual property rights that could limit our rights, or our customers' ability, to use our technologies or databases, or commercialize therapeutic or diagnostics products. In addition, we face, and will continue to face, intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to proprietary technology.

Our ability to compete successfully will depend, in part, on our ability, and that of our collaborators, to:

- develop proprietary products;
- develop and maintain products that reach the market first, and are technologically superior to and more cost effective than other products on the market;
- obtain patent or other proprietary protection for our products and technologies;

- attract and retain scientific and product development personnel;
- obtain required regulatory approvals; and
- manufacture, market and sell products that we develop.

Government Regulation

Regulation by governmental authorities will be a significant factor in our ongoing research and development activities and in our proposed business relating to the deCODE Combined Data Processing system. In addition, the development, production and marketing of any pharmaceutical products which we or a partner may develop is subject to regulation by governmental authorities.

The Icelandic Health Sector Database License

On December 17, 1998, the Icelandic parliament passed the Icelandic Health Sector Database Act, or the Act, allowing the Ministry of Health and Social Security, or the Ministry, to grant an operating license to create and operate the Icelandic Health Sector Database. On January 22, 2000, the Ministry granted the Icelandic Health Sector Database license (the "License") to Islensk erfðagreining ehf., our wholly-owned Icelandic subsidiary. The License, which has a term of twelve years, allows us to collect data from medical records of Icelandic healthcare institutions and self-employed health professionals, and to transfer such data in encrypted form into a centralized database containing non-personally identifiable information. It also permits us to cross-reference the Icelandic Health Sector Database data with genealogical data and genotypic data obtained through consent.

The Act provides that patients may request at any time, by giving notice to the Icelandic Director General of Public Health, that information about them not be entered into the Icelandic Health Sector Database.

Pursuant to the terms of the License and the Act, before we can begin collecting information and transferring it into the Icelandic Health Sector Database, we must fulfill numerous conditions, such as paying fees and costs associated with the License and obtaining government approval of our privacy protection measures, and must enter into agreements with healthcare institutions and self-employed health professionals allowing us access to their medical records. Some medical professionals, including the board of directors of the Icelandic Medical Association, and the World Medical Association have opposed some aspects of the Icelandic Health Sector Database on ethical and privacy grounds. We do not believe that these views are representative of the Icelandic medical profession as a whole or that they will materially affect our ability to enter into such agreements. In August 2001 deCODE and the Icelandic Medical Association reached a certain mutual understanding about the dispute. To date we have entered into 19 such agreements with health institutions. Once we have entered into the required agreements, an independent security expert must verify that our information systems and operating procedures comply with the data security requirements of the Icelandic Data Protection Authority, or the Authority, before we can process the data we obtain from these healthcare providers.

The deCODE Combined Data Processing system and the Icelandic Health Sector Database are subject to applicable Icelandic law. The Icelandic Health Sector Database will be developed and operated pursuant to a License from the Ministry and will be subject to the Act, the regulations promulgated under the Act, the License and an agreement between the licensee and the Ministry, all of which impose numerous requirements on our activities.

As required by the License, concurrently with the issuance of the License, we, through our Icelandic subsidiary, entered into an agreement with the Ministry. This agreement provides that we must pay the Icelandic government a fixed annual fee for the license of 70 million Icelandic kronas (approximately $700,000 as of March 2002) and an additional annual fee of 6% of its net profit, as defined, of the licensee, up to a maximum of 70 million Icelandic kronas per year. The agreement also provides that our rights to the Icelandic Health Sector Database will be transferred to the Ministry on the expiration or termination of the license.

The license and the agreement under which we received the license also require us to:

- pay the costs that the health institutions incur (including the costs of medical record software) in connection with the entering of data from medical records before transfer to the Icelandic Health Sector Database;
- financially segregate the operation of the Icelandic Health Sector Database from our other activities by maintaining a separate operating unit and separate accounts for Icelandic Health Sector Database operations;
- pay the costs of the governmental agencies which monitor our Icelandic Health Sector Database activities;
- indemnify and agree not to sue the Icelandic government for any liability resulting from the passage of the legislation on the Icelandic Health Sector Database and its operation and/or the issuance of the Icelandic Health Sector Database license; and
- observe international bioethics rules.

The License prohibits us from, among other things:

- abusing our position by charging unreasonable fees, refusing business to our competitors or discriminating among customers by imposing discriminatory or other onerous business terms on our customers; or
- assigning or pledging our rights in the license.

The Act places a number of duties on us, as the Icelandic Health Sector Database licensee, and imposes a number of conditions on the License. The Act prohibits us from allowing direct access to the Icelandic Health Sector Database and requires us keep the Icelandic Health Sector Database and processing of the database in Iceland. Our database employees and contractors must sign an irrevocable confidentiality oath prior to commencing employment or performing services on our behalf. At the expiration of the License, we are required to ensure that the Ministry or a party entrusted by the Ministry will receive, without payment of consideration, intellectual property rights necessary for the creation and operation of the database for public health purposes and for scientific research.

The License may be revoked if we or our employees violate the terms of the Act, if we fail to fulfill the conditions of the License or if we become unable to operate the Icelandic Health Sector Database. If we or our employees or any person assigned to process data violate the provisions of the Act or applicable regulations with regard to confidentiality, the license requires us to compensate any persons to whom the data relate for financial loss which the violation causes. If results obtained from cross-referencing data in the deCODE Combined Data Processing system prove to be personally identifiable, the Data Protection Authority may, among other actions, order the destruction of such results in their entirety or in part or revoke its approval of the procedures and work processes applied by us to ensure privacy of the Icelandic Health Sector Database data.

The License will be reviewed by the Ministry no later than October 1, 2008. During the course of the review, we and the Ministry will enter into discussions for the renewal of the License after its expiration in 2012 provided that we continue to meet the requirements of all applicable laws and regulations. The Ministry may also review the License from time to time following our request, on its own initiative or if the License contravenes any applicable laws or regulations.

Our creation and operation of the Icelandic Health Sector Database and the deCODE Combined Data Processing system will involve oversight by the Ministry, with the assistance of an Icelandic Health Sector Database Monitoring Committee, an Interdisciplinary Ethics Committee, the Bioethics Committee of Iceland and the Data Protection Authority of Iceland. These bodies will help to ensure our compliance with applicable laws and regulations.

The Monitoring Committee consists of three members which the Minister of Health and Social Security appoints. The Monitoring Committee will ensure that the licensee complies with the Act and applicable regulations by monitoring negotiations and agreements for the transfer of data and reporting any events of noncompliance with the Act to the Ministry. The Monitoring Committee is charged with protecting the

interests of the public health authorities, health institutions, self-employed health service workers and scientists in the process of making agreements between us and those parties.

The Interdisciplinary Ethics Committee will review query types and monitor research projects for compliance with internationally accepted ethical standards for scientific research involving human beings. The Ministry has appointed members of the Interdisciplinary Ethics Committee which may halt any query or research project deemed by the committee to violate such standards.

The Bioethics Committee of Iceland is a standing committee that oversees scientific research relating to human beings in Iceland. It has no direct supervisory function over our Icelandic Health Sector Database license but will provide ethical advice to the Monitoring Committee based upon quarterly reports containing lists of queries and patient data submitted to the Icelandic Health Sector Database. The Ministry appoints the members of the committee.

Members of the Data Protection Authority (the "Authority") which is responsible for overseeing rights of privacy and data protection in Iceland. The Minister of Justice appoints the board members of the Authority. The Authority establishes the technology, security and organizational terms with which we must comply in the development of the Icelandic Health Sector Database pursuant to the License. The Authority may periodically review such terms in light of new technologies, experience or change of circumstances, and we will be required to comply with the revised data protection terms within the deadline established by the Authority. The Authority will monitor the security of the collection, use and access to patients' information and may intervene to prevent breaches of such security. The Authority will ensure that we comply with the privacy laws applicable in Iceland and will administer the access limitations to data and encryption methodology used for the Icelandic Health Sector Database.

Pharmaceutical Products

Our success will depend, in part, on the development and marketing of products based on our research and development. Strict regulatory controls on the clinical testing, manufacture, labeling, supply and marketing of the products will influence our ability and our partners' ability to successfully manufacture and market therapeutic or diagnostic products. Most countries require a company to obtain and maintain regulatory approval for a product from the relevant regulatory authority to enable the product to be marketed. Obtaining regulatory approval and complying with appropriate statutes and regulations is time-consuming and requires the expenditure of substantial resources.

Most European countries and the United States have very high standards of technical appraisal and consequently, in most cases, a lengthy approval process for pharmaceutical products. The regulatory approval processes, which usually include pre-clinical and clinical studies, as well as post-marketing surveillance to establish a compound's safety and efficacy, can take many years and require the expenditure of substantial resources. Data obtained from such studies is susceptible to varying interpretations that could delay, limit or prevent regulatory approval. Delays or rejections may also be encountered based upon changes in drug approval policies in applicable jurisdictions. There can be no assurance that we or our collaborative customers will obtain regulatory approval for any drugs or diagnostic products developed as the result of our gene discovery programs.

Because many of the products which may result from our research and development programs are likely to involve the application of new technologies, various governmental regulatory authorities may subject such products to a greater degree of review. As a result, regulatory approvals for such products may require more time than for products using more conventional technologies. In addition, ethical concerns about the use of genetic predisposition testing, and in particular about the risk that such testing could lead to discrimination by insurance providers or employers, may lead to poor market acceptance or to regulatory controls that would adversely affect the development of or demand for diagnostic products based on our research.

Environmental

deCODE's research facilities and laboratory are located in Reykjavik, Iceland. We operate under applicable Icelandic and European Union laws and standards, with which we believe that we comply, relating to environmental, hazardous materials and other safety matters. Our research and manufacturing activities

involve the generation, use and disposal of hazardous materials and wastes, including various chemicals and radioactive compounds. These activities are subject to standards prescribed by Iceland and the EU. We do not believe that compliance with these laws and standards will have any material effect upon our capital expenditures, earnings or competitive position, nor that we will have any material capital expenditures for environmental control facilities for the remainder of this fiscal year or any succeeding fiscal year.

MediChem's activities involve the controlled use of hazardous materials. We are subject to U.S. federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although we believe that MediChem's activities currently comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources. In addition, there can be no assurance that we will not be required to incur significant costs to comply with environmental laws and regulations in the future.

Employees

As of December 31, 2001, we had approximately 592 employees, of whom approximately 566 were employed full-time, 87 held Ph.D. or M.D. degrees and approximately 295 held college degrees. 499 employees were engaged in, or directly supported, research and development activities, of whom 308 worked within the laboratory facilities and 149 held positions associated with the development of informatics. 56 employees were engaged in finance, administrative support and facilities management, and about 37 were engaged in other support functions such as Business Development, Legal, Communications, Human Resources and Clinical Collaboration. In addition, we utilized part-time employees and outside contractors and consultants as needed and plan to continue to do so. We anticipate continuing growth in recruitment in 2002.

Forward Looking Statements and Cautionary Factors that May Affect Future Results

This report contains forward-looking statements. These statements relate to future events or our future financial performance. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "intend," "potential" or "continue" or the negative of such terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially due to a number of factors, including those set forth in this section and elsewhere in this Form 10-K. These factors include, but are not limited to, the risks set forth below.

deCODE may not achieve the benefits it expected from the acquisition of MediChem, which may have a material adverse effect on deCODE's business, financial and operating results

deCODE acquired MediChem with the expectation that the acquisition would result in benefits to it arising out of the combination of deCODE's unique population genomics approach to identifying novel targets in major therapeutic areas with MediChem's high-throughput integrated chemistry platform to facilitate drug discovery and development. These benefits may include operational efficiencies resulting from synergies between the companies and greater sales levels due to increases in product offerings and consolidation of sales and marketing expertise, among others. To realize any benefits from the acquisition, deCODE will face the following post-acquisition challenges:

- integrating the complementary competencies of MediChem's chemistry research platform and deCODE's gene discovery capabilities;
- retaining and assimilating the management and employees of each company;
- developing new products that utilize the assets and resources of both companies;
- retaining existing customers, strategic partners and suppliers of each company;
- realizing expected cost savings and synergies from the acquisition; and
- developing and maintaining uniform standards, controls, procedures, policies and information systems.

If deCODE is not successful in addressing these and other challenges, then the benefits of the acquisition will not be realized and, as a result, deCODE's operating results and the market price of deCODE's common stock may be adversely affected. These challenges, if not successfully met by deCODE, could result in possible unanticipated liabilities, unanticipated costs, diversion of management attention and loss of personnel. deCODE cannot assure you that it will successfully integrate MediChem's business or profitably manage the combined company. Further, deCODE cannot assure you its the growth rate after the acquisition will equal the historical growth rates experienced by deCODE before the acquisition.

If the costs associated with the MediChem acquisition exceed the benefits, deCODE may experience adverse financial results, including increased losses

deCODE will incur consolidation and integration expenses which it cannot accurately estimate at this time. Actual transaction costs may substantially exceed deCODE's current estimates and may affect its financial condition and operating results negatively. If the benefits of the acquisition do not exceed the costs associated with the acquisition, including any dilution to deCODE's stockholders resulting from the issuance of shares in connection with the acquisition, deCODE's financial results could be adversely affected, including increased losses.

The market price of deCODE's common stock may decline as a result of the MediChem acquisition

The market price of deCODE's common stock may decline as a result of the acquisition for a number of reasons, including if:

- the integration of deCODE and MediChem is not completed in a timely and efficient manner;
- deCODE does not achieve the perceived benefits of the acquisition as rapidly or to the extent anticipated by financial or industry analysts; or
- the effect of the acquisition on deCODE's financial results is not consistent with the expectations of financial or industry analysts.

Uncertainly regarding the effects of the MediChem acquisition could cause deCODE's customers or strategic partners to delay or defer decisions

deCODE's and/or MediChem's customers and strategic partners, in response to the acquisition, may delay or defer decisions, which could have a material adverse effect on deCODE's business.

deCODE may not successfully develop or derive revenues from any products or services

Discovery Services

deCODE is still in the early stages of its gene discovery programs. deCODE uses its technology and research capabilities primarily to identify genes or gene fragments that are responsible for certain diseases, indicate the presence of certain diseases or cause or predispose individuals to certain complex diseases. Although deCODE has identified some genes that it believes are likely to cause certain diseases, deCODE may not be correct and may not be successful in identifying any other similar genes. Many experts believe that some of the diseases deCODE is targeting are caused by both genetic and environmental factors. Even if deCODE identifies specific genes that are partly responsible for causing diseases, any gene-based therapeutic or diagnostic products may not detect, prevent or cure a particular disease. Accordingly, even if deCODE is successful in identifying specific genes, its discoveries may not lead to the development of commercial products.

Any pharmaceutical products that deCODE or its collaborators are able to develop will fail to produce revenues unless deCODE:

- establishes that they are safe and effective;
- successfully competes with other technologies and products;
- does not infringe on the proprietary rights of others;
- establishes that they can be manufactured in sufficient quantities at reasonable costs;
- can market them successfully; and

- can maintain the goodwill and receive the cooperation of the Icelandic population.

deCODE may not be able to meet these conditions. deCODE expects that it will be years, if ever, before it will recognize revenue from the development of therapeutic or diagnostic products.

Database Services

deCODE received a license to create and operate the Icelandic Health Sector Database, or the Database License, in January 2000, and deCODE is still in the early stages of developing this database and the deCODE Combined Data Processing system, a tool which, subject to ongoing compliance with regulatory requirements, will cross-reference genealogical records, data from the Icelandic Health Sector Database and genotypes of consenting participants. deCODE expects it will be several years before it fully develops the deCODE Combined Data Processing system. deCODE will devote substantial resources to the development of these systems and their components for the foreseeable future. Database Services include the Clinical Genome Miner which contains tools to discover or validate disease linked genes based on non-personally identifiable genotypic, genealogical and phenotypic data. deCODE cannot be sure that marketing the Clinical Genome Miner will lead to collaborations with potential clients nor that the deCODE Combined Data Processing system will result in marketable products or services. Although deCODE's intended method for cross-referencing genealogical, genotypic and healthcare data is central to the development of the deCODE Combined Data Processing system, it is unproven.

The success of deCODE's database services depends on its ability to:

- create database and cross reference software that is free from design defects or errors;
- obtain the cooperation of the Icelandic healthcare system;
- obtain blood samples from Icelanders and their consent to use their genotypic data;
- effectively use the information derived from the deCODE Combined Data Processing system in disease management, analysis of drug response, gene discovery and drug target validation; and
- develop marketing and pricing methods that the intended users of the deCODE Combined Data Processing system will accept.

deCODE's development of the Icelandic Health Sector Database will be impaired if individual Icelanders refuse to allow information from their medical records to be included in the Icelandic Health Sector Database. As of December 31, 2001, approximately 7% of the population has exercised their rights to exclude their medical records from the database. Because only a small portion of the Icelandic population may carry certain mutations, the unwillingness of even a small portion of the population to participate in deCODE's programs could diminish its ability to develop and market information based on the use of genotypic data. If deCODE fails to successfully commercialize its database services, it will not realize revenues from this part of its business.

Healthcare Informatics

Only deCODE has tested its bioinformatics and privacy protection products. These products may not meet the needs of potential customers. deCODE is at a very early stage of development of its medical decision-support systems for healthcare providers. deCODE has generated little revenues from sales or licenses of bioinformatics, decision-support or privacy protection products. To date, deCODE has not produced any decision-support tools. deCODE cannot assure you that it can successfully develop or commercialize medical decision-support systems or that there will be a market for its bioinformatics, decision-support or privacy protection products.

MediChem Services

Development and commercialization of potential drug candidates depend not only on the achievement of research objectives by MediChem and its collaborators, but also on each of MediChem's client's own financial, competitive, marketing and strategic considerations and regulatory requirements imposed by governmental and other regulatory entities in the U.S. and other countries, all of which are beyond deCODE's control. Given the uncertainties inherent in the drug discovery and development process, deCODE's ability to realize revenues from the drug discovery and developmental business is highly speculative.

If deCODE continues to incur operating losses longer than anticipated, or in amounts greater than anticipated, it may be unable to continue its operations

deCODE incurred a net loss of $47,838,471 for the year ended December 31, 2001 and has an accumulated deficit of $158,592,171 at December 31, 2001. deCODE has never generated a profit and it has not generated revenues except for payments received in connection with its research and development collaborations with Roche, other recent collaborations and interest revenues. deCODE must increase its expenditures substantially over the next several years to develop its technologies and its internal research programs and to prepare the Clinical Genome Miner Service, the Icelandic Health Sector Database, the deCODE Combined Data Processing system and informatics. As a result, deCODE expects to incur operating losses for several years. If the time required to generate product revenues and achieve profitability is longer than deCODE currently anticipates or the level of operating losses is greater than deCODE currently anticipates, deCODE may not be able to continue its operations.

If deCODE's assumption about the role of genes in disease is wrong, it may not be able to develop useful products

The products deCODE hopes to develop involve new and unproven approaches. They are based on the assumption that information about genes may help scientists to better understand complex disease processes. Scientists generally have a limited understanding of the role of genes in diseases, and few products based on gene discoveries have been developed. Of the products that exist, all are diagnostic products. To date, deCODE knows of no therapeutic products based on disease gene discoveries. If deCODE's assumption about the role of genes in the disease process is wrong, its gene discovery programs may not result in products, the genetic data included in its database and informatics products may not be useful to its customers and those products may lose any competitive advantage.

If deCODE is not able to obtain sufficient additional funding to meet its expanding capital requirements, deCODE may be forced to reduce or terminate its research programs and product development

deCODE has spent substantial amounts of cash to fund its research and development activities and expects to spend substantially more over the next several years for research and development activities. deCODE expects to use cash to expand its research and development activities, develop the Clinical Genome Miner, construct the Icelandic Health Sector Database and the deCODE Combined Data Processing system, collect the genotype data, develop healthcare informatics products and conduct drug discovery and developmental activities. Many factors will influence its future capital needs, including:

- the number, breadth and progress of its discovery and research programs;
- its ability to attract customers;
- its ability to commercialize its discoveries and the resources it devotes to commercialization;
- the amount it spends to enforce patent claims and other intellectual property rights; and
- the costs and timing of regulatory approvals.

deCODE intends to rely on Roche and other existing and future collaborators for significant funding of its research efforts. In addition, deCODE may seek additional funding through public or private equity offerings and debt financings. deCODE may not be able to obtain additional financing when it needs it or the financing may not be on terms favorable to deCODE or its stockholders. Stockholders' ownership will be diluted if deCODE raises additional capital by issuing equity securities.

If deCODE raises additional funds through collaborations and licensing arrangements, it may have to relinquish rights to some of its technologies or product candidates, or grant licenses on unfavorable terms. If adequate funds are not available, deCODE would have to scale back or terminate its discovery and research programs and product development.

deCODE may not be able to form and maintain the collaborative relationships that its business strategy requires and the relationships may lead to disputes over technology rights

deCODE must form research collaborations and licensing arrangements with several partners at the same time to operate its business strategy. deCODE currently has only six substantial collaborative relationships,

including two with Roche. To succeed, deCODE will have to maintain these relationships and establish additional collaborations. deCODE cannot be sure that it will be able to establish the additional research collaborations or licensing arrangements necessary to develop and commercialize products using its technology or that it can do so on terms favorable to deCODE. If deCODE's collaborations are not successful or deCODE is not able to manage multiple collaborations successfully, its programs will suffer. If deCODE increases the number of collaborations, it will become more difficult to manage the various collaborations successfully and the potential for conflicts among the collaborators will increase.

Dependence on collaborative relationships may lead to delays in product development and disputes over rights to technology

deCODE is dependent on collaborators for the pre-clinical study and clinical development of therapeutic and diagnostic products and for regulatory approval, manufacturing and marketing of any products that result from its technology. deCODE's agreements with collaborators typically allow them significant discretion in electing whether to pursue such activities. deCODE cannot control the amount and timing of resources collaborators will devote to its programs or potential products.

Agreements with collaborators may have the effect of limiting the areas of research that it may pursue either alone or with others

deCODE's arrangements may place responsibility for key aspects of information technology product development and marketing on its collaborative partners. If deCODE's collaborators fail to perform their obligations, deCODE's information technology products could contain erroneous data, design defects, viruses or software defects that are difficult to detect and correct and may adversely affect its revenues and the market acceptance of its products. deCODE's collaborators may stop supporting its products or providing services to it if they develop or obtain rights to competing products. Disputes may arise in the future over the ownership of rights to any technology developed with collaborators. These and other possible disagreements between deCODE's collaborators and deCODE could lead to delays in the collaborative research, development or commercialization of products. Such disagreements could also result in litigation or require arbitration to resolve.

deCODE's current facilities and staff are inadequate for commercial production and distribution of products

If deCODE chooses in the future to engage directly in the development, manufacturing and marketing of certain products, it will require substantial additional funds, personnel and production facilities.

Because revenues are concentrated, the loss of a significant customer would harm its business

Historically, a substantial portion of deCODE's and MediChem's revenue has been derived from contracts with a limited number of significant customers. deCODE's largest customer, Roche, accounted for approximately 80% of its consolidated revenue in 2001. MediChem's ten largest customers accounted for approximately 71% of its total contract revenues in 2001. The loss of any significant customer would significantly lower deCODE's revenues and affect deCODE's progression to profitability.

deCODE's reliance on the Icelandic population may limit the applicability of its discoveries to certain populations

The genetic make-up and prevalence of disease generally varies across populations around the world. Common complex diseases generally occur with a similar frequency in Iceland and other western countries. However, the populations of other western nations may be genetically predisposed to certain diseases because of mutations not present in the Icelandic population. As a result, deCODE and its partners may be unable to develop diagnostic and therapeutic products that are effective on all or a portion of the people with such diseases. Any difference between the Icelandic population and other populations may have an effect on the usefulness of the Icelandic Health Sector Database and the Clinical Genome Miner in studying populations outside of Iceland. For deCODE's business to succeed, it must be able to apply discoveries that it makes on the basis of the Icelandic population to other markets.

deCODE's creation and operation of the Icelandic Health Sector Database depends on its Database License from the Icelandic government and is subject to supervision and regulation, which may make its development of database products more expensive and time-consuming than deCODE anticipates

deCODE's construction and use of the Icelandic Health Sector Database is subject to the stipulations of the Database License. The Database License was granted to deCODE by the Ministry of Health and Social Security of Iceland, or the Health Ministry, pursuant to the Act on the Health Sector Database, no. 139/1998, or the Database Act. The Database License permits the processing of healthcare data from healthcare records and other relevant data into the Icelandic Health Sector Database. deCODE's data collection and use activities will be supervised by the Icelandic Health Sector Database Monitoring Committee, the Data Protection Authority of Iceland and an Interdisciplinary Ethics Committee. In addition, the Icelandic Bioethics Committee will review deCODE's operation of the database. Due to this oversight, deCODE is subject to the following additional risks:

- the Health Ministry may withdraw the Database License in the event that deCODE violates the terms and conditions of the Database License, the Database Act or its rules;
- the Icelandic parliament may amend the Database Act in ways which would adversely affect deCODE's ability to develop or market the database;
- there is no precedent interpreting the Database Act or the rules on which deCODE can rely;
- deCODE may fail to comply with existing data confidentiality requirements of the Database Act or the Database License, resulting in a loss of the Database License;
- the Data Protection Authority may modify or impose additional technical requirements covering areas such as data encryption and privacy protection and may require greater technical capabilities than deCODE currently has or able to procure at reasonable cost to deCODE; and
- the Interdisciplinary Ethics Committee may withdraw permission for any type of research program in the Icelandic Health Sector Database not conducted in accordance with international rules of bioethics.

Compliance with these requirements can be expensive and time-consuming and may delay or increase the cost of development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system and may limit their usefulness, which may negatively influence the commercial potential of the Processing System. Iceland is subject to both European Free Trade Association and European Union competition and public procurement rules. If it is determined that the Database Act or the Database License breaches such rules, the Database License could be revoked or diluted.

Even if deCODE is able to successfully create and market the Icelandic Health Sector Database and the deCODE Combined Data Processing system, the Database License will expire in January 2012. There is no assurance that deCODE will obtain further access rights on favorable terms, if at all.

If deCODE fails to protect confidential data adequately, it could incur liability or lose its Database License

deCODE is required, under the Database Act and the Database License, to encrypt all patient data and to take other actions to ensure the confidentiality of data included in the Icelandic Health Sector Database and to restrict access to it. deCODE must develop the Icelandic Health Sector Database in accordance with the terms regarding technology, security and organizational established by the Data Protection Authority of Iceland. The Database Protection Authority may periodically review and amend such terms in light of new technology or change of circumstances. The customers for deCODE's products also may impose additional confidentiality requirements. deCODE may accidentally disclose confidential data as a result of technical failures or human error by its employees or those of its customers or collaborators. Any failure to comply fully with all confidentiality requirements could lead to liability for damages incurred by individuals whose privacy is violated, the loss of the Database License, the loss of its customers and reputation and the loss of the goodwill and cooperation of the Icelandic population, including healthcare professionals.

If deCODE is not able to enter into agreements with more Icelandic health institutions in order to collect data, deCODE will not be able to construct and operate the Icelandic Health Sector Database

deCODE is required by the Database License to enter into agreements with Icelandic health institutions and self-employed health service professionals regarding access to and the processing of information from medical records. To date, deCODE has only entered into agreements with nineteen Icelandic health institutions. deCODE cannot be certain that it will enter into agreements with enough additional health institutions or on terms favorable to it. deCODE's inability to enter into additional agreements on favorable terms or in a timely manner could have material adverse effect on its ability to construct and operate the Icelandic Health Sector Database.

Ethical concerns may limit deCODE's ability to develop and use the Icelandic Health Sector Database and the deCODE Combined Data Processing System and may lead to litigation against deCODE or the Icelandic government

The Icelandic parliament's passage of the Database Act and the Health Ministry's granting of the Database License have raised ethical concerns in Iceland and internationally. These concerns may lead to litigation in U.S., Icelandic or other national or international courts (for example, on the basis of an alleged breach of the patient-doctor confidentiality, constitutional privacy issues, international conventions dealing with protection of privacy issues or human rights conventions).

In February 2000, an Icelandic organization known as Mannvernd, or The Association of Icelanders for Ethics in Science and Medicine, and a group of physicians and other citizens issued a press release announcing their intention to file lawsuits against the State of Iceland and any other relevant parties, including deCODE, to test the constitutionality of the Database Act. According to the press release, the lawsuit will allege human rights violations and challenge the validity of provisions of the Database Act. To date no such suit has been brought against deCODE. One lawsuit has been brought in Icelandic courts against the Directorate of Public Health in Iceland challenging the constitutionality of the Database Act. In the event that the Icelandic State by a final judgment is found to be liable or subject to payment to any third party as a result of the passage of legislation on the Icelandic Health Sector Database and/or the issuance of the Database License, deCODE's agreement with the Health Ministry requires deCODE to indemnify the Icelandic State against all damages and costs incurred in connection with such litigation. In addition, the pendency of such litigation could lead to delay in the development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system, and an unfavorable outcome could prevent deCODE from developing and operating the Icelandic Health Sector Database and the deCODE Combined Data Processing system.

deCODE has agreed to indemnify and hold harmless the Icelandic government, which may cause deCODE to incur damages and may limit its right to take certain legal actions against the government

deCODE is subject to a very extensive indemnity clause in its agreement with the Health Ministry, pursuant to which deCODE has agreed:

- not to make any claim against the government if the Database Act or the Database License is amended as a result of the Database Act or rules relating to the Icelandic Health Sector Database are found to be inconsistent with the rules of the European Economic Area, or other international rules and agreements to which Iceland is or becomes a party;
- that if the Icelandic State, by a final judgment, is found to be liable or subject to payment to any third party as a result of the passage of the Database Act and/or issuance of the Database License, deCODE will indemnify the state against all damages and costs in connection with the litigation; and
- to compensate any third parties with whom the Icelandic government negotiates a settlement of liability claims arising from the Database Act and/or the issuance of the Database License, provided that the Icelandic government demonstrates that it was justified in agreeing to make payments pursuant to the settlement.

Concerns regarding the use of genetic testing results may limit the commercial viability of any products deCODE develops

Other companies have developed genetic predisposition tests that have raised ethical concerns. It is possible that employers or others could discriminate against people who have a genetic predisposition to certain diseases. Concern regarding possible discrimination may result in governmental authorities enacting restrictions or bans on the use of all, or certain types of, genetic testing. Similarly, such concerns may lead individuals to refuse to use genetic tests even if permissible. These factors may limit the market for, and therefore the commercial viability of, products that deCODE's collaborators and deCODE develops.

deCODE may not be able to compete successfully with other companies and government agencies in the development and marketing of products and services

A number of companies are attempting to rapidly identify and patent genes that cause diseases or an increased susceptibility to diseases. Competition in this field and deCODE's other areas of business, including database services, healthcare informatics and drug discovery and development, is intense and is expected to increase. deCODE has numerous competitors, including major pharmaceutical and diagnostic companies, specialized biotechnology firms, universities and other research institutions, the United States-funded Human Genome Project and other government-sponsored entities and companies providing healthcare information products. deCODE's collaborators, including Roche, may also compete with deCODE. Many of deCODE's competitors have considerably greater capital resources, research and development staffs and facilities, and technical and other resources than deCODE does, which may allow them to discover important genes before deCODE does. deCODE believes that a number of its competitors are developing competing products and services that may be commercially successful and that are further advanced in development than its potential products and services. To succeed, deCODE, together with its collaborators, must discover disease-predisposing genes, characterize their functions, develop genetic tests or therapeutic products and related information services based on such discoveries, obtain regulatory and other approvals, and launch such services or products before competitors. Even if deCODE's collaborators or deCODE is successful in developing effective products or services, deCODE's products and services may not successfully compete with those of its competitors. deCODE's competitors may succeed in developing and marketing products and services that are more effective than deCODE's or that are marketed before deCODE's.

Competitors have established, and in the future may establish, patent positions with respect to gene sequences related to deCODE's research projects. Such patent positions or the public availability of gene sequences comprising substantial portions of the human genome could decrease the potential value of deCODE's research projects and make it more difficult for deCODE to compete. deCODE may also face competition from other entities in gaining access to DNA samples used for research and development purposes.

deCODE expects competition to intensify as technical advances are made and become more widely known. deCODE's future success will depend in large part on maintaining a competitive position in the genomics field. Others' or deCODE's rapid technological development may result in products or technologies becoming obsolete before deCODE recovers the expenses it incurs in developing them. Less expensive or more effective technologies could make future products obsolete. deCODE cannot be certain that it will be able to make the necessary enhancements to any products it develops to compete successfully with newly emerging technologies.

Others may claim intellectual property rights to deCODE's genealogy database, which could prevent deCODE from using some or all of its database and impair its ability to derive revenues from its database and gene discovery services

There are other firms and agencies that have prepared, or are currently preparing, genealogy databases similar to the one deCODE has developed. If any parties claim that any of deCODE's databases infringes on their intellectual property rights, deCODE would have to defend against their claim, cease using the infringing property or pay them for the use of the infringing property. Two parties have filed a copyright infringement suit against deCODE in Iceland. They claim to hold copyrights to approximately 100 Icelandic genealogy books and claim that deCODE has used data from these books in the creation of its genealogy database, in violation

of their rights. The claimants seek to prevent deCODE's use of its genealogy database. They also seek monetary damages in the amount of approximately 616 million Icelandic kronas. deCODE believes that this suit is without merit and intends to defend it vigorously, but if it were successful it could have a material adverse effect on deCODE's database and gene discovery services.

deCODE may not be able to protect the proprietary rights that are critical to its success

deCODE's success will depend on its ability to protect its genealogy database and genotypic data and any other proprietary databases that it develops and its proprietary software and other proprietary methods and technologies. Despite deCODE's efforts to protect its proprietary rights, unauthorized parties may be able to obtain and use information that deCODE regards as proprietary. deCODE's commercial success will depend in part on obtaining patent protection. The patent positions of pharmaceutical, biopharmaceutical and biotechnology companies, including deCODE's, are generally uncertain and involve complex legal and factual considerations. deCODE cannot be sure that any of its pending patent applications will result in issued patents, that it will develop additional proprietary technologies that are patentable, that any patents issued to deCODE or deCODE's partners will provide a basis for commercially viable products, will provide deCODE with any competitive advantages or will not be challenged by third parties, or that the patents of others will not have an adverse effect on deCODE's ability to do business.

In addition, patent law relating to the scope of claims in the area of genetics and gene discovery is still evolving. There is substantial uncertainty regarding the patentability of genes or gene fragments without known functions. The laws of some European countries provide that genes and gene fragments may not be patented. The Commission of the EU has passed a directive that prevents the patenting of genes in their natural state. The U.S. Patent and Trademark Office initially rejected a patent application by the National Institutes of Health on partial genes. Accordingly, the degree of future protection for deCODE's proprietary rights is uncertain and, deCODE cannot predict the breadth of claims allowed in any patents issued to it to others. deCODE could also incur substantial costs in litigation if it is required to defend itself in patent suits brought by third parties or if it initiates such suits.

Others may have filed and in the future are likely to file patent applications covering genes or gene products that are similar or identical to deCODE's products. deCODE cannot be certain that its patent applications will have priority over any patent applications of others. The mere issuance of a patent does not guarantee that it is valid or enforceable; thus even if deCODE is granted patents it cannot be sure that they would be valid and enforceable against third parties. Further, a patent does not provide the patent holder with freedom to operate in a way that infringes the patent rights of others. Any legal action against deCODE or its partners claiming damages and seeking to enjoin commercial activities relating to the affected products and processes could, in addition to subjecting deCODE to potential liability for damages, require deCODE or its partners to obtain a license in order to continue to manufacture or market the affected products and processes. There can be no assurance that its partners or deCODE would prevail in any action or that any license required under any patent would be made available on commercially acceptable terms, if at all. If licenses are not available, its partners or deCODE may be required to cease marketing its products or practicing its methods.

If expressed sequence tags, single nucleotide polymorphisms, or SNPs, or other sequence information become publicly available before deCODE applies for patent protection on a corresponding full-length or partial gene, deCODE's ability to obtain patent protection for those genes or gene sequences could be adversely affected. In addition, other parties are attempting to rapidly identify and characterize genes through the use of gene expression analysis and other technologies. If any patents are issued to other parties on these partial or full-length genes or gene products or uses for such genes or gene products, the risk increases that the sale of deCODE's or its collaborators' potential products or processes may give rise to claims of patent infringement. The amount of supportive data required for issuance of patents for human therapeutics is highly uncertain. If more data than deCODE has available is required, our ability to obtain patent protection could be delayed or otherwise adversely affected. Even with supportive data, the ability to obtain patents is uncertain in view of evolving examination guidelines, such as the utility and written description guidelines that the U.S. Patent and Trademark Office has adopted.

While deCODE requires employees, academic collaborators and consultants to enter into confidentiality agreements, there can be no assurance that proprietary information will not be disclosed, that others will not independently develop substantially equivalent proprietary information and techniques, otherwise gain access to our trade secrets or disclose such technology, or that deCODE can meaningfully protect its trade secrets. If the information processed by the deCODE Combined Data Processing system is disclosed without deCODE's authorization, demand for its products and services may be adversely affected.

Regulatory approvals for products resulting from deCODE's gene discovery programs must be obtained or deCODE will not be able to derive revenues from these products

Government agencies must approve new drugs and diagnostic products in the countries in which they are to be marketed. deCODE cannot be certain that we can obtain regulatory approval for any drugs or diagnostic products resulting from its gene discovery programs. The regulatory process can take many years and require substantial resources. Because some of the products likely to result from deCODE's disease research programs involve the application of new technologies and may be based upon a new therapeutic approach, various government regulatory authorities may subject such products to substantial additional review. As a result, these authorities may grant regulatory approvals for these products more slowly than for products using more conventional technologies. Furthermore, regulatory approval may impose limitations on the use of a drug or diagnostic product.

After initial regulatory approval, a marketed product and its manufacturer must undergo continuing review. Discovery of previously unknown problems with a product may have adverse effects on deCODE's business, financial condition and results of operations, including withdrawal of the product from the market.

deCODE's dependence upon a single third party for sequencing machines may impair its research programs

deCODE currently uses a single manufacturer to supply the gene sequencing machines that it uses in its gene discovery program and their necessary supplies. While other types of gene sequencing machines are available from other manufacturers, deCODE does not believe that the other machines are as efficient as the machines it currently uses. deCODE cannot be sure that the gene sequencing machines or their necessary supplies will remain available in sufficient quantities at acceptable costs. If deCODE cannot obtain additional supplies for its gene sequencing machines at commercially reasonable rates, or if deCODE is required to change to a new supplier of gene sequencing machines, its gene discovery programs would be adversely affected.

Efforts to reduce healthcare costs may reduce market acceptance of deCODE's products

deCODE's success will depend in part on the price and extent to which it will be paid for its products by government and health administration authorities, private health insurers and other third party payors. Reimbursement for newly approved healthcare products is uncertain. Third party payors, including Medicare in the United States, are increasingly challenging the prices charged for medical products and services. They are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new therapeutic products. deCODE cannot be certain that any third party insurance coverage will be available to patients for any products deCODE discovers or develops. If third party payors do not provide adequate coverage and reimbursement levels for deCODE's products, the market acceptance of these products may be materially reduced.

Numerous governments have undertaken efforts to control growing healthcare costs through legislation, regulation and voluntary agreements with medical care providers and pharmaceutical companies. If cost containment efforts limit the profits that can be derived from new drugs, deCODE's customers may reduce their research and development spending which could reduce the business they outsource to deCODE.

deCODE's operations may be impaired unless it can successfully manage its growth

deCODE has recently experienced significant growth in the number of its employees and the scope of its operations and its facilities, and will continue to grow as a result of the MediChem acquisition. deCODE's management and operations are, and may continue to be, under significant strain due to this growth. To

manage deCODE's growth, deCODE must strengthen its management team and attract and retain skilled employees. deCODE cannot be sure that it will be able to retain qualified employees. deCODE's success will also depend on its ability to improve its management information, research information and operational control systems and to expand, train and manage its workforce.

Changes in outsourcing trends and consolidation in the pharmaceutical and biotechnology industries could adversely affect deCODE's growth

Economic factors and industry trends that affect deCODE's primary customers, pharmaceutical and biotechnology companies also affect deCODE's business. For example, the practice of many companies in these industries has been to outsource from organizations like deCODE to conduct genetic research, clinical research, sales and marketing projects and chemistry research and development projects. Some industry commentators believe that the rate of growth of outsourcing will trend downward. If these industries reduce their present tendency to outsource those projects, deCODE's operations, financial condition and growth rate could be materially and adversely affected. deCODE also believes it has been negatively impacted by pending mergers and other factors in the pharmaceutical industry, which appear to have slowed decision making by its customers and delayed certain trials. A continuation of these trends would have an ongoing adverse effect on its business. Our ability to generate new business could be impaired by general economic downturns in our customers' industries.

Some parts of deCODE's product development services create a risk of liability from clinical trial participants and the parties with whom it contracts

deCODE, through its subsidiary Encode ehf., contracts with drug companies to perform a wide range of services to assist them in bringing new drugs to market. deCODE also contracts with physicians to serve as investigators in conducting clinical trials. deCODE's services include:

- supervising clinical trials;
- data and laboratory analysis;
- patient recruitment;
- acting as investigators in conducting clinical trials; and
- engaging in Phase I clinical trials.

If, in the course of these trials or activities:

- deCODE does not perform its services to contractual or regulatory standards;
- patients or volunteers suffer personal injury caused by or death from adverse reactions to the test drugs or otherwise;
- there are deficiencies in the professional conduct of the investigators with whom deCODE contracts;
- one of deCODE's laboratories inaccurately reports or fails to report lab results; or
- deCODE's informatics products violate rights of third parties;

then, deCODE would have a risk of liability from the drug companies with whom it contracts or the study participants. deCODE maintains insurance to cover ordinary risks but any insurance might not be adequate, and it would not cover the risk of a customer deciding not to do business with deCODE as a result of poor performance.

Use of therapeutic or diagnostic products developed as a result of deCODE's programs may result in product liability claims for which deCODE has inadequate insurance

The users of any therapeutic or diagnostic products developed as a result of deCODE's discovery or research programs or the use of its database or medical decision-support products may bring product liability claims against deCODE. deCODE currently does not carry liability insurance to cover such claims. deCODE is not certain that its collaborators or it will be able to obtain such insurance or, if obtained, that sufficient coverage can be acquired at a reasonable cost. If deCODE cannot protect against potential liability claims, deCODE's collaborators or deCODE may find it difficult or impossible to commercialize products.

deCODE may be unable to hire and retain the key personnel upon whom its success depends

deCODE depends on the principal members of its management and scientific staff, including Dr. Kari Stefansson, Chairman, President and Chief Executive Officer, Hannes Smarason, Senior Vice President and Business Officer, and Dr. Jeffrey Gulcher, Vice President, Research and Development, among others, and, since the MediChem acquisition, key management and scientific staff of MediChem. deCODE has not entered into agreements with any of these persons that bind them to a specific period of employment, except that two key employees of MediChem's wholly-owned subsidiary, Emerald BioStructures, Inc., have entered into employment agreements with deCODE for a term of one year. If any of these people leaves deCODE, deCODE's ability to conduct its operations may be negatively affected. deCODE's future success also will depend in part on its ability to attract, hire and retain additional personnel. There is intense competition for such qualified personnel and deCODE cannot be certain that it will be able to continue to attract and retain such personnel. Failure to attract and retain key personnel could have a material adverse effect on deCODE.

In addition, the success of deCODE's business depends in part on the continued service of key MediChem personnel. Despite deCODE's efforts to retain quality employees, it might lose some of MediChem's key employees. In addition, the acquisition may have caused current and prospective deCODE and/or MediChem employees to experience uncertainty about their future roles with deCODE. This may adversely affect deCODE's ability to attract and retain key management, technical, sales and marketing personnel.

Currency fluctuations may negatively affect deCODE's financial condition

deCODE publishes its consolidated financial statements in U.S. dollars. Currency fluctuations can affect its financial results because a portion of its cash reserves and its operating costs are in Icelandic kronas. A fluctuation of the exchange rates of the Icelandic krona against the U.S. dollar can thus adversely affect the "buying power" of deCODE's cash reserves and revenues. Most of deCODE's long-term liabilities are U.S. dollar denominated. However, deCODE may enter into hedging transactions if it has substantial foreign currency exposure in the future. deCODE may have increased exposure as a result of investments or payments from collaborative partners.

deCODE's contracts may be terminable upon short notice

MediChem's contracts are generally terminable upon 10 to 90 days' notice. deCODE's contracts thus will be subject to termination for numerous reasons, any of which may be beyond its control such as a reduction or reallocation of a customer's research and development budget or a change in a customer's overall financial condition. The loss of a large contract or multiple smaller contracts, or a significant decrease in revenue derived from a contract, could significantly reduce deCODE's profitability and require it to reallocate under-utilized physical and professional resources.

Item 2. *Properties*

In January 2002, deCODE moved its headquarters and laboratories, to an approximately 150,000 square feet, three-story building owned by us and located on property subject to a 50-year ground lease at Sturlugata 8 Reykjavik, Iceland. Furthermore, we own a total of 28,000 square feet and have leased an additional 3,000 square feet in a building at Krokhals 5, Reykjavik, to house additional laboratory facilities and storage. We also lease approximately 6,500 square feet of office space in Waltham, Massachusetts, for business development and finance, approximately 3,000 square feet at Geirsgata 9, Reykjavik for Encode's operation and maintain a facility for approximately 15 genealogist located in Thverholt 14, Reykjavik.

MediChem's principal executive offices and discovery laboratories center are located in Woodridge, Illinois, and encompass approximately 100,000 square feet. MediChem has the capability to expand its offices and laboratories to 200,000 square feet. MediChem occupies approximately 50,000 square feet of additional leased office and laboratory space in Lemont, Illinois, which lease expires in October 2003. MediChem also occupies 15,000 square feet of additional laboratory space in Des Plaines, Illinois, which lease runs through October 2002, with an option to lease on a year-to-year basis. At December 31, 2001, three satellite business development offices were leased in South San Francisco, California, for 1,460 square feet, in New London, Connecticut, for 1,630 square feet and in La Jolla Del Mar, California, for 150 square feet. Emerald

BioStructures, a wholly-owned subsidiary of MediChem, operates from an 8,500 square feet leased facility located near Seattle, Washington.

Item 3. *Legal Proceedings*

We are not a party to any material legal proceedings except as follows:

In January 2000, Thorsteinn Jonsson and Genealogia Islandorum hf., the alleged holders of copyrights to approximately 100 books of genealogical information, commenced an action against us in the District Court of Reykjavik in Iceland. They allege that our genealogy database infringes their copyrights and seek damages in the amount of approximately 616 million Icelandic kronas and a declaratory judgment to prevent us from using the allegedly infringing data. We believe the suit is without merit and intend to defend this action vigorously; however, the ultimate resolution of this matter cannot yet be determined.

In February 2000, Mannvernd, an organization known as the Association of Icelanders for Ethics in Science and Medicine, issued a press release announcing its intention to file lawsuits against the State of Iceland and any other relevant parties, including us, to test the constitutionality of the Act. In its press release, Mannvernd indicated that it hopes to halt the construction and/or operation of the Icelandic Health Sector Database. In April 2001, a lawsuit was filed against the Icelandic Directorate of Public Health but Mannvernd has not commenced litigation against us; however, the ultimate resolution of this matter cannot yet be determined.

In April 2000, Ernir Snorrason, an original stockholder of deCODE, filed a complaint in the Court of Chancery of the State of Delaware for New Castle County alleging that we improperly exercised an option to repurchase 256,637 shares of common stock that we issued to Mr. Snorrason in 1996 pursuant to a Founders' Stock Purchase Agreement and seeking an order requiring us to recognize Mr. Snorrason as the owner of these shares. In June 2001, the parties settled the matter without admission or adjudication of any issue of fact or law and 166,814 shares of our common stock were issued to Mr. Snorrason for $0.001 per share, the par value, with the resulting loss ($1,292,642) being recorded as a general and administrative expense at that time.

Although we have not yet been served with copy of the complaint, management is aware that on December 6, 2001, a purported class action alleging violations of federal securities laws was filed in the United States District Court for the Southern District of New York on behalf of certain purchasers of deCODE common stock. The complaint names us, two of our current executive officers (the "Individual Defendants"), and the two lead underwriters (the "Underwriter Defendants") for our initial public offering in July 2000 (the "IPO") as defendants.

The plaintiff alleges violations of Section 11 of the Securities Act of 1933 against us and the Individual Defendants, violations of Section 15 of the Securities Act of 1933 against the Individual Defendants and violations of Sections 11 and 12(a)(2) of the Securities Act of 1933 and Section 10(b) of the Securities Exchange Act of 1934 (and Rule 10b-5 promulgated thereunder) against the Underwriter Defendants. Generally, the complaint alleges that the Underwriter Defendants: (i) solicited and received excessive and undisclosed commissions from certain investors in exchange for which the Underwriter Defendants allocated to those investors material portions of the shares of our stock sold in the IPO and (ii) entered into agreements with customers whereby the Underwriter Defendants agreed to allocate shares of our stock sold in the IPO to those customers in exchange for which the customers agreed to purchase additional shares of our stock in the aftermarket at pre-determined prices. The complaint further alleges that the prospectus incorporated into the registration statement for the IPO was materially false and misleading in that it failed to disclose these arrangements. The suit seeks unspecified monetary and recissionary damages and certification of a plaintiff class consisting of all persons who purchased shares of our common stock from July 7, 2000 to December 6, 2000.

We are aware that similar allegations have been made in hundreds of other lawsuits filed (many by some of the same plaintiff law firms) against numerous underwriter defendants and issuer companies (and certain of their current and former officers) in connection with various public offerings conducted in recent years. All of the lawsuits that have been filed in the Southern District of New York have been consolidated for pretrial purposes before Honorable Judge Shira A. Scheindlin.

We believe that the allegations against us and our officers are without merit and we intend to contest them vigorously. The litigation is, however, in the preliminary stage, and we cannot predict its outcome and the ultimate effect, if any, on our financial condition. In addition, it is possible that further lawsuits alleging substantially similar claims will be filed against us and our officers. If we are required to pay significant monetary damages as a result of such litigation, our business could be significantly harmed. Even if such suit or suits conclude in our favor, we may be required to expend significant funds to defend against the allegations. We are unable to estimate the range of possible loss from the litigation and no amounts have been provided for such matters in our financial statements.

Item 4. *Submission of Matters to a Vote of Security Holders*

Not applicable.

PART II

Item 5. *Market for the Company's Common Equity and Related Stockholder Matters*

The Company's Common Stock has been traded on the Nasdaq National Market and the EASDAQ Market under the symbol "DCGN" since July 17, 2000. The following table sets forth, for the calendar periods indicated, the range of high and low sale prices for the Common Stock of the Company on the Nasdaq National Market:

2000	High	Low
Third Quarter (commencing July 17, 2000)	$31.50	$22.00
Fourth Quarter	$26.63	$ 8.94
2001		
First Quarter	$11.25	$ 6.56
Second Quarter	$15.15	$ 5.28
Third Quarter	$12.25	$ 5.75
Fourth Quarter	$10.60	$ 5.92

As of March 22, 2002, there were 5,876 holders of record of the Common Stock, with beneficial stockholders in excess of such amount. On March 22, 2002, the last sale price reported on the Nasdaq National Market for the Common Stock was $5.79 per share.

On November 15, 2001, we issued 94,444 shares of our common stock to Medical Science Partners II, L.P. upon the net exercise of a warrant for 100,000 shares with an exercise price of $1.00 per share. The issuance of these securities was deemed to be exempt from registration under the Securities Act by virtue of Section 4(2) as a transaction not involving any public offering. The transferee made appropriate representations as part of the settlement and had, or had access to, adequate information about deCODE. Appropriate legends are affixed to the stock certificate that was issued.

We commenced an initial public offering of our common stock, $.001 par value, on July 17, 2000 pursuant to registration statements on Form S-1 (Registration Nos. 333-31984 and 333-41598), which were declared effective by the Securities and Exchange Commission on July 17, 2000. Net proceeds to us after

deduction of expenses were approximately $182.0 million. Through December 31, 2001, we have used approximately $120.4 million dollars of the proceeds as follows:

Discovery and research programs	$ 61.0
ABI Prism 3700 DNA Analyzers	13.1
Construction of executive office and laboratory facilities	23.7
Construction of other laboratory facilities	2.7
Computer equipment	3.0
Other laboratory equipment	4.3
Other property and equipment	0.9
General and administrative activities	9.5
Installment payments on capital lease obligations	1.8
Interest	0.4
	$120.4

Pending use, we have invested the remaining proceeds primarily in U.S. dollar denominated money market, checking and other accounts but also partly in Icelandic krona denominated accounts.

Item 6. *Selected Financial Data*

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and the notes to those statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report. The consolidated statement of operations data for the fiscal years ended December 31, 1999, 2000 and 2001 and the consolidated balance sheet data at December 31, 2000 and 2001 are derived from consolidated financial statements included elsewhere in this Annual Report that have been audited by PricewaterhouseCoopers ehf., independent auditors. The consolidated statement of operations data for the fiscal years ended December 31, 1997 and 1998 and the consolidated balance sheet data at December 31, 1997, 1998 and 1999, are derived from statements that have been audited by PricewaterhouseCoopers ehf. and are not included in this Annual Report. Historical results are not necessarily indicative of future results.

	As of December 31,				
	1997	1998	1999	2000	2001
Revenue	$ 0	$ 12,705,000	$ 16,591,485	$ 21,545,656	$ 31,550,626
Operating expenses					
Research and development	6,080,096	19,282,364	33,213,557	45,742,081	71,796,515
General and administrative	1,967,684	4,893,202	8,220,758	15,373,223	12,402,283
Total operating expenses	8,047,780	24,175,566	41,434,315	61,115,304	84,198,798
Operating loss	(8,047,780)	(11,470,566)	(24,842,830)	(39,569,648)	(52,648,172)
Interest Income	163,076	922,230	2,187,695	8,866,604	6,925,135
Other non-operating income and (expense), Net	(171,537)	(359,894)	(1,133,312)	(415,459)	(2,115,434)
Taxes	0	0	0	0	0
Net loss	(8,056,241)	(10,908,230)	23,788,447)	(31,118,503)	(47,838,471)
Accrued dividends and Amortized discount on preferred stock(2)	(620,385)	(2,571,523)	(7,542,787)	(7,540,879)	0
Premium on repurchase of preferred stock	0	0	(30,887,044)	0	0
Net loss available to common stockholders(2)	$(8,676,626)	$(13,479,753)	$(62,218,278)	$(38,659,382)	$(47,838,471)
Basic and diluted net loss per share	$ (3.85)	$ (3.06)	$ (9.65)	$ (1.63)	$ (1.08)
Shares used in computing basic and diluted net loss per share(1)(2)	2,254,413	4,400,576	6,446,055	23,671,113	44,289,911
Other non-GAAP Financial Data:					
Pro forma basic and diluted net loss per share(3)			$ (0.86)	$ (0.85)	
Shares used in computing pro forma basic and diluted net loss per share(3)			27,559,365	36,483,034	

	As of December 31,				
	1997	1998	1999	2000	2001
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$ 2,714,225	$ 25,075,844	$ 29,845,664	$194,144,688	$153,061,132
Total assets	6,770,492	38,540,115	80,526,534	248,900,567	256,359,169
Total long-term liabilities	1,331,156	6,946,330	5,471,054	3,519,114	46,278,564
Redeemable, convertible preferred stock(2)	12,603,990	43,158,079	121,589,367	0	0
Total stockholders' equity (deficit)(2)	(9,907,939)	(18,222,123)	(72,772,138)	216,269,166	175,341,933

(1) See notes to the consolidated financial statements for an explanation of the determination of the shares used in computing basic and diluted net loss per share.

(2) Effective upon the closing of our initial public offering in 2000, the outstanding shares of preferred stock were converted into shares of common stock and retired.

(3) Pro forma basic and diluted net loss per share is computed as if the preferred shares had converted into common shares immediately upon their issuance. Accordingly, in the calculation of pro forma net loss per share, net loss has not been increased for the accumulated dividends or amortized discounts on preferred stock.

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations.*

You should read this section in conjunction with our consolidated financial statements and related notes thereto appearing elsewhere in this document.

Overview

deCODE was incorporated in August 1996. We are a genomics and health informatics company that provides products and services for the healthcare industry. Our approach to the discovery of healthcare knowledge brings together three key types of non-personally identifiable population data derived from the Icelandic nation: information from the healthcare system, information about genealogical relationships among individuals covered by this system and associated molecular genetics data.

We are developing three avenues of commercialization: Discovery Services, Database Services and Informatics related to analysis of human genome data and healthcare. The Discovery Services focus on gene and drug target discovery, the development and marketing of DNA-based diagnostics for major diseases and pharmacogenomics, or the discovery of genes related to drug response. Database Services include the Clinical Genome Miner, containing tools to discover or validate disease-linked genes based on non-personally identifiable genotypic, genealogical and phenotypic data. In addition, deCODE intends to construct and commercialize the Icelandic Health Sector Database and the deCODE Combined Data Processing system. The Icelandic Health Sector Database contains non-personally identifiable data from Icelandic healthcare records, and the deCODE Combined Data Processing system allows cross-referencing of data from the Icelandic Health Sector Database with genealogical and genotypic data. Informatics will encompass the building of tools for computerized analysis of healthcare data and of genetic and disease related data, as well as software relating to computer security, privacy protection and encryption.

We have incurred losses since our inception, principally as a result of research and development and general and administrative expenses in support of our operations. As of December 31, 2001 we had an accumulated deficit of $158,592,171. We anticipate incurring additional losses over at least the next several years as we expand our internal and collaborative gene discovery efforts, continue our commercialization of discovery efforts, technology development and construction of database services and informatics. We expect that our losses will fluctuate from quarter to quarter and that such fluctuations may be substantial especially because progress in our scientific work and milestone payments that are related to progress can fluctuate between quarters.

Collaborations and Alliances

In February 1998, we entered into a research collaboration and cross-license agreement with F. Hoffmann-La Roche, or Roche, regarding research into the genetic causes of twelve diseases. Under the terms of the agreement, Roche has made equity investments and funded gene discovery programs in the twelve diseases through January 2002 when the term of the agreement expired.

In June 2001, we entered into a collaboration and cross-license agreement with Roche regarding diagnostics. Under the terms of this new agreement, we are collaborating on the development and marketing of DNA-based diagnostics for major diseases. We are working with Roche to identify and validate molecular targets which are useful for developing products and services that accurately establish a patient's current diagnosis, predict future risk of disease, predict drug response and determine responses to treatment or the health status of individuals and enable early prevention or treatment of disease. We will also be focusing on developing informatics products and services, which will include software tools and databases. Under the agreement we will receive payments including research funding, research milestones and royalties on any products that are commercialized. The research term under the agreement is five years.

In June 2001, we entered into a collaboration agreement with Genmab A/S and Medarex, Inc. pursuant to which we are collaborating on the research, development, and commercialization of new antibody therapeutic products. Under this five-year collaboration, we are utilizing novel targets discovered in our research on the genetics of common diseases along with Genmab's human antibody technology. The

collaboration covers a broad range of disease areas including cardiovascular disease, inflammatory disease and cancer. Together with Genmab and Medarex, we will share equally in the development costs and revenues generated from the outlicensing or sales of products developed under the agreement. Under the terms of this collaboration, Medarex will also contribute resources and will share certain costs and commercial rights.

In June 2001, we entered into an agreement to provide Genmab A/S with research and development services to develop DNA-based tests to predict individual clinical response to Genmab's antibody treatment for rheumatoid arthritis and possible related novel therapeutics. We will be paid as stages of the research program are completed.

In July 2001, we entered into a pharmacogenomics collaboration and license agreement with Affymetrix, Inc. Under the terms of the agreement the parties are collaborating in the research and development of gene expression tests and nucleic acid based tests to predict the response of individual patients to various drugs. We are undertaking the initial research activities to be performed with respect to the initial ten drugs to be studied under the collaboration. Affymetrix will supply various chips in connection with the research. We will share revenues resulting from the collaboration, including those from licensing and product commercialization, with Affymetrix.

In July 2001, we entered into a joint development and commercialization agreement with Applied Biosystems Group, or ABG. Under the terms of the agreement, we are working with ABG to jointly develop and commercialize software products for the collection, organization and analysis of genotyping information. The agreement provides for the development to be overseen by a joint steering committee that has specific responsibilities for the implementation and management of the joint development and joint commercialization programs. Under this agreement, ABG and we have granted to each other licenses to products developed under the joint development program.

In December 2001, we formed a pharmacogenomics alliance with Pharmacia Corporation to identify the role of genetics in the development of advanced forms of heart disease. Under the agreement, we will employ our population resources and Clinical Genome Miner discovery system to find genetic markers that can be used to identify patients who are highly predisposed to progressing from an early to an advanced form of heart disease. If the results of the first phase are encouraging, Pharmacia has the option to use the genetic markers as the basis for clinical trials of cardiovascular drugs under development at Pharmacia. We will receive contract fees as part of the first phase of this agreement and, in addition, royalties on sales of diagnostic tests as well as royalties on potential sales of cardiovascular drugs should Pharmacia exercise its licensing options in the alliance.

In January 2002, we entered into a new Collaboration and Cross-License Agreement with Roche. This new, three-year alliance leverages our expanding capabilities in drug discovery into developing novel treatments for common diseases. Under this new alliance, Roche will provide research funding for a minimum of the next two years for us to conduct downstream research in a selection of four diseases, with the goal of using the targets identified to discover and develop new therapeutic compounds and to take these compounds into clinical trials. Also, we will receive development and regulatory approval milestone payments for therapeutic drug compounds developed pursuant to the agreement as well as royalties on Roche's sales of drugs developed under the agreement. Additionally, we will pay Roche royalties should we develop and market drugs for certain common diseases.

We have a number of collaborative agreements with local medical institutions and doctors regarding particular disease research. These agreements generally extend for a period of five years. Under the agreements, these institutions and/or physicians contribute data or other clinical information and we contribute equipment, research supplies and our molecular genetics and experimental design expertise. The agreements also require us to reimburse all project-related expenses. If we sell project results, the agreements require us to make specified payments and pay a portion of performance-based milestone payments that we receive.

We have a settlement agreement with a U.S. medical institution whereby we are committed to pay royalties and milestone payments if we are successful in developing and commercializing products that result from a particular technology jointly owned by the medical institution and us.

Acquisition of Medichem

In March 2002, we acquired MediChem Life Sciences, Inc. in a stock-for-stock exchange to be accounted for as a purchase transaction. The acquisition gives us capabilities in chemistry and structural proteomics that will be used in the implementation of its strategy of turning its targets identified by applying population genomics to common diseases into novel drugs for the market. Building upon the acquisition of MediChem, we will be creating an integrated biopharmaceutical company capable of bringing our own targets into proprietary drug discovery. Through the acquisition we added approximately 160 new employees and facilities in Illinois and Washington.

In the first quarter of 2002, we will record the transaction as a purchase for accounting purposes and allocate the purchase price (approximately $86.7 million), based upon independent valuations, to the assets purchased and liabilities assumed based upon their respective fair values. We will allocate the excess of the purchase price over the estimated fair market value of net tangible assets acquired to identified intangibles, including developed technology, patents, customer and other contracts and agreements that have estimated useful lives ranging from three to ten years. Based upon a preliminary review, we estimate the charge to earnings for acquired in-process research and development to be approximately $0.5 million and the annual amortization charge for other identifiable intangibles to amount to approximately $1.2 million. Also based on this preliminary review, we estimate resulting goodwill will be approximately $58.3 million. The amount allocated to identified intangibles will be determined upon the completion of independent appraisals and, therefore, may differ from our current estimate.

Our consolidated financial statements will include the cash flows and results of MediChem from March 18, 2002 and the integration of MediChem will impact our results of operations and our financial position. With MediChem, our revenues will increase but our operating expenses and likely our net losses will also increase. In addition, we expect to fund the working capital needs and operating activities of MediChem in the near term. The extent to which MediChem will ultimately impact our results of operations and financial condition is largely dependant upon how quickly and in what proportion MediChem's capacity is brought to bear on our in-house programs and how much of their existing contract services business is maintained and developed.

General

We anticipate that collaborations will remain an important element of our business strategy and future revenues. Our ability to generate revenue growth and become profitable is dependent, in part, on our ability to enter into additional collaborative arrangements, and on our ability and our collaborative partners' ability to successfully commercialize products incorporating, or based on, our work. There can be no assurance that we will be able to maintain or expand our existing collaborations, enter into future collaborations to develop applications based on existing or future research agreements or successfully commercialize the deCODE Combined Data Processing system.

We intend to invest in discovery services, database services and healthcare informatics, and expect to report net losses for the next several years. If the costs of these investments are greater than anticipated, or if they take longer to complete, or if losses are incurred from strategic investments, we may incur losses for a longer period of time.

Our failure to successfully develop and market products over the next several years, or to realize product revenues, would have a material adverse effect on our business, financial condition and results of operations. We do not expect to receive royalties or other revenues from commercial sales of products developed using our technologies for at least several years, if at all.

We have made and intend to continue to make strategic equity investments in, and acquisitions of, technologies and businesses that are complementary to our business. As a result, we may record losses or expenses related to our proportionate ownership interest in such long-term equity investments, record charges for the acquisition of in-process technologies, or record charges for the recognition of the impairment in the value of the securities underlying such investments.

Our operating results through December 31, 2001 reflect the expenses incurred in our gene discovery activities, partly offset by the revenues received pursuant to our research and development collaborations with Roche and other recent collaborations in connection with these activities. We will continue these activities, but our operating results will also reflect the substantial costs we expect to incur in building technology and services for the Clinical Genome Miner and commencing the development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system. While we intend to enter into collaborations to help fund and develop the these database services, until we do so there will be no revenue from our database service activities to offset against these costs.

Critical Accounting Policies

The preparation of financial statements in conformity with generally accepted accounting principles requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reported period. On an ongoing basis we evaluate our estimates, which include, among others, those related to collaborative arrangements, property and equipment, income taxes, litigation and other contingencies, materials and supplies, derivatives, intangible assets, and bad debts. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form our basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. The impact and any associated risks related to these and our other accounting policies on our business or operations is discussed throughout Management's Discussion and Analysis of Financial Condition and Results of Operations where such policies affect our reported and expected financial results. For a detailed discussion on the application of these and other accounting policies, please refer to our notes to the Consolidated Financial Statements. There can be no assurance that actual results may not differ from the estimates referred to above.

Collaborations and Revenue. Our collaborative arrangements and the recognition of revenue in such arrangements is the accounting policy most critical to us. We have formed and will continue to form strategic alliances with collaborative partners. These agreements will consist of a variety of disease-focused programs under which we have or will conduct research funded by our partners, form alliances that combine the transfer of intellectual property with collaborative research and/or development in respect of a specific disease, therapeutic or diagnostic approach, and license intellectual property developed as a result of our proprietary research and development.

Currently a substantial portion of our revenues relate to funded research collaborations. Under these arrangements, we perform research in a specific disease area or disease areas aimed at discoveries leading to novel pharmaceutical and diagnostic products. These arrangements generally have fixed terms and renewal periods specific to each agreement. Under these agreements we are entitled to receive committed payments for which we recognize revenue over the term of the associated contract, inclusive of renewal periods to which the company is contractually bound.

In addition, we generally receive contractually agreed milestone payments upon the achievement of specific research and product development milestones. We recognize milestones when acknowledgement of having achieved applicable performance requirements is received. Upon notification of the achievement of the milestone a portion of the milestone payment equal to the percentage of the collaboration completed through that date is recognized, with the remainder recognized as services are performed (generally straight-line) over the remaining estimated term of the collaboration.

We record revenue earned from our research contracts in accordance with the applicable performance requirements and terms of our various contracts; that is, when payment becomes contractually due. Revenue is

generally recorded as contract research costs are incurred, including the percentage of completion basis, for non-refundable up-front fees or upon the achievement of milestones. "Revenue recorded" is a focal metric for us as it is, we believe, an important measure of value we create in a given reporting period. As such, we discuss both revenue recognized under GAAP in our income statement and revenue recorded to our balance sheet in Management's Discussion and Analysis of Financial Condition and Results of Operations and elsewhere in this Annual Report.

Given the nature of some of our contractual obligations, we may invoice in advance of the work being completed or we may be required to recognize revenue under GAAP in advance of being contractually permitted to invoice for our services. Revenue invoiced in advance of satisfying the applicable criteria for revenue recognition remains as deferred revenue in our balance sheet at any reporting date and then is recognized a revenue as we provide the related services. Revenue recognized prior to the time we are contractually entitled to invoice is reported as unbilled costs and fees. In considering whether to recognize unbilled revenues we assess the likelihood of successfully fulfilling our obligations under the arrangement as well as the risk of collection. However, to date there have been no losses recorded with respect to such contracts.

We are also entitled to royalties or profit sharing under the terms of our agreements. Due to the extended time period for the development and commercialisation of a saleable product or therapy, we have not yet received royalties or profit sharing under any of our contracts.

Although we currently depend upon funded research arrangements for a significant portion of our revenue, we are increasing our investment in proprietary research and we will incur the costs of such research. In the near term, this will require us to continue to make significant investments to expand our in-house capabilities for downstream development which we believe will better position us capture the most value to us in our discoveries. As we identify promising discoveries for further development, we may choose to continue the development ourselves into and through clinical trials, regulatory clearances and manufacture, distribution and marketing. In other cases we are or will be working to varying degrees with partners.

This shift from primarily funded research activities to more proprietary research activities will, we believe, increase the potential reward to us from our research. In doing so, we may trade-off and amount of revenue guaranteed for the short-term — i.e., research funding — that would go to support these activities. We have undertaken this shift with the view of increasing our stake in the long-term value of our discoveries.

Other. We consider certain other accounting matters related to property and equipment, foreign exchange transactions, income taxes and litigation and other contingencies to also be important policies for us.

- *Property and Equipment.* Our property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the related assets. We periodically review property and equipment for potential impairments and to assess whether their service lives have been affected by continued technological change and development. For example, in 2001 we reduced the service lives of our gene sequencing machines from five years to four years to better reflect our estimate of the service lives of these machines. The change resulted in an increase to depreciation expense of $1.4 million in 2001. Should we determine that the pace of technological change or other matters dictate that we change the estimated service lives of other of our assets, there will be an impact on depreciation expense from the date of the change. Should we determine that there has been an impairment of our fixed assets, goodwill or other intangible assets we would suffer an increase to our net loss or a reduction of our net income in the period such a determination is made.

- *Foreign exchange transactions.* Our functional currency is the U.S. dollar. However, in light of the significance of our operations outside the United States, an important element of our cost base is or will be denominated in Icelandic krona, including much of our payroll and other operating expenses and some of our recent long-term borrowings. To manage our exposure to fluctuations in exchange rates, we have entered into and will likely continue to enter into derivative instruments to hedge our exposure to such fluctuations.

- *Income Taxes.* The preparation of financial statements requires us to evaluate the positive and negative evidence bearing upon the realizability of our deferred tax assets resulting from deductible operating losses and other items. Due to primarily to our history of operating losses and the expectation that such losses will continue into the foreseeable future, we have concluded that currently there is insufficient positive evidence exists to justify the recognition of our net deferred tax assets in our balance sheet. Although there can be no assurance that losses generated to date will be used to offset future taxable income, an adjustment to the valuation of our current net deferred tax assets in the future would increase income in the period that we made a determination that such an adjustment was appropriate.

  Income tax in Iceland is payable in Icelandic krona. Consequently, the US dollar value of our net operating loss carryforwards and other deferred tax assets and liabilities is subject to fluctuations in exchange rates. Such fluctuations over time may increase or reduce the reported US dollar balance of our deferred tax assets and liabilities, and there would be a corresponding gain or loss reported in our income statement.

- *Litigation and Other Contingencies.* We consider litigation and other claims and potential claims or contingencies in preparing our financial statements under generally accepted accounting principles. We maintain accruals for litigation and other contingencies when we believe a loss to be probable and reasonably estimated. We base our accruals on information available at the time of such determination. Although we are party to litigation and other actual or potential claims, our legal counsel and we are unable to estimate the probability of an unfavourable outcome or estimate any resulting loss. Consequently, we have not included an accrual for such costs in our financial statements. Changes or developments in the relevant action or our strategy in such proceedings could materially affect our results of operations for any particular quarterly or annual period. Since the recognition of a loss is dependent upon factors not completely in the control of management, timing of a charge, if any, is difficult to predict with certainty.

Results of Operations

Our results of operations have fluctuated from period to period and may continue to fluctuate in the future based upon, among other things, the timing and composition of funding under our various collaborative agreements, as well as the progress of our own research and development efforts and how quickly and in what proportion MediChem's capacity is brought to bear on our in-house programs. Results of operations for any period may be unrelated to results of operations for any other period. In addition, historical results should not be viewed as indicative of future operating results. We are subject to risks common to companies in our industry and at our stage of development, including risks inherent in our research and development efforts, reliance upon collaborative partners, development by us or our competitors of new technological innovations, ability to market products or services, dependence on key personnel, dependence on key suppliers, protection of proprietary technology, ability to obtain additional financing, ability to negotiate collaborative arrangements, reliance on the license to create and run the Icelandic Health Sector Database, and compliance with governmental and other regulations. In order for a product to be commercialized based on our research, we and our collaborators must conduct preclinical tests and clinical trials, demonstrate the efficacy and safety of our product candidates, obtain regulatory approvals or clearances and enter into manufacturing, distribution and marketing arrangements, as well as obtain market acceptance. We do not expect to receive revenues or royalties based on therapeutic or diagnostic products for a period of years, if at all.

Revenues. The following is a summary of deferred revenue:

	December 31,		
	1999	2000	2001
Revenue recorded during the year ended	$17,674,818	$23,712,322	$40,292,874
Revenue recognized during the year ended	(16,591,485)	(21,545,656)	(31,550,626)
	1,083,333	2,166,666	8,742,248
Deferred revenue at beginning of year	1,155,000	2,238,333	4,404,999
Deferred revenue at end of year	$ 2,238,333	$ 4,404,999	$13,147,247

Our revenues increased to $31,550,626 for the year-ended December 31, 2001 as compared to $21,545,656 and $16,591,485 for the years ended December 31, 2000 and 1999, respectively. Revenues attributable to our research collaboration agreement with Roche were $25,158,038 for the year ended December 31, 2001 as compared $20,693,333 and $15,776,667 for the years ended December 31, 2000 and 1999, respectively. The $10,004,970 or 46% increase in total revenues from 2000 to 2001 principally results from the recognition of revenue from new milestone achievements under our 1998 research collaboration with Roche but also from the new diagnostics collaboration with Roche and the joint development and commercialization with ABG. The $4,954,171 or 30% increase in revenues from 1999 to 2000 primarily resulted from new milestones having been achieved under the agreement with Roche in 2000.

At December 31, 2001, the total amount of deferred research revenue that will be recognized in future periods aggregated $13,147,247. Revenues recorded increased to $40,292,874 for the year-ended December 31, 2001 as compared to $23,712,322 and $17,674,818 for the years ended December 31, 2000 and 1999, respectively. The $16,580,552 or 70% increase in recorded revenues from 2000 to 2001 is principally attributable to our new diagnostics collaboration with Roche and other recent collaborations, but also results from greater milestone achievements under our 1998 research collaboration with Roche. The $6,037,504 or 34% increase in recorded revenues from 1999 to 2000 is principally attributable to greater milestone achievements under the 1998 research collaboration with Roche.

Research and Development Expenses. Our research and development expenses increased to $71,796,515 for the year-ended December 31, 2001 as compared to $45,742,081 and $33,213,557 for the years ended December 31, 2000 and 1999, respectively. We have continued to expand our research and development operations, including hiring of additional research personnel with the resulting salary and benefits costs, an expansion of our laboratory facilities and equipment acquisitions, and the resulting depreciation, purchase and use of consumables, and our increased research efforts. The $26,054,434 or 57% increase in research and development expenses from 2000 to 2001 is primarily attributable to depreciation on the expanded asset base and increased purchases of consumables in support of, among other things, our new ABI Prism 3700 DNA Analyzers, salaries and contractor services, and the disposal of laboratory equipment. The $12,528,524 or 38% increase in research and development expenses from 1999 to 2000 resulted from depreciation on the expanded asset base and salaries and contractor services and also from license fee costs payable to the Icelandic government, as required by the Icelandic Health Sector Database operating license, that were recorded in the year ended December 31, 2000 but no such costs were recorded in the year ended December 31, 1999 because the license had not yet been issued. We expect to continue to increase research and development spending as we pursue and expand our efforts. We also expect research and development to increase with the establishment of our new subsidiaries, MediChem, Encode, and deCODE Cancer as well as a result of our new diagnostics development contract with Roche, therapeutics development contract with Roche and other recent collaborations.

General and Administrative Expenses. Our general and administrative expenses were $12,402,283 for the year-ended December 31, 2001 as compared to $15,373,223 and $8,220,758 for the years ended December 31, 2000 and 1999, respectively. Without regard to a $1.3 million of non-cash litigation settlement charge in the year ended December 31, 2001, $3.2 million of stock-based contributions in the year ended December 31, 2000, and stock-based compensation and remuneration charges during all periods, general and administrative expense increased approximately $2.2 million or 28% from 2000 to 2001 and $2.8 million or

60% from 1999 to 2000 as a result of added salaries, contractor services and other general and administrative expenses in the continued expansion of our operations. We expect general and administrative expenses will increase as we continue to build our operations, notably with the inclusion and integration of MediChem into the business.

Stock-Based Compensation and Remuneration Expense. Stock-based compensation and remuneration expense decreased to $4,650,739 for the year-ended December 31, 2001 as compared to $8,686,507 and $9,045,865 for the years ended December 31, 2000 and 1999, respectively. With little compensation being attributed to our more recent stock option grants, stock-based compensation and remuneration expense has been decreasing as grants made to employees in earlier years become fully vested. Historical stock-based compensation and remuneration is not necessarily representative of the effects on reported income or loss for future years due to, among other things, the vesting period of the stock options, the value of stock options that have been granted in recent times and the value of additional options that may be granted in future years.

Interest Income. Our interest income was $6,925,135 for the year-ended December 31, 2001 as compared to $8,866,604 and $2,187,695 for the years ended December 31, 2000 and 1999, respectively. The decrease of $1,941,469 or 22% from 2000 to 2001 is attributable to the decline of prevailing interest rates but also from an overall decrease in our cash balance as we continue to use the proceeds of our initial public offering for operations. The increase of $6,678,909 or 305% from 1999 to 2001 resulted from overall higher cash reserves as a result of our initial public offering.

Other non-operating income and expense, net. Our other non-operating income and expense, net increased to a net expense of $2,115,434 for the year-ended December 31, 2001 as compared to $415,459 and $1,133,312 for the years ended December 31, 2000 and 1999, respectively. The increase in net other non-operating expense primarily results from foreign exchange losses in the current periods.

Income Taxes. As of December 31, 2001, we had an accumulated deficit of $158,592,171 and did not owe any Icelandic or U.S. federal income taxes nor did we pay any in the years ended December 31, 1999, 2000 or 2001. Realization of deferred tax assets is dependent on future earnings, if any. As of December 31, 2001, we had net operating losses able to be carried forward for U.S. federal income tax purposes of approximately $4.1 million to offset future taxable income in the United States that expire at various dates through 2021. Also, as of December 31, 2001 our foreign subsidiaries had net operating loss carryforwards of approximately $22.0 million that expire in varying amounts beginning in 2004.

Net Loss and Basic and Diluted Net Loss Per Share. Net loss and basic and diluted net loss per share were $47,838,471 and $1.08 for the year ended December 31, 2001, respectively, as compared to $31,118,503 and $1.63 for the year ended December 31, 2000 and $23,788,447 and $9.65 for the year ended December 31, 2001, respectively. This is an increase of 54% in net loss and a decrease of 34% in basic and diluted net loss per share from 2000 to 2001 and an increase of 31% in net loss and a decrease of 83% in basic and diluted net loss per share from 1999 to 2000. Although net loss has increased in the three years ended December 31, 2001, basic and diluted net loss per share has decreased primarily as a result of the greater number of average shares outstanding as a result of our initial public offering in July 2000.

Pro Forma Basic and Diluted Net Loss Per Share. Pro forma basic and diluted net loss per share is computed for periods prior to our initial public offering as if the preferred shares had converted into common shares immediately upon their issuance. Accordingly, in the calculation of pro forma net loss per share for such periods, net loss has not been increased for the dividends accumulated or discounts on preferred stock amortized during such periods. Basic and diluted net loss per share increased to $1.08 for the year ended December 31, 2001 as compared to pro forma basic and diluted net loss per share of $0.85 and $0.86 for the years ended December 31, 2000 and 1999, respectively.

Liquidity and Capital Resources

We have financed our operations primarily through funding from collaborative agreements and the issuance of equity securities and debt instruments. For the previous three years, we have received cash of approximately $66 million from collaborative research agreements, $183 million from the issuance of common

stock, $76 million from the issuance of preferred stock and warrants, and $44 million from privately placed bonds, bank loans and equipment financing. During 1999, 2000 and 2001 we received total research and development funding of $62 million from Roche. As of December 31, 2001, future funding under terms of our existing agreements is approximately $88 million excluding milestone payments and royalties that we may earn under such collaborations.

Cash and Cash Equivalents. As of December 31, 2001, we had $167,061,132 in cash and cash equivalents, including part of a bridge loan ($14 million) that is restricted as to its use as of December 31, 2001. Available cash is invested in accordance with our investment policy's primary objectives of liquidity, safety of principal and diversity of investments. Our cash is deposited only with financial institutions in Iceland, the United Kingdom and the United States having a high credit standing. This cash is largely invested in U.S. dollar denominated money market and checking accounts and also in Icelandic krona denominated accounts. Inflation has been significant in Iceland during the year ended December 31, 2001 but has not had a material effect on our business.

Operating Activities. Funds from working capital sources provided $8,249,064 of cash for operating activities for year ended December 31, 2001 as compared to a use of funds of $2,928,466 for the year ended December 31, 2000 and $392,927 provided for the year ended December 31, 1999. As a result, although net loss increased $16,719,968 for the year ended December 31, 2001 as compared to December 31, 2000, net cash used in operating activities increased just $5,345,238 to $21,470,233 in the year ended December 31, 2001 as compared to a use of funds of $16,124,995 in the year ended December 31, 2000.

Investing Activities. Our investing activities have consisted of capital expenditures and long-term strategic equity investments in, and acquisitions of, technologies and businesses that are complementary to our business. Purchases of property and equipment during the year ended December 31, 2001 were $47,680,574 as compared to $15,469,623 in the year ended December 31, 2000 and $2,885,644 in the year ended December 31,1999, primarily due to the expansion of our facilities and operations. Particularly, during the year ended December 31, 2001 we expended $23.7 million in respect of the new building to house our operations in the University District of Reykjavik and we paid for the fifty new ABI Prism 3700 DNA Analyzers acquired late in 2000 ($13.1 million). Net cash used in investing activities may in the future fluctuate significantly from period to period due to the timing of our capital expenditures and other investments.

Financing Activities. Net cash of $28,076,941 was provided in financing activities in the year ended December 31, 2001 as compared to $196,865,248 provided in the year ended December 31, 2000 and $19,553,293 in the year ended December 31, 1999. Net cash provided by financing activities in 2000 was largely due to approximately $182 million of net proceeds from our July 2000 initial public offering. Net cash provided by financing activities in 2001 was principally due to the financing of certain equipment and of our new headquarters facility.

In December 2001, we established a bridge loan with an Icelandic financial institution for the purposes of financing the construction of our new headquarters facility. Total borrowing was $27.5 million and carried an annual interest rate equal to a short-term LIBOR rate plus 0.5%. Portions of the bridge loan expired upon settlement in January and March 2002 out of the proceeds of Tier A bonds and the Tier C bonds/Tier D bank loan, respectively, as discussed below. Monies received in respect of the Tier A bonds ($13.5 million) are included in cash and cash equivalents at December 31, 2001 and monies received in respect of the Tier C bonds and the Tier D bank loan ($14.0 million) are included in restricted cash as a result of the contractual terms with the financial institution.

In December 2001, we borrowed $17.8 million from an Icelandic bank for the construction of our new headquarters facility. The borrowing is collateralized by the property and improvements and consists of: privately placed bonds (Tier A) approximately $13.8 million denominated in Icelandic krona and linked to the Icelandic Consumer Price Index that is payable annually beginning December 2002 and bears annual interest of 8.5% that is payable annually beginning December 2002; and, a $4.0 million bank loan (Tier B) — denominated in U.S. dollars that is payable quarterly beginning March 2002 and bears annual interest of three-month LIBOR plus 3.0% that is payable quarterly beginning March 2002. The lender may demand

prepayment of the Tier B bank loan in certain circumstances. The Tier A bonds and the Tier B bank loan were placed in January 2002 and December 2001, respectively.

Concurrently, we entered into a cross-currency swap as an economic hedge against foreign exchange rate fluctuations that may occur on Tier A bonds. As of December 31, 2001 we had this outstanding contract with a face amount of $13.8 million bearing annual interest of three-month LIBOR plus 2.85%.

In March 2002, we borrowed a further $13.8 million from an Icelandic bank for the construction of our new headquarters facility. The borrowing is collateralized by the property and improvements and consists of: privately placed bonds (Tier C) — approximately $7.3 million denominated in Icelandic krona and linked to the Icelandic Consumer Price Index that is payable in March 2007 and bears annual interest of 12.0% that is payable annually beginning March 2003; and, a $6.6 million bank loan (Tier D) — denominated in U.S. dollars that is payable in March 2007 and bears annual interest of three-month LIBOR plus 6.0% that is payable quarterly beginning June 2002. Tier C bonds may be prepaid at each interest payment date and the Tier D bank loan may be prepaid on the anniversary date of the loan starting December 2003.

Concurrently, we entered into a cross-currency swap as an economic hedge against foreign exchange rate fluctuations that may occur on the Tier C bonds. This contract with a face amount of $7.3 million expires in March 2007 and bears annual interest of twelve-month LIBOR plus 6%.

In connection with the Tier C bonds and the Tier D bank loan, we issued a warrant giving the holder the right to purchase a total of 933,800 shares of our common stock at $15.00 per share, as adjusted. The warrants expire in March 2007 and convert to shares of our common stock automatically in the event the market value of a share of our common stock should exceed $24.00 for thirty consecutive days of trading.

Contractual Commitments. Our major outstanding contractual commitments relate to the privately placed bonds and bank loans, equipment lease financings, our license for the Icelandic health sector database, a minimum purchase commitment to ABG and the remaining construction costs with respect to our new headquarters facility. Our contractual commitments as of December 31, 2001 were as follows:

	Payments Due by Period				
	Total	Less than 1 Year	2-3 Years	4-5 Years	Due Thereafter
			(in thousands)		
Long-term debt	$31,500	$ 2,571	$ 5,143	$5,143	$18,643
Capital lease obligations, including interest	16,263	5,533	9,356	786	588
Operating leases	3,922	1,004	1,794	1,017	107
Icelandic health sector database license	6,800	680	1,360	1,360	3,400
Minimum purchase commitment to ABG	16,300	16,300			
New building construction	3,700	3,700			
	$78,485	$29,788	$17,653	$8,306	$22,738

General. We expect cash requirements to continue to increase significantly as we: invest in genotyping, sequencing and bioinformatics capabilities; integrate MediChem into our operations, invest in software and hardware to support the continuing development of the database services; continue to seek access to technologies through investments, research and development alliances, license agreements and/or acquisitions; and continue to make improvements in existing facilities and invest in new facilities.

Based upon our current plans, and taking into consideration the proceeds of the initial public offering and recent debt financings, we believe that our existing resources will be adequate to satisfy our capital needs for several years. Our cash requirements depend on numerous factors, including our ability to obtain new research collaboration agreements, to obtain subscription and collaboration agreements for the database services; expenditures in connection with alliances, license agreements and acquisitions of and investments in complementary technologies and businesses; competing technological and market developments; the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights; the purchase of additional capital equipment, including capital equipment necessary to ensure that our sequencing and

genotyping operations remain competitive; and capital expenditures required to expand our facilities. Changes in our research and development plans or other changes affecting our operating expenses may result in changes in the timing and amount of expenditures of our capital resources.

We will require significant additional capital in the future, which we may seek to raise through further public or private equity offerings, additional debt financing or added collaborations and licensing arrangements. No assurance can be given that additional financing or collaborations and licensing arrangements will be available when needed, or that if available, will be obtained on favorable terms. If adequate funds are not available when needed, we may have to curtail operations or attempt to raise funds on unattractive terms.

Recent Accounting Pronouncements. In July 2001, the FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 eliminates the pooling-of-interests method of accounting for business combinations except for qualifying business combinations that were initiated prior to July 1, 2001. Under SFAS No. 142, goodwill and indefinite lived intangible assets are no longer amortized. With respect to goodwill and intangible assets acquired prior to July 1, 2001, we are required to adopt SFAS No. 142 for fiscal year 2002 and we are currently in the process of evaluating the impact SFAS No. 142 will have on our financial position and results from operations.

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. It requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. We are required to adopt SFAS No. 143 for fiscal year 2003 and we do not believe its adoption will have a significant impact on our financial position or results of operations.

In October 2001, the FASB issued SFAS No. 144 "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of long Lived Assets to Be Disposed Of" and provides a single accounting model for long-lived assets to be disposed of. We are required to adopt SFAS No. 144 for fiscal year 2002 and do not believe its adoption will have a significant impact on our financial position or results of operations.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

The primary objective of our investment activities is to preserve principal while maximizing income we receive from our investments without significantly increasing risk. Some of the securities in our investment portfolio may be subject to market risk. This means that a change in prevailing interest rates may cause the market value of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the market value of our investment will probably decline. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and short-term investments in a variety of securities, including commercial paper, money market funds and government and non-government debt securities. In general, money market funds are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate. As of December 31, 2001, all of our cash and cash equivalents were in money market and checking accounts.

We are exposed to market risks from changes in foreign currency exchange rates, interest rates and investment prices. These changes may adversely affect our operating results and financial condition. We seek to manage these risks through regular operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments. We control and manage foreign exchange risk, interest rate risk, and investment price risk by continually monitoring changes in key economic indicators and market information.

As a consequence of the nature our business and operations our reported financial results and cash flows are exposed to the risks associated with fluctuations in the exchange rates of the U.S. dollar, the Icelandic krona and other world currencies. We continue to monitor our exposure to currency risk but have not yet

purchased instruments to hedge these risks through the use of derivative financial instruments, principally foreign currency forward exchange contracts.

We hold various interest rate sensitive assets and liabilities to manage the liquidity and cash needs of our day-to-day operations. As a result, we are exposed to risks due to changes in interest rates. In order to mitigate risks associated with interest rate sensitive liabilities we use interest rate derivative instruments, such as interest rate swaps, and may in future use other instruments to achieve the desired interest rate maturities and asset/liability structures.

We are exposed to credit (or repayment) risk, as well as market risk from the use of derivative instruments. If the counterparty fails to fulfill its performance obligations under a derivative contract, our credit risk will equal the positive market value in a derivative. Consequently, when the fair market value of a derivative contract is positive, this indicates that the counterparty owes us, thus creating a repayment risk for us. When the fair market value of a derivative contract is negative, we owe the counterparty and therefore, assume no repayment risk.

In order to minimize the credit risk in derivative instruments, we enter into transactions with high quality counterparties such as financial institutions that satisfy our established credit approval criteria. We review the credit ratings of such counterparties on a regular basis.

Item 8. *Financial Statements and Supplementary Data*

The financial statements required to be filed pursuant to this Item 8 are appended to this Annual Report on Form 10-K. A list of the financial statements filed herewith is found at "Index to Financial Statements and Schedules" on page F-1.

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

Not applicable.

PART III

Item 10. *Directors and Executive Officers of the Company*

For information concerning this item, see the information under "Election of Directors," "Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement to be filed with respect to the 2002 Annual Meeting of Stockholders, which information is incorporated herein by reference.

Item 11. *Executive Compensation*

For information concerning this item, see the information under "Executive Compensation" in the Company's Proxy Statement to be filed with respect to the 2002 Annual Meeting of Stockholders, which information is incorporated herein by reference.

Item 12. *Security Ownership of Certain Beneficial Owners and Management*

For information concerning this item, see the information under "Security Ownership of Certain Beneficial Owners and Management" in the Company's Proxy Statement to be filed with respect to the 2002 Annual Meeting of Stockholders, which information is incorporated herein by reference.

Item 13. *Certain Relationships and Related Transactions*

For information concerning this item, see the information under "Certain Relationships and Related Transactions" in the Company's Proxy Statement to be filed with respect to the 2002 Annual Meeting of Stockholders, 2001, which information is incorporated herein by reference.

PART IV

Item 14. *Exhibits, Financial Statement Schedules, and Reports on Form 8-K*

(a) The following documents are included as part of this Annual Report on Form 10-K:

1. Financial Statements:

2. All schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

3. Exhibits:

Exhibit Number	Description
2.1	Agreement and Plan of Merger dated as of January 7, 2002, by and among deCODE genetics, Inc., Saga Acquisition Corp, and MediChem Life Sciences, Inc. (Incorporated by reference to Annex A to the Proxy Statement/Prospectus included in Pre-Effective Amendment No. 1 to deCODE's Registration Statement on Form S-4 (Registration No. 333-81848) filed on February 12, 2002).
3.1	Amended and Restated Certificate of Incorporation, as further amended (Incorporated by reference to Exhibit 3.1 and Exhibit 3.3 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
3.2	Bylaws, as amended (Incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
4.1	Specimen Common Stock Certificate (Incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
4.2	Form of Warrant to Purchase Series A Preferred Stock (Incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
4.3	Form of Warrant to Purchase Series C Preferred Stock (Incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.1	Form of License from The Icelandic Data Protection Commission (now, The Icelandic Data Protection Authority) to Islensk erfoagreining ehf. and its Clinical Collaborators to Use and Access Patient Records and Other Clinical Data Relating to Individuals (Incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.2*	1996 Equity Incentive Plan, as amended (Incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-8 (Registration No. 333-56996) filed on March 14, 2001.

Exhibit Number	Description
10.3*	Form of Non-Statutory Stock Option Agreement, as executed by employees and officers of deCODE genetics, Inc. who received non-statutory stock options (Incorporated by reference to Exhibit 10.3 to the Company's Annual Report on Form 10-K filed March 23, 2001).
10.4*	Form of Employee Proprietary Information and Inventions Agreement (Incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.5	Agreement on the Collaboration of Friorik Skulason (FS) and Islensk erfoagreining ehf. (IE) on the Creation of a Database of Icelandic Genealogy, dated April 15, 1997 (Incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.6*	Consultancy Contract between deCODE genetics, Inc. and Vane Associates, dated December 1, 1997, together with Nondisclosure Agreement executed by Vane Associates as of December 1, 1997, as amended (Incorporated by reference to Exhibit 10.7 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.7*	Indemnity Agreement between deCODE genetics, Inc. and Sir John Vane, dated December 1, 1997 (Incorporated by reference to Exhibit 10.8 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.8*	Amended and Restated Non-Recourse Promissory Note between deCODE genetics, Inc. and Hannes Smarason, dated March 24, 1999 (Incorporated by reference to Exhibit 10.10 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.9†	Research Collaboration and Cross-license Agreement among F. Hoffman-La Roche Ltd, Hoffman-La Roche Inc. and deCODE genetics, Inc., dated February 1, 1998 (Incorporated by reference to Exhibit 10.11 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.10	Amended and Restated Investor rights Agreement of deCODE genetics, Inc., dated as of February 2, 1998, as further amended and restated (Incorporated by reference to Exhibit 10.12 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.11*	Employment Agreement between Islensk erfoagreining ehf. and Kristjan Erlendsson, dated September 4, 1998 (Incorporated by reference to Exhibit 10.21 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.12	Co-operation Agreement between Reykjavik Hospital and Islensk erfoagreining ehf., dated November 4, 1998 (Incorporated by reference to Exhibit 10.22 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.13	Co-operation Agreement between the Iceland State Hospital and Islensk erfoagreining ehf., dated December 15, 1998 (Incorporated by reference to Exhibit 10.24 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.14*	Non-Recourse Promissory Note between deCODE genetics, Inc. and Hannes Smarason, dated September 15, 1999 (Incorporated by reference to Exhibit 10.35 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).

Exhibit Number	Description
10.15	Research Collaboration Agreement by and between Islenskar hveraorverur ehf. (now Prokaria, ehf.) and Islensk erfoagreining ehf., dated December 28, 1999 (Incorporated by reference to Exhibit 10.38 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.16	Agreement between The Minister for Health and Social Security and Islensk erfoagreining ehf. relating to the Issue of an Operating License for the Creation and Operation of a Health Sector Database, dated January 21, 2000 (Incorporated by reference to Exhibit 10.39 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.17	Operating License issued to Islensk erfoagreining ehf., for the Creation and Operation of a Health Sector Database, dated January 22, 2000 (Incorporated by reference to Exhibit 10.40 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.18	Agreement between The University of Iceland, Islensk erfoagreining ehf., and the City of Reykjavik, dated February 15, 2000 (Incorporated by reference to Exhibit 10.42 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.19*	Form of Employee Confidentiality, Invention Assignment and Non-Compete Agreement executed by certain officers (Incorporated by reference to Exhibit 10.44 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.20	Series C Preferred Stock and Warrant Purchase Agreement between Roche Finance Ltd and deCODE genetics, Inc., dated as of February 1, 1998 (Incorporated by reference to Exhibit 10.45 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.21†	Strategic Alliance Agreement between Partners HealthCare System, Inc., The General Hospital Corporation, d.b.a. Massachusetts General Hospital, The Brigham and Women's Hospital, Inc. and deCODE genetics Ltd. (Islensk erfoagreining), dated May 11, 2000 (Incorporated by reference to Exhibit 10.48 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.22†	Crosswalk Development Agreement between Partners HealthCare System, Inc., The General Hospital Corporation, d.b.a. Massachusetts General Hospital, The Brigham and Women's Hospital, Inc. and deCODE genetics Ltd. (Islensk erfoagreining), dated May 11, 2000 (Incorporated by reference to Exhibit 10.49 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.23*	Employment Agreement between Islensk erfoagreining ehf. and Hakon Guobjartson, dated May 5, 1999 (Incorporated by reference to Exhibit 10.52 to the Company's Annual Report on Form 10K filed March 23, 2001).
10.24	Form of Contract on the Processing of Clinical Data and their Transfer to a Health Sector Database between several Health Institutions and Islensk erfoagreining ehf. (Incorporated by reference to Exhibit 10.58 to the Company's Annual Report on Form 10-K filed March 23, 2001).
10.25*	Amended and Restated Promissory Note, dated January 1, 2001, by Hannes Smarason and the Company (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2001).

Exhibit Number	Description
10.26	Work Contract dated March 15, 2001 between Islensk erfdagreining ehf. and Eykt ehf., an Icelandic civil-works engineer, on concrete casting, external finish work, conduits and ventilation systems, electrical and specialized systems in Sturlugata 8, Reykjavik (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2001).
10.27*	Employment and Amended and Restated Employee Confidentiality, Invention Assignment and Non-Compete Agreement between deCODE genetics, Inc. and Mark Gurney, dated as of August 21, 2000 and signed on August 13, 2001 (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.28*	Employment and Employee Confidentiality, Invention Assignment and Non-Compete Agreement between deCODE genetics, Inc. and Lance Thibault, dated February 1, 2001 and signed on June 20, 2001 (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.29*	Employment Agreement between deCODE genetics, Inc. and Michael W. Young dated June 4, 2001 (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.30†	Collaboration Agreement between Genmab A/S, Medarex, Inc. and deCODE genetics, ehf. dated June 12, 2001 (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.31†	Contract Services Agreement Re. Gene Expression Profiles In Rheumatoid Arthritis between Encode ehf. and Genmab A/S dated June 12, 2001 (Incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.32†	Collaboration and Cross-License Agreement Re. Diagnostics between F. Hoffman-La Roche Ltd. AG and deCODE genetics, ehf dated as of June 29, 2001 (Incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.33†	Joint Development and Commercialization Agreement between deCODE genetics, ehf. and PE Corporation (NY) through its Applied Biosystem Group dated July 16, 2001 (Incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.34†	Reagent Supply Agreement between deCODE genetics, ehf and PE Corporation (NY) through its Applied Biosystem Group dated July 16, 2001 (Incorporated by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.35†	Pharmacogenomics Collaboration and License Agreement between Encode ehf. and Affymetrix, Inc. dated July 16, 2001 (Incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.36	Contract on Financial Leasing between Lysing hf, and Islensk erfoagreining ehf., dated as of December 13, 2001.
10.37	Land Lease Agreement between the City of Reykjavik and Islensk erfoagreining ehf., dated as of December 21, 2001.
10.38	Agreement on the Details of the Arrangement of Encumbrances in the Site Agreement between the University of Iceland and Islensk erfoagreining ehf., dated as of December 21, 2001.
10.39	Annex to the Agreement on the Details of the Arrangement of Encumbrances in the Site Agreement between the University of Iceland and Islensk erfoagreining ehf., dated as of January 4, 2002.
10.40#	Loan Agreement between Sturlugata 8, ehf. and Islandsbanki-FBA, hf., dated as of December 21, 2001.

Exhibit Number	Description
10.41#	Loan Agreement between Sturlugata 8, ehf. and Islandsbanki-FBA, hf., dated as of December 27, 2001.
10.42	Currency Exchange Agreement between Sturlugata 8 ehf. and Islandsbanki-FBA hf., dated as of December 21, 2001.
10.43#	Agreement on the Sale and Listing of Bonds Issued by Sturlugata 8 ehf. between Islandsbanki-FBA, hf. and Islensk erfoagreining ehf., dated as of December 21,2001.
10.44	General Bond with Consumer Price Index between Islandsbanki-FBA, hf. and Sturlugata 8 ehf., dated as of December 21, 2001.
10.45	General Bond with Consumer Price Index between Islandsbanki-FBA, hf. and Sturlugata 8 ehf., dated as of December 21, 2001.
10.46#	Research Collaboration and Cross-License Agreement among F.Hoffman-La Roche Ltd and Hoffman-La Roche Inc. and deCODE genetics, ehf. (Islensk erfoagreining), effective as of February 1, 2002.
10.47	Loan Agreement between Kristjan Erlendsson and Islensk erfoagreining ehf., dated as of October 11, 2001.
21.1	Subsidiaries of deCODE genetics, Inc.
23.1	Consent of PricewaterhouseCoopers ehf., independent public accountants.
99.1	Government Regulation on a Health Sector Database, dated January 22, 2000 (Incorporated by reference to Exhibit 99.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
99.2	Act. No. 139/1998 on a Health Sector Database (Incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).

† Certain portions of this exhibit have been granted confidential treatment by the Commission. The omitted portions have been separately filed with the Commission.

* Constitutes a management contract or compensatory plan or arrangement.

A request for confidential treatment had been submitted with respect to this exhibit. The copy which was filed as an exhibit omits the information subject to the request for confidential treatment.

(b) Reports on Form 8-K

We did not file any reports on Form 8-K during the quarter ended December 31, 2001.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

deCODE genetics, Inc.

By:
/s/DR. KÁRI STEFÁNSSON MARCH 27, 2002
Dr. Kári Stefánsson, President and
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ DR. KÁRI STEFÁNSSON Dr. Kari Stefánsson	Chairman, President, Chief Executive Officer (principal executive officer) and Director	March 27, 2002
/s/ LANCE THIBAULT Lance Thibault	Chief Financial Officer and Treasurer (principal financial officer and principal accounting officer)	March 27, 2002
/s/ JEAN-FRANCOIS FORMELA Jean-Francois Formela	Director	March 27, 2002
/s/ TERRANCE MCGUIRE Terrance McGuire	Director	March 27, 2002
/s/ SIR JOHN VANE Sir John Vane	Director	March 27, 2002

deCODE genetics, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and stockholders of deCODE genetics, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows present fairly, in all material respects, the consolidated financial position of deCODE genetics, Inc. (deCODE) at December 31, 2000 and 2001 and the consolidated results of its operations and its consolidated cash flows for each of the three years in the period ended December 31, 2001, in conformity with generally accepted accounting principles in the United States. These financial statements are the responsibility of deCODE's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards in the United States, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

PricewaterhouseCoopers ehf.
Reykjavik, Iceland
March 8, 2002

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF OPERATIONS

	For the years ended December 31,		
	1999	2000	2001
Revenue	$ 16,591,485	$ 21,545,656	$ 31,550,626
Operating expenses			
Research and development	33,213,557	45,742,081	71,796,515
General and administrative	8,220,758	15,373,223	12,402,283
Total operating expenses	41,434,315	61,115,304	84,198,798
Operating loss	(24,842,830)	(39,569,648)	(52,648,172)
Interest income	2,187,695	8,866,604	6,925,135
Other non-operating income and (expense), net	(1,133,312)	(415,459)	(2,115,434)
Taxes	0	0	0
Net loss	(23,788,447)	(31,118,503)	(47,838,471)
Accrued dividends and amortized discount on preferred stock	(7,542,787)	(7,540,879)	0
Premium on repurchase of preferred stock	(30,887,044)	0	0
Net loss available to common stockholders	$(62,218,278)	$(38,659,382)	$(47,838,471)
Basic and diluted net loss per share	$ (9.65)	$ (1.63)	$ (1.08)
Shares used in computing basic and diluted net loss per share	6,446,055	23,671,113	44,289,911

The accompanying notes are an integral part of the Consolidated Financial Statements.

deCODE genetics, Inc.

CONSOLIDATED BALANCE SHEETS

	December 31, 2000	December 31, 2001
Assets		
Current assets:		
Cash and cash equivalents	$ 194,144,688	$ 153,061,132
Restricted cash	0	14,000,000
Receivables and other current assets	14,482,336	26,043,029
Total current assets	208,627,024	193,104,161
Property and equipment, net	37,100,690	61,207,537
Other long-term assets and deferred charges	3,172,853	2,047,471
Total assets	$ 248,900,567	$ 256,359,169
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable and accrued expenses	$ 22,957,481	$ 21,164,576
Current portion of capital lease obligations	1,749,807	4,855,420
Current portion of long-term debt	0	2,571,429
Deferred research revenue	4,404,999	6,147,247
Total current liabilities	29,112,287	34,738,672
Capital lease obligations, net of current portion	2,801,853	9,922,318
Long-term debt, net of current portion	0	28,928,571
Deferred research revenue	0	7,000,000
Other long-term liabilities	717,261	427,675
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value; Authorized: 6,716,666 shares; Issued and outstanding: none	0	0
Common stock, $0.001 par value; Authorized: 60,000,000 shares; Issued and outstanding: 45,041,969 at December 31, 2000; and 45,328,227 and 45,257,386, respectively, at December 31, 2001	45,042	45,328
Additional paid-in capital	350,398,909	351,960,182
Notes receivable	(11,850,953)	(10,788,635)
Deferred compensation	(11,568,776)	(6,173,592)
Accumulated deficit	(110,753,700)	(158,592,171)
Accumulated other comprehensive income	(1,356)	52,596
Treasury stock	0	(1,161,775)
Total stockholders' equity	216,269,166	175,341,933
Total liabilities and stockholders' equity	$ 248,900,567	$ 256,359,169

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)

	Shares									
	Common Stock	Par Value	Additional Paid-in Capital	Notes Receivable	Deferred Compensation	Dividends Accreted on Redeemable, Convertible Preferred Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury stock	Total Stockholders' Equity (Deficit)
Balance at December 31, 1998	9,381,500	$ 9,382	$ 17,842,611	$ (4,033,347)	$ (8,549,906)	$(3,215,628)	$ (20,275,235)	$ 0	$ 0	$(18,222,123)
Issuance of common stock	68,000	68	1,449,012							1,449,080
Forfeiture of unvested Founder stock and unvested common stock issued upon early exercise of stock options	(359,655)			219,111	513,424				(732,895)	(360)
Exchange of common stock for Series B preferred stock	(333,333)		750,000						(4,500,000)	(3,750,000)
Issuance of common stock upon exercise of stock options	847,500	154	663,392	(5,895,594)					5,232,895	847
Deferred compensation arising from stock options			12,941,712		(12,941,712)					0
Cancellation of stock options previously giving rise to deferred compensation			(115,072)		115,072					0
Amortization of deferred compensation					8,313,365					8,313,365
Payments of notes receivable				112,000						112,000
Premium on repurchase of preferred stock						582,514	(31,469,558)			(30,887,044)
Beneficial conversion feature of issuance of Series C preferred stock			1,540,920							1,540,920
Accretion of dividends and amortization of discount on preferred stock						(5,751,837)	(1,790,950)			(7,542,787)
Comprehensive income (loss):										
Net loss for the period							(23,788,447)			(23,788,447)
Other comprehensive income (loss):										
Foreign currency translation								2,411		2,411
Total comprehensive income (loss):										(23,786,036)
Balance at December 31, 1999	9,604,012	$ 9,604	$ 35,072,575	$ (9,597,830)	$(12,549,757)	$(8,384,951)	$ (77,324,190)	$ 2,411	$ 0	$(72,772,138)

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) — (Continued)

	Shares		Additional			Dividends Accreted on Redeemable, Convertible		Accumulated Other		Total
	Common Stock	Par Value	Paid-in Capital	Notes Receivable	Deferred Compensation	Preferred Stock	Accumulated Deficit	Comprehensive Income (Loss)	Treasury stock	Stockholders' Equity (Deficit)
Balance at December 31,1999	9,604,012	$ 9,604	$ 35,072,575	$ (9,597,830)	$(12,549,757)	$(8,384,951)	$ (77,324,190)	$ 2,411	$ 0	$(72,772,138)
Common stock issued upon initial public offering, net of issuance cost	11,040,000	11,040	181,940,726							181,951,766
Issuance of common stock upon exercise of warrants	306,943	307	(307)							0
Other issuances of common stock	165,910	166	3,670,002		(665,700)					3,004,468
Redeemable, convertible preferred stock converted to to common stock	23,737,081	23,737	118,735,067			13,614,823				132,373,627
Beneficial conversion feature of issuance of Series C preferred stock			2,040,880							2,040,880
Accretion of dividends and amortization of discount on preferred stock						(5,229,872)	(2,311,007)			(7,540,879)
Forfeiture of unvested common stock issued upon early exercise of stock options	(26,977)			109,325	185,676				(295,028)	(27)
Issuance of common stock upon exercise of stock options	215,000	188	2,130,417	(2,362,448)					295,028	63,185
Deferred compensation arising from stock options			6,809,549		(6,809,549)					0
Amortization of deferred compensation					8,270,554					8,270,554
Comprehensive income (loss):										
Net loss for the period							(31,118,503)			(31,118,503)
Other comprehensive income (loss):										
Foreign currency translation								(3,767)		(3,767)
Total comprehensive income (loss):										(31,122,270)
Balance at December 31, 2000	45,041,969	45,042	350,398,909	(11,850,953)	(11,568,776)	0	(110,753,700)	(1,356)	0	216,269,166
Issuance of common stock upon exercise of warrants	94,444	94	(94)							0
Other issuances of common stock	191,814	192	1,555,117							1,555,309
Forfeiture of unvested common stock issued upon early exercise of stock options	(70,841)			409,509	750,695				(1,161,775)	(1,571)
Payment of notes				652,809						652,809
Deferred compensation arising from stock options			6,250		(6,250)					0
Amortization of deferred compensation					4,650,739					4,650,739
Comprehensive income (loss):										
Net loss for the period							(47,838,471)			(47,838,471)
Other comprehensive income (loss):										
Foreign currency translation								53,952		53,952
Total comprehensive income (loss)										(47,784,519)
Balance at December 31, 2001	45,257,386	$45,328	$351,960,182	$(10,788,635)	$ (6,173,592)	$ 0	$(158,592,171)	$ 52,596	$ (1,161,775)	$175,341,933

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the years ended December 31,		
	1999	2000	2001
Cash flows from operating activities:			
Net loss	$(23,788,447)	$(31,118,503)	$(47,838,471)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	3,374,039	5,203,715	10,028,378
Amortization of deferred stock compensation	8,313,365	8,270,554	4,650,739
Other stock-based remuneration and stock contributions	732,500	3,609,930	52,500
Loss on disposal of equipment	0	0	1,607,583
Litigation settlement	0	0	1,292,642
Equity in net loss of affiliate	486,366	738,359	461,948
Accrued interest on receivable from share issuance	(893,836)	893,836	0
Equipment received for services provided	(414,000)	0	0
Other	0	(794,420)	25,384
Changes in operating assets and liabilities:			
Receivables and other current assets	(1,748,007)	(11,671,110)	(6,560,693)
Accounts payable and accrued expenses	906,977	6,315,817	11,357,095
Deferred research revenue	1,083,333	2,166,666	8,742,248
Unbilled research revenue	0	0	(5,000,000)
Other long-term liabilities	150,624	260,161	(289,586)
Net cash used in operating activities	(11,797,086)	(16,124,995)	(21,470,233)
Cash flows from investing activities:			
Purchase of property and equipment	(2,885,644)	(15,469,623)	(47,680,574)
Investment in affiliated company, net	(104,324)	(446,345)	0
Acquisitions and investments, net	3,581	(350,471)	0
Other	0	(174,790)	(9,690)
Net cash used in investing activities	(2,986,387)	(16,441,229)	(47,690,264)
Cash flows from financing activities:			
Issuance of preferred stock and warrants	41,658,444	34,534,276	0
Issuance of common stock, net	848	182,014,951	0
Repurchase of preferred stock	(20,310,555)	(17,467,077)	0
Repayment of notes receivable for common stock	112,000	0	652,809
Forfeiture of common stock	(360)	(27)	(1,571)
Proceeds from financing of facility	0	0	17,199,625
Proceeds from equipment sale-leaseback financing			12,000,000
Installment payments on capital lease obligations	(1,907,084)	(2,216,875)	(1,773,922)
Net cash provided by financing activities	19,553,293	196,865,248	28,076,941
Net increase (decrease) in cash	4,769,820	164,299,024	(41,083,556)
Cash and cash equivalents at beginning of period	25,075,844	29,845,664	194,144,688
Cash and cash equivalents at end of period	$ 29,845,664	$194,144,688	$153,061,132
Supplemental cash flow information:			
Cash paid for interest	$ 574,226	$ 495,143	$ 388,005
Supplemental schedule of non-cash transactions:			
Series A preferred stock issued in settlement of current liability	150,000	0	0
Receivable from share issuance	33,143,836	0	0
Payable to preferred shareholders	17,467,077	0	0
Series B Preferred Stock issued in exchange for shares in affiliate	779,064	0	0
Common stock issued in exchange for shares in subsidiary	1,449,080	2,394,523	210,000
Supplies received in exchange for services provided	239,600	0	0
Payable for laboratory equipment	$ 0	$ 13,150,000	$ 0

The accompanying notes are an integral part of the consolidated financial statements.

The Company

References in this report to deCODE and "we" and "us" refer to deCODE genetics, Inc., a Delaware corporation, and deCODE genetics, Inc.'s wholly owned subsidiary, Íslensk erfðagreining ehf., an Icelandic company registered in Reykjavik, and its subsidiaries Encode ehf., deCODE Cancer ehf. and Vetrargardurinn ehf.

deCODE is a genomics and health informatics company which applies and develops modern informatics to collect and analyze data about the Icelandic population in order to develop products and services for the healthcare industry. Founded in 1996, deCODE conducts its operations and has its facilities in Reykjavik, Iceland, with business offices also in Massachusetts.

Basis of Presentation

These financial statements are reported in United States dollars, deCODE's functional currency, and prepared in accordance with generally accepted accounting principles in the United States.

Principles of Consolidation

The consolidated financial statements include the accounts and operations of deCODE genetics, Inc. and its wholly owned subsidiary, Íslensk erfðagreining ehf., including its subsidiaries. deCODE conducts its operations through Islensk erfðagreining ehf. No dividends have been paid by this subsidiary. All significant intercompany accounts and transactions are eliminated upon consolidation. Investments in which deCODE has significant influence, but does not control, are accounted for using the equity method.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates.

Uncertainties

deCODE is subject to risks common to companies in the biotechnology industry including, but not limited to, development by deCODE or its competitors of new technological innovations, ability to market products or services, dependence on key personnel, dependence on key suppliers, protection of proprietary technology, ability to obtain additional financing, ability to negotiate collaborative arrangements, reliance on the license to create and run the Icelandic Health Sector Database, and compliance with governmental and other regulations.

Concentration of Risk

deCODE has no significant off-balance sheet concentration of credit risk such as foreign exchange contracts, option contracts or other foreign hedging arrangements. Financial instruments that potentially subject deCODE to concentrations of credit risk consist principally of temporary cash investments. deCODE's cash is deposited only with financial institutions in Iceland, United Kingdom and the United States having a high credit standing. Deposits with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and, therefore, bear minimal risk.

Fair Value of Financial Instruments

The fair value of short-term financial instruments, including cash and cash equivalents, restricted cash, receivables, certain other current assets, trade accounts payable, certain accrued liabilities, and other current liabilities approximates their carrying amount in the financial statements due mainly to the short maturity of such instruments. Based on borrowing rates currently available to deCODE for loans and capital lease obligations with similar terms, the carrying value of its debt obligations approximates fair value.

Cash Equivalents

deCODE considers all highly liquid investments with a maturity of ninety days or less at the date of purchase to be cash equivalents.

Materials & Supplies

Materials and supplies are valued at the lower of cost (first-in, first-out method) or market.

Property and Equipment

Property and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets of generally fifty years for buildings, three to four years for laboratory equipment, five years for furniture and fixtures, and three to five years for other equipment. Maintenance and repairs are expensed as incurred, while major betterments are capitalized. When assets are retired or otherwise disposed of, the assets and related accumulated depreciation or amortization are eliminated from the accounts and any resulting gain or loss is reflected in the statement of operations.

Impairment of Long-Lived Assets

deCODE reviews long-lived assets for potential impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets held for use is measured by comparing the carrying amount of an asset to the undiscounted estimated future cash flows expected to be generated by the asset. In estimating expected future cash flows for determining whether an asset is impaired, assets are grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. If any such assets are considered to be impaired, the impairment to be recognized is the amount by which the carrying amount of the assets exceeds its fair value. deCODE has made no adjustments to the carrying values of long-lived assets during the years ended December 31, 1999, 2000 or 2001.

Capital Leases

Assets acquired under capital lease agreements are recorded at the present value of the future minimum rental payments using interest rates appropriate at the inception of the lease. Property and equipment subject to capital lease agreements are amortized over the shorter of the life of the lease or the estimated useful life of the asset unless the lease transfers ownership or contains a bargain purchase option, in which case the leased asset is amortized over the estimated useful life of such asset.

Finance Costs Related to Long-Term Debt

Costs associated with obtaining long-term debt are deferred and amortized over the term of the debt.

Derivative Financial Instruments

Statement of Financial Accounting Standards No. 133 "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133) as amended by SFAS 137 and SFAS 138 and as interpreted by the Derivatives Implementation Group, was adopted by deCODE effective as of January 1, 2001. SFAS 133 established accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts (collectively referred to as derivatives) and for hedging activities. SFAS 133 requires that an entity recognize all derivatives as either assets or liabilities in the consolidated balance sheet and measure those instruments at fair value. SFAS 133 prescribes requirements for designation and documentation of hedging relationships and ongoing assessments of effectiveness in order to qualify for hedge accounting.

deCODE evaluates contracts for embedded derivatives and considers whether any embedded derivatives have to be bifurcated, or separated, from the host contracts in accordance with SFAS 133 requirements. Embedded derivatives may have terms that are not clearly and closely related to the terms of the host contract in which they are included. If embedded derivatives exist and are not clearly and closely related to the host contract, they are accounted for separately from the host contract as derivatives, with changes in their fair value recorded in current earnings.

deCODE did not hold any derivative instruments or contracts that contained embedded derivatives as of January 1, 2001, the date of adoption of SFAS 133. Further, deCODE did not designate any derivative instruments as being part of a qualified hedging relationship under SFAS 133 at December 31, 2001.

Revenue

Revenues consist of fees earned from research and development collaboration agreements and are recorded and recognized in accordance with the applicable performance requirements and terms of the respective contracts either as contract research costs are incurred, including the percentage of completion basis, or upon the achievement of certain milestones. Research revenues are recorded and recognized on an accrual basis as services are provided and are recorded with reference to contracted rates. Such funding payments are not refundable in the event that the related efforts are not successful. Non-refundable up-front payments are deferred and recognized on a straight-line basis over the research term. Milestone payments are recorded when acknowledgement of having achieved applicable performance requirements is received and are recognized as revenue on a retrospective basis over the contractual term of the underlying agreement. Accordingly, upon achievement of the milestone a portion of the milestone payment equal to the percentage of the collaboration completed through that date is recognized, with the remainder recognized as services are performed (generally straight-line) over the remaining estimated term of the collaboration. Unbilled costs and fees represent revenue recognized prior to billing. Contractual payments due to deCODE are recorded as deferred revenue until earned.

The following is a summary of deferred revenue:

	December 31,		
	1999	2000	2001
Revenue recorded during the year ended	$ 17,674,818	$ 23,712,322	$ 40,292,874
Revenue recognized during the year ended	(16,591,485)	(21,545,656)	(31,550,626)
	1,083,333	2,166,666	8,742,248
Deferred revenue at beginning of year	1,155,000	2,238,333	4,404,999
Deferred revenue at end of year	$ 2,238,333	$ 4,404,999	$ 13,147,247

Research and Development and Software Development Costs

All research and development costs, including costs associated with the development of computer software to be used in deCODE's research and development activities, are expensed as incurred.

Patent Costs

Patent application costs are charged to expense as incurred.

Stock-Based Compensation

deCODE follows Statement of Financial Accounting Standards No. 123 (SFAS No. 123), Accounting for Stock-Based Compensation. The provisions of SFAS No. 123 allow companies to either expense the estimated fair value of stock options granted to employees or to follow the intrinsic value method set forth in Accounting Principles Board Opinion No. 25 (APB No. 25), Accounting for Stock Issued to Employees, and disclose the pro forma effects on net loss and net loss per share had the estimated fair value of the options granted to employees been expensed. SFAS No. 123 requires companies to expense the estimated fair value of stock options granted to non-employees. deCODE has elected to follow the intrinsic value method in accounting for its employee stock options and follows the fair value method in accounting for its non-employee stock options.

Foreign Currency Translation

deCODE's functional currency is the U.S. dollar. Íslensk erfðagreining also consolidates its subsidiaries, several of which use the local currency, the Icelandic krona, as the functional currency. For these entities, the assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Income and expense items are translated at the average exchange rates prevailing during the period. Gains and losses from translation are included in accumulated other comprehensive income.

Foreign currency transaction gains and losses are reported according to the exchange rates prevailing on the transaction date and are included in the consolidated statements of operations. Net transaction gains (losses) were $(97,798), $1,488,599 and $(1,264,196) in 1999, 2000 and 2001, respectively.

Income Taxes

deCODE accounts for income taxes using the liability method, which requires the recognition of deferred tax assets or liabilities for the temporary differences between the financial reporting and tax bases of deCODE's assets and liabilities and for tax loss carryforwards at enacted statutory tax rates in effect for the years in which the differences are expected to reverse. In addition, valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Segment Information

Management is organizing deCODE's main business units along three avenues of commercialization: discovery services, database services, and healthcare informatics. Discovery services include the development and applications of proprietary bioinformatics tools to discover disease-related genes and associated drug targets, the development and marketing of DNA-based diagnostics for major diseases, and pharmacogenomic services. deCODE intends that this business unit will also ultimately encompass therapeutic products. The database services business unit involves the commercialization of the Clinical Genome Miner, containing tools to discover or validate disease linked genes based on non-personally identifiable genotypic and phenotypic data and deCODE's genealogical database. The healthcare informatics business unit will seek to commercialize bioinformatics tools developed in deCODE's gene and drug target discovery and database efforts. Products of the healthcare informatics business unit are expected to include medical decision-support systems designed to assist the decision making process in the delivery of healthcare and privacy protection products derived from deCODE's expertise in encryption tools for complex and sensitive medical and genetic data.

To date deCODE's efforts have largely been directed toward discovery services and financial information available for evaluation by senior management and members of the Board in deciding how to allocate resources and assess performance is that of the business as a whole. For these reasons, deCODE has a single reportable segment. All of deCODE's revenue from inception have been generated in Iceland, and all of deCODE's significant long-lived assets are located in Iceland. Roche accounted for 95%, 96% and 80% of consolidated revenue in the years ended December 31, 1999, 2000 and 2001, respectively.

Computation of Net Loss per Common Share

Basic net loss per share is computed using net loss available to common stockholders and the weighted-average number of common shares outstanding. The weighted-average number of common shares outstanding during the period is the number of shares determined by relating the portion of time within a reporting period that common shares have been outstanding to the total time in that period. Net loss available to common stockholders consists of the following:

	For the Year Ended December 31,		
	1999	2000	2001
Net loss	$23,788,447	$31,118,503	$47,838,471
Accrued dividends on Series A, Series B and Series C preferred stock	5,751,837	5,229,872	0
Amortized discount on Series A and Series C preferred stock	1,790,950	2,311,007	0
Accrued dividends and amortized discount on preferred stock	7,542,787	7,540,879	0
Premium on repurchase of preferred stock	30,887,044	0	0
Net loss available to common stockholders	$62,218,278	$38,659,382	$47,838,471

Diluted net loss per share is computed using the weighted-average number of common shares outstanding during the period, plus the dilutive effect of potential common shares. Diluted net loss per share does not differ from basic net loss per share in all periods presented as potential common shares are antidilutive for all such

periods and are, therefore, excluded from the calculation. Potential common shares excluded from the calculation of diluted net loss per share as their inclusion would have been antidilutive were:

	For the Year Ended December 31,		
	1999	2000	2001
	(shares)	(shares)	(shares)
Preferred stock convertible into shares of common stock	22,969,544	0	0
Warrants to purchase shares of common stock	2,110,037	1,167,500	1,067,500
Options to purchase shares of common stock	45,000	823,000	1,919,604

Comprehensive Income

Comprehensive income generally represents all changes in stockholders' equity except those resulting from investments or contributions by stockholders. Amounts reported in other comprehensive income include foreign currency translation adjustments and gains and losses on derivative financial instruments designated and effective as part of a foreign cash-flow hedge transaction.

Recent Accounting Pronouncements

In July 2001, the FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 eliminates the pooling-of-interests method of accounting for business combinations except for qualifying business combinations that were initiated prior to July 1, 2001. Under SFAS No. 142, goodwill and indefinite lived intangible assets are no longer amortized but are reviewed annually for impairment. Separable intangible assets that are not deemed to have an indefinite life will continue to be amortized over their useful lives. With respect to goodwill and intangible assets acquired prior to July 1, 2001, deCODE is required to adopt SFAS No. 142 for fiscal year 2002. deCODE is currently in the process of evaluating the impact SFAS No. 142 will have on its financial position and results of operations.

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations". SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. It requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. deCODE is required to adopt SFAS No. 143 for fiscal year 2003 and does not believe its adoption will have a significant impact on its financial position or results of operations.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" and provides a single accounting model for long-lived assets to be disposed of. deCODE is required to adopt SFAS No. 144 for fiscal year 2002 and does not believe its adoption will have a significant impact on its financial position or results of operations.

Receivables and other current assets

Receivables and other current assets consist of the following:

	December 31,	
	2000	2001
Receivables	$ 8,000,000	$ 9,145,182
Receivables, related party	1,347,946	379,690
Unbilled costs and fees	0	2,302,086
Unbilled and deferred revenue	0	5,000,000
Materials and supplies	0	6,024,351
Value added taxes	3,662,206	1,447,771
Other current assets	1,472,184	1,743,949
Total	$14,482,336	$26,043,029

Investments and other

Gagnalind hf. and eMR hf.

In January and February 1999, deCODE acquired equity interests totalling 25.2% in Gagnalind hf. (Gagnalind) in exchange for $254,444 in cash and 70,824 shares of Series B preferred stock. On the date of issuance, these Series B shares had an aggregate estimated value of $779,064, or $11.00 per share. In November 1999, deCODE entered into an agreement in which it acquired common shares of eMR hf. (eMR), an Icelandic software company, in an integrated series of transactions as follows:

- On November 19, 1999, deCODE issued 68,000 shares of common stock to two Icelandic companies in exchange for an additional 30.4% equity interest in Gagnalind. On this date, these common shares had an aggregate estimated value of $1,449,080, or $21.31 per share.
- In March and April 2000, deCODE acquired 29,925,000 common shares (35.0%) in eMR in exchange for $341,436 in cash and 31,169,112 shares (55.6%) in Gagnalind.
- On April 19, 2000, deCODE sold 12,825,000 common shares (15.0%) in eMR to the Icelandic Investment Bank for $963,568.

deCODE's investment in Gagnalind was accounted for under the equity method until November 19, 1999. On this date, deCODE acquired a majority interest and Gagnalind was consolidated. deCODE's equity in net loss of Gagnalind for the period through November 19, 1999 included in other non-operating income and expense is comprised of deCODE's share of the loss of Gagnalind and amortization of the difference between deCODE's cost and the underlying equity in the net assets of Gagnalind at acquisition. Minority interest in the loss of Gagnalind (44.4%) from November 19, 1999 to year-end 1999 and in the year ended December 31, 2000 was $2,842 and $(32,149), respectively, and is included in other non-operating income and expense. eMR has not declared nor paid any dividends to date.

In December 2000, the Icelandic Investment Bank and deCODE nullified the previous sale of 12,825,000 common shares (15%) in eMR. deCODE's investment in the common shares of eMR (35%) is accounted for under the equity method and is included in other long-term assets, amounting to $920,274 and $458,326 at December 31, 2000 and 2001, respectively. Equity in net loss of affiliate in the years ended December 31, 2000 and 2001 included in other non-operating expense is comprised of deCODE's share of the loss of eMR from March 2000 and amortization of the difference between deCODE's cost and the underlying equity in the net assets of eMR at acquisition.

Prokaria ehf.

Prokaria ehf. (Prokaria), a consolidated affiliate for a time, underwent a recapitalization during 2000 resulting in its deconsolidation from deCODE and resulting in a gain of $786,794. Such gain is included in other non-operating income and expense in the year ended December 31, 2000. The cash flows and results of Prokaria are included in the consolidated financial statements through September 2000, revenues and net loss for the period being $32,367 and $699,418, respectively. Two of deCODE's executive officers own an aggregate 37.5% of the share capital and are board members of Prokaria.

Subsequent to Prokaria's recapitalization, deCODE and Prokaria entered into a collaboration and research licensing agreement, the terms of which include:

- Prokaria settled non-interest bearing debts owed deCODE amounting to $540,654.
- deCODE sold certain intellectual property rights to certain research, including a patent application, to Prokaria in exchange for: $508,754 cash; royalties on revenue Prokaria may receive from the rights related to the patent application; and, a license for the use of the patent application rights in deCODE's own operations for the duration of the patent. The payment of $508,754 has been recognized and is included in other revenue in the year ended December 31, 2000.
- deCODE agreed to provide certain sequencing and advisory services in exchange for appropriate fees. deCODE recognized $31,600 in other revenue in respect of such sequencing services provided during the period October to December 2000 and $322,021 in the year ended December 31, 2001.
- Prokaria agreed to reimburse deCODE in respect of certain legal costs incurred by deCODE on Prokaria's behalf.

Property and Equipment

Property and equipment, substantially all located in Iceland, consist of the following:

	December 31,	
	2000	2001
Building construction-in-progress	$ 3,539,184	$ 27,263,789
Buildings	8,123,169	10,763,285
Laboratory equipment	32,400,291	29,706,265
Furniture and fixtures	1,940,895	2,812,332
Other equipment	605,141	1,004,039
	46,608,680	71,549,710
Less: accumulated depreciation and amortization	(9,507,990)	(10,342,173)
Total	$37,100,690	$ 61,207,537

The total depreciation and amortization of property and equipment for the years ended December 31, 1999, 2000 and 2001 was, $2,791,449, $4,723,967 and $8,870,263 respectively.

In January 1998, deCODE purchased the building then housing its research operations and corporate headquarters for total consideration amounting to $2,375,803, comprised of cash and 74,670 shares of Series B preferred stock. In June 1998, deCODE sold the building for $2,403,846 of cash proceeds and leased it back from the counter-party (an Icelandic bank). As ownership of the property will be transferred to deCODE at the end of the lease without any further payment, the transaction has been recorded as a financing and no immediate gain was recognized.

During 1999, laboratory equipment and consumables were received by deCODE from a customer as consideration for equipment testing services provided. Revenue was recorded, and fair value was determined with reference to list prices for such laboratory equipment and consumables. Laboratory equipment valued at $414,000 has been capitalized and is being depreciated according to deCODE's normal depreciation policy and consumables valued at $239,600 were expensed in 1999.

During 2000, deCODE paid $1,423,000 and was granted permission to construct a building of approximately 15,000 square meters in the University District which will house the operations of deCODE. deCODE began excavation on the site during October 2000 and, in January 2001, engaged a contractor for the construction of the building itself. Total project cost is estimated to be approximately $31 million. The building was placed into service during January 2002 at which time depreciation of the capitalized costs commenced.

In September 2000, deCODE acquired fifty new gene sequencing machines in exchange for $13,150,000 and twenty-four of its used gene sequencing machines. This laboratory equipment was placed into service in September and October 2000 and depreciation on the equipment commenced at that time. No gain was recognized in the exchange of deCODE's used equipment. The $13,150,000 is included in accounts payable and accrued liabilities at December 31, 2000. Payment was made in February 2001 and included in investing cash flows for the purchase of property and equipment during the year ended December 31, 2001.

In light of current conditions and pace of technological change, effective from April 1, 2001 deCODE changed the estimated useful life of sequencing instruments for purposes of depreciation to 4 years. This change in estimate had the effect of increasing depreciation expense $1.4 million in the year ended December 31, 2001.

In December 2001, deCODE sold certain laboratory equipment for $12 million of cash proceeds and leased the equipment back from the counter-party (an Icelandic leasing company) for a three-year term. As ownership of the equipment will be transferred to deCODE at the end of the lease without any further significant payment, the transaction has been recorded as a financing and no immediate gain was recognized. In connection with this lease, deCODE has an amount equal to 75% of the remaining lease payments on deposit with an Icelandic bank.

In addition to the building and equipment pursuant to the above sale-and-leaseback transactions, property and equipment also includes amounts for certain fixed assets financed under other capital lease obligations. Total cost and accumulated amortization relating to all of deCODE's property and equipment subject to capital lease obligations was $10,590,668 and $4,975,162, respectively, as of December 31, 2000 and $16,488,241 and $1,520,934, respectively, as of December 31, 2001.

deCODE's capital lease obligations are collateralized by the assets to which the obligations relate. deCODE has an option to purchase all of the leased property and equipment for 0.2-3% of the original lease amount at lease end, with the exception of the leased building, in which ownership transfers upon lease expiration.

Acquisitions

Cyclops ehf.

In November 2000, deCODE acquired the outstanding shares of Cyclops ehf. (Cyclops), an Icelandic company performing research involving the solubility and absorption of drugs, in exchange for 107,910 shares of deCODE's common stock. In addition, deCODE issued 30,000 shares of its common stock to the selling shareholders of Cyclops in connection with the continuing employment by the two former owners of Cyclops and that are subject to repurchase by deCODE. deCODE also agreed that the same two former owners of Cyclops would receive a portion of any net royalties deCODE may earn from certain ongoing projects of

Cyclops. The consolidated financial statements include the cash flows and results of Cyclops from the date of acquisition.

The acquisition was accounted for using the purchase method, whereby the total purchase price ($2,394,523) has been allocated to Cyclops' assets and liabilities based on their estimated fair values on the date of acquisition. The excess of purchase price over the fair value of the net tangible assets acquired has been allocated to patents that are being amortized using the straight-line method over three years. Other long-term assets include the recorded amount of patents less accumulated amortization on such, together amounting to $2,252,579 and $1,199,856 as of December 31, 2000 and 2001, respectively.

In addition, compensation in respect of the 30,000 shares of deCODE common stock issued to the selling shareholder of Cyclops ($665,700) is not part of the purchase price but has been recorded as deferred compensation, a component of stockholders' equity, and is being recognized as expense over four years from the date of the acquisition.

Encode ehf.

In November 2000, deCODE acquired the outstanding shares of Islenskar lyfjarannsoknir ehf. (Encode), an Icelandic research company serving the pharmaceutical industry. The acquisition was accounted for using the purchase method, whereby the total purchase price has been allocated to Encode's assets and liabilities based on their estimated fair values on the date of acquisition. The consolidated financial statements include the cash flows and results of Encode from the date of acquisition.

Digitalis ehf.

In January 2001, deCODE issued 20,000 shares of its common stock to several persons, including four of its employees, in consideration for all the outstanding capital stock of Digitalis ehf. (Digitalis), an Icelandic software company. The acquisition was accounted for using the purchase method, whereby the total purchase price ($210,000) has been allocated to Digitalis' assets and liabilities based on estimated fair values on the date of acquisition. The excess of purchase price over the fair value of the net tangible assets acquired has been allocated to intangibles that are being amortized using the straight-line method over two years. The consolidated financial statements include the cash flows and results of Digitalis from the date of acquisition.

Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following:

	December 31,	
	2000	2001
Suppliers	$ 5,501,428	$14,223,265
Salaries and other employee benefits	2,583,131	4,285,176
Other	1,722,922	2,656,135
Payable for laboratory equipment	13,150,000	0
Total	$22,957,481	$21,164,576

Debt

In December 2001, deCODE established a bridge loan with an Icelandic financial institution for the purposes of financing the construction of its new headquarters facility. Total borrowing was $27.5 million and carried an annual interest rate equal to a short-term LIBOR rate plus 0.5%. Portions of the bridge loan expired upon settlement in January and March 2002 out of the proceeds of Tier A bonds and the Tier C bonds/Tier D

bank loan, respectively, as discussed below. As deCODE intended to and did refinance the bridge loan on a long-term basis subsequent to year-end, the bridge loan has been classified as long-term as of December 31, 2001. Monies received in respect of the Tier A bonds ($13.5 million) are included in cash and cash equivalents at December 31, 2001 and monies received in respect of the Tier C bonds and the Tier D bank loan ($14.0 million) are included in restricted cash as a result of the contractual terms with the financial institution.

In December 2001, deCODE borrowed $17.8 million from an Icelandic bank for the construction of its new headquarters facility. The borrowing is collateralized by the property and improvements and consists of: privately placed bonds (Tier A) — approximately $13.8 million denominated in Icelandic krona and linked to the Icelandic Consumer Price Index that is payable annually beginning December 2002 and bears annual interest of 8.5% that is payable annually beginning December 2002; and, a $4.0 million bank loan (Tier B) — denominated in U.S. dollars that is payable quarterly beginning March 2002 and bears annual interest of three-month LIBOR plus 3.0% that is payable quarterly beginning March 2002. The lender may demand prepayment of the Tier B bank loan in certain circumstances. The Tier A bonds and the Tier B bank loan were placed in January 2002 and December 2001, respectively.

Concurrently, deCODE entered into a cross-currency swap as an economic hedge against foreign exchange rate fluctuations that may occur on Tier A bonds. As of December 31, 2001 deCODE had this outstanding contract with a face amount of $13.8 million bears annual interest of three-month LIBOR plus 2.85%. Fair value of the outstanding contract at December 31, 2001 was $14.0 million.

In March 2002, deCODE borrowed a further $13.8 million from an Icelandic bank for the construction of its new headquarters facility. The borrowing is collateralized by the property and improvements and consists of: privately placed bonds (Tier C) — approximately $7.3 million denominated in Icelandic krona and linked to the Icelandic Consumer Price Index that is payable in March 2007 and bears annual interest of 12.0% that is payable annually beginning March 2003; and, a $6.6 million bank loan (Tier D) — denominated in U.S. dollars that is payable in March 2007 and bears annual interest of three-month LIBOR plus 6.0% that is payable quarterly beginning June 2002. Tier C bonds may be prepaid at each interest payment date and the Tier D bank loan may be prepaid on the anniversary date of the loan starting December 2003.

Concurrently, deCODE entered into a cross-currency swap as an economic hedge against foreign exchange rate fluctuations that may occur on the Tier C bonds. This contract with a face amount of $7.3 million expires in March 2007 and bears annual interest of twelve-month LIBOR plus 6%.

In connection with the Tier C bonds and the Tier D bank loan, deCODE issued a warrant giving the holder the right to purchase a total of 933,800 shares of deCODE common stock at $15.00 per share, as adjusted. The warrants expire in March 2007 and convert into shares of deCODE common stock automatically in the event the market value of a share of deCODE common stock should exceed $24.00 for thirty consecutive days of trading.

Debt maturities, excluding capital leases, total $2,571,429 per year in each of the next five years.

Derivative Financial Instruments

During the normal course of business, deCODE is exposed to foreign currency risk and interest rate risk. These risks can create volatility in earnings and cash flows from period to period. deCODE's objective is to reduce volatility of earnings and cash flows associated with market risks. Derivative instruments held by the Company are used for hedging and non-speculative purposes. As of December 31, 2001, deCODE had entered into just the one cross-currency swap for purposes of managing these risks.

deCODE seeks to maintain a desired level of floating-rate debt with respect to its overall debt portfolio denominated in US Dollars. To this end, deCODE uses interest rate and cross-currency swaps to manage

interest rate and foreign currency risk arising from long-term debt obligations in Icelandic krona. For the year ended December 31, 2001 deCODE had a loss of $223,136 recorded in other non-operating expense related to a derivative instrument designated as an economic hedge of fixed rate foreign currency debt, but not qualifying for hedge accounting under SFAS 133. This instrument was recorded in other long-term liabilities as of December 31, 2001.

The fair value of derivative instruments is sensitive to movements in the underlying market rates and variables. deCODE monitors the fair value of derivative instruments on a periodic basis. Fair values are calculated for each derivative using common market valuation methods with reference to available market data as of the balance sheet date.

Lease Commitments

deCODE leases certain property, laboratory equipment and other assets under obligations that expire at varying dates through 2007. At December 31, 2001, future minimum lease payments under all noncancelable leases with terms in excess of one-year are as follows:

	Operating	Capital
2002	$1,003,964	$ 5,524,141
2003	950,708	4,667,721
2004	843,097	4,671,449
2005	663,483	385,071
2006	353,875	383,458
2007 and thereafter	106,976	571,348
Total minimum lease payments	$3,922,103	16,203,188
Less amount representing interest		(1,425,450)
Present value of future minimum lease payments		14,777,738
Less: current portion		(4,855,420)
Long-term portion		$ 9,922,318

Rental expense for operating leases was $871,851 in the year ended December 31, 2001. Included in operating and capital lease commitments are leases on facilities that deCODE is or will be vacating during 2002 as a result of the move to the new headquarters facility. Total remaining minimum lease payments on these facilities are $3.4 million as of December 31, 2001. Management is currently assessing its alternatives with respect to these leased facilities.

Settlement Agreement

On December 31, 1997, deCODE entered into a settlement agreement (the Agreement) with The Beth Israel Deaconess Medical Center (Beth Israel) in respect of deCODE's past use of the institution's research facilities. Among other terms, the Agreement provides for the joint ownership of a specific technology associated with the linkage of a segment of DNA to the multiple sclerosis trait that was developed at the research facilities. deCODE has obtained an exclusive license from Beth Israel to develop and commercialize therapeutic and diagnostic products worldwide based on Beth Israel's interest in patents and know-how relating to the linkage between this particular segment of DNA and multiple sclerosis. The license under the patents will expire upon the expiration of the last patent to expire and thereafter the license to the know-how will be perpetual.

Pursuant to the Agreement, on December 31, 1999 deCODE issued 10,000 shares of Series A preferred stock. The value of the shares issued ($217,500), which resulted from the difference between the contractual

share issuance price and the estimated fair value of the shares on the date of issuance, has been expensed in the statement of operations as stock-based remuneration for the year ended December 31, 1999.

Under the terms of the Agreement, deCODE is obligated to pay license fees and other payments upon the achievement of established milestones leading to the discovery of defined products. deCODE is also required to pay royalties to Beth Israel on certain royalty bearing products which may result from the licensed technology. Such royalties are to be paid for a period up to and potentially exceeding 15 years.

Collaborative Parties

F. Hoffman-La Roche. In February 1998, deCODE entered into a research collaboration and cross-license agreement with Roche to collaborate on the discovery of genetic variations that affect the cause of diseases for the purpose of developing new methods to diagnose diseases and obtain drug targets useful in drug discovery. Under the agreement, deCODE conducted research activities and Roche funded the collaborative gene discovery programs in twelve diseases by making specified payments according to a payment schedule. Roche's obligation under the agreement to fund these programs continued until February 1, 2002 when the term of the agreement expired. In addition to research funding payments, Roche made payments to deCODE upon the achievement of specified scientific development milestones.

Partners HealthCare System, Inc. In May 2000, deCODE entered into a strategic alliance agreement and crosswalk development agreement with Partners HealthCare System, Inc., The General Hospital Corporation, d.b.a. Massachusetts General Hospital, and The Brigham and Women's Hospital, Inc. (collectively Partners) pursuant to which deCODE will (a) fund research by investigators of Partners pursuant to sponsored research agreements and/or clinical trial agreements to be entered into from time to time, (b) collaborate with Partners on, and provide funding for, development of an information technology bridge, called the crosswalk, to facilitate studies with the deCODE Combined Data Processing system and Partners' Research Patient Data Registry and (c) develop and market, in consultation with Partners, new information technology products and services relating to the use of the crosswalk for future pharmaceutical and biotechnology applications.

The strategic alliance agreement provides that a steering committee, the membership of which is equally divided between the parties, will oversee the alliance (including the development of the crosswalk) and select the research projects and/or clinical trials that deCODE will fund at Partners. deCODE has an exclusive option to acquire an exclusive license to any patents or copyrights developed under such sponsored research or clinical trial agreements on financial terms to be negotiated by the parties based on pre-determined criteria contained in the strategic alliance agreement. Each party has the right to use the crosswalk to facilitate studies with the databases for non-commercial internal research purposes. Each party also has the right to use the crosswalk to facilitate studies with such party's own database to conduct commercially sponsored research. Partners is required to pay deCODE a royalty on revenue it receives from such use. In addition, deCODE has the exclusive right to use the crosswalk to develop and market products and services but are obligated to pay Partners a royalty on revenue from the sale of such products and services.

The agreements are for a three-year term, which, in the case of the strategic alliance agreement, may be extended for an additional two-year term by the mutual agreement of the parties and, in the case of the crosswalk development agreement, may be extended for an additional term to be agreed upon by the parties. The agreements may also be terminated by either party if the other party is in default. In addition, deCODE may terminate the agreements under certain circumstances, including infeasibility of the alliance or if the alliance jeopardizes the mission or objectives of either party.

F. Hoffman-La Roche. In June 2001, deCODE entered into a collaboration and cross-license agreement with Roche regarding diagnostics. Under the terms of this new agreement, deCODE is collaborating on the development and marketing of DNA-based diagnostics for major diseases, working with Roche to identify

and validate molecular targets that are useful for developing products and services that accurately establish a patient's current diagnosis, predict future risk of disease, predict drug response and determine responses to treatment or the health status of individuals and enable early prevention or treatment of disease. deCODE will also be focusing on developing informatics products and services, which will include software tools and databases. As part of the alliance deCODE has also provided Roche with access to intellectual property, including deCODE's Clinical Genome Miner. Under the agreement deCODE is or will receive payments including research funding, research milestones and royalties on any products which are commercialized. The research term under the agreement is five years.

Genmab. In June 2001, deCODE entered into a collaboration agreement with Genmab A/S and Medarex, Inc. pursuant to which the parties are collaborating on the research, development, and commercialization of new antibody therapeutic products. Under this five year collaboration, deCODE is utilizing novel targets discovered in its research on the genetics of common diseases along with Genmab's human antibody technology. The collaboration covers a broad range of disease areas including cardiovascular disease, inflammatory disease and cancer. Together with Genmab and Medarex, deCODE will share equally in the development costs and revenues generated from the outlicensing or sales of products developed under the agreement.

In June 2001, deCODE entered into an agreement to provide Genmab A/S with research and development services to develop DNA-based tests to predict individual clinical response to Genmab's antibody treatment for rheumatoid arthritis and possible related novel therapeutics. deCODE will be paid as stages of the research program are completed. Additionally, deCODE will receive milestone and royalty payments on commercialized products should Genmab A/S exercise its option for first opportunity to enter into a royalty-bearing license agreement.

Affymetrix Inc. In July 2001, deCODE entered into a pharmacogenomics collaboration and license agreement with Affymetrix, Inc. Under the terms of the agreement the parties are collaborating in the research and development of gene expression tests and nucleic acid based tests to predict the response of individual patients to various drugs. deCODE is undertaking the initial research activities to be performed with respect to the initial ten drugs to be studied under the collaboration. Affymetrix will supply various chips in connection with the research. The parties will share revenues resulting from the collaboration, including those from licensing and product commercialization.

Applied Biosystems Group. In July 2001, deCODE entered into a joint development and commercialization agreement with Applied Biosystems Group (ABG). Under the terms of the agreement, the parties are collaborating to develop and commercialise software products for the collection, organization and analysis of genotyping information. Under this agreement, deCODE and ABG have granted to each other licenses to products developed under the joint development program.

In July 2001, deCODE also entered into a separate three-year reagent supply agreement with ABG. Under the terms of the agreement, ABG has agreed to supply and deCODE has agreed to purchase reagents and other supplies over three years, including a remaining minimum of $16.3 million through September 2002.

Pharmacia. In December 2001, deCODE formed a pharmacogenomics alliance with Pharmacia Corporation (Pharmacia) to identify the role of genetics in the development of advanced forms of heart disease. Under the agreement, deCODE will employ its population resources and Clinical Genome Miner discovery system to find genetic markers that can be used to identify patients who are highly predisposed to progressing from an early to an advanced form of heart disease. If the results of the first phase are encouraging, Pharmacia has the option to use the genetic markers as the basis for clinical trials of cardiovascular drugs under development at Pharmacia. deCODE will receive contract fees as part of the first phase of this agreement. In addition, deCODE will receive royalties on sales of diagnostic tests as well as royalties on potential sales of cardiovascular drugs should Pharmacia exercise its licensing options in the

alliance. Pharmacia may terminate this arrangement for a full refund through April 18, 2002 for certain defined circumstances.

Hospital and Physician Collaborations. deCODE has entered into collaboration agreements and arrangements with the Icelandic Heart Association and several physician groups. The goal of these collaborations is the discovery of genetic factors which contribute to the genesis of certain disorders on which the various physician groups maintain patient information. Under the agreements, these institutions and/or physicians contribute data or other clinical information and deCODE contributes equipment, research supplies and our molecular genetics and experimental design expertise. The agreements also require deCODE to reimburse all project-related expenses. If deCODE sells project results, the agreements require it to make specified payments and pay a portion of any performance-based milestones and royalties that it receives. deCODE has already sold the results of many of these projects to a third party, Roche. deCODE shares the ability to make management decisions regarding the projects with the physician groups, and jointly forms an executive or steering committee to monitor the project. deCODE's collaboration agreements with the physician groups normally continue for a term of no more than five years.

To further facilitate deCODE's research projects and enable it to construct lists of patients with specific diseases, deCODE has also entered into collaboration agreements and arrangements with two of the largest hospitals in Iceland. Under the terms of these agreements, the hospitals provide research data. deCODE's projects are monitored by a surveillance committee that is jointly appointed with the hospitals. deCODE is obligated to pay all of the expenses (other than the hospitals' administrative expenses) incurred as a result of the collaboration. The agreements with the hospitals will continue until terminated by the parties.

The Icelandic Health Sector Database license requires deCODE to enter into agreements with Icelandic health institutions and self-employed health service workers regarding access to and the processing of information from medical records. To date, deCODE has entered into such agreements with nine Icelandic health institutions.

Icelandic Health Sector Database License

On January 22, 2000, the Ministry of Health and Social Security, or the Ministry, granted deCODE an operating license to create and run the Icelandic Health Sector Database, or the License. The License, which has a term of twelve years, allows deCODE to collect data from medical records of Icelandic healthcare institutions and self-employed healthcare professionals and to transfer such data in encrypted form into a centralized database. As required by the License and concurrently with the issuance of the License, deCODE entered into an agreement with the Ministry whereby deCODE must pay the Icelandic government a fixed annual fee of 70 million Icelandic kronas and an additional annual fee of 6% of its net profit, up to a maximum of 70 million Icelandic kronas per year. At December 31, 2001, $1,356,590 in respect of these annual fees has been provided and is included in accounts payable and other accrued expenses. The agreement also provides that deCODE's rights to the Icelandic Health Sector Database will be transferred to the Ministry on the expiration or termination of the license, January 2012.

deCODE's preparation of the Icelandic Health Sector Database is subject to technical requirements imposed by the Icelandic Data Protection Authority, or the Authority, in areas such as data encryption and privacy protection. These requirements are subject to change from time to time and may require greater technical capabilities than deCODE currently has. Compliance with these requirements can be expensive and time-consuming and may delay the development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system or make such development more expensive than anticipated. In addition, deCODE's compliance is subject to evaluation by the agencies imposing these requirements. deCODE cannot control the time required for this evaluation, and accordingly, the evaluation process may lead to delay in the development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system.

deCODE is subject to a very extensive indemnity clause in the agreement with the Ministry, pursuant to which it has:

- agreed not to make any claim against the government if the Act or the License are amended as a result of the Act or rules relating to the Icelandic Health Sector Database being found to be inconsistent with the rules of the European Economic Area or other international rules and agreements to which Iceland is or becomes a party;
- agreed that if the Icelandic state by a final judgment is found to be liable or subject to payment to any third party as a result of the passage of legislation on the Icelandic Health Sector Database and/or issuance of the License, deCODE will indemnify it against all damages and costs in connection with the litigation; and
- agreed to compensate any third parties with whom the Icelandic government negotiates a settlement of liability claims arising from the legislation on the Icelandic Health Sector Database and/or the issue of the License, provided that the Icelandic government demonstrates that it was justified in agreeing to make payments pursuant to the settlement.

The License and the agreement under which deCODE received the license also require it to:

- pay the costs incurred by the health institutions (including the costs of medical record software) in connection with the entering of data from medical records before transfer to the Icelandic Health Sector Database;
- financially segregate the operation of the Icelandic Health Sector Database from its other activities by maintaining a separate operating unit, and separate accounts for the Icelandic Health Sector Database;
- pay the costs of the governmental agencies which monitor deCODE's Icelandic Health Sector Database activities;
- indemnify and agree not to sue the Icelandic government for any liability resulting from the passage of the legislation on the Icelandic Health Sector Database and its operation and/or the issuance of the Icelandic Health Sector Database; and
- observe international science ethics rules.

The License prohibits deCODE from, among other things, abusing its position by charging unreasonable fees, refusing business to our competitors or discriminating among customers by imposing discriminatory or other onerous business terms on our customers; or assigning or pledging our rights in the License.

The Icelandic Health Sector Database license will expire in January 2012, unless an extension is granted.

Litigation

In January 2000, Thorsteinn Jonsson and Genealogia Islandorum hf., the alleged holders of copyrights to approximately 100 books of genealogical information, commenced an action against deCODE in the District Court of Reykjavik in Iceland. They allege that deCODE's genealogy database infringes their copyrights and seek damages in the amount of approximately 616 million Icelandic kronas and a declaratory judgment to prevent deCODE from using the allegedly infringing data. deCODE believes the suit is without merit and intends to defend this action vigorously; however, the ultimate resolution of this matter cannot yet be determined.

In February 2000, Mannvernd, an organization known as the Association of Icelanders for Ethics in Science and Medicine, issued a press release announcing its intention to file lawsuits against the State of Iceland and any other relevant parties, including deCODE, to test the constitutionality of the Act. In its press release, Mannvernd indicated that it hopes to halt the construction and/or operation of the Icelandic Health

Sector Database. In April 2001, a lawsuit was filed against the Icelandic Directorate of Public Health but Mannvernd has not commenced litigation against deCODE; however, the ultimate resolution of this matter cannot yet be determined.

In April 2000, Ernir Snorrason, an original stockholder of deCODE, filed a complaint in the Court of Chancery of the State of Delaware for New Castle County alleging that deCODE improperly exercised an option to repurchase 256,637 shares of common stock that deCODE issued to Mr. Snorrason in 1996 pursuant to a Founders' Stock Purchase Agreement and seeking an order requiring deCODE to recognize Mr. Snorrason as the owner of these shares. In June 2001, the parties settled the matter without admission or adjudication of any issue of fact or law and 166,814 shares of deCODE common stock were issued to Mr. Snorrason for $0.001 per share, the par value, with the resulting loss ($1,292,642) being recorded as a general and administrative expense at that time.

Although deCODE has not yet been served with copy of the complaint, management is aware that on December 6, 2001, a purported class action alleging violations of federal securities laws was filed in the United States District Court for the Southern District of New York on behalf of certain purchasers of deCODE common stock. The complaint names deCODE, two of its current executive officers (the "Individual Defendants"), and the two lead underwriters (the "Underwriter Defendants") for our initial public offering in July 2000 (the "IPO") as defendants.

The plaintiff alleges violations of Section 11 of the Securities Act of 1933 against deCODE and the Individual Defendants, violations of Section 15 of the Securities Act of 1933 against the Individual Defendants and violations of Sections 11 and 12(a)(2) of the Securities Act of 1933 and Section 10(b) of the Securities Exchange Act of 1934 (and Rule 10b-5 promulgated thereunder) against the Underwriter Defendants. Generally, the complaint alleges that the Underwriter Defendants: (i) solicited and received excessive and undisclosed commissions from certain investors in exchange for which the Underwriter Defendants allocated to those investors material portions of the shares of deCODE's stock sold in the IPO and (ii) entered into agreements with customers whereby the Underwriter Defendants agreed to allocate shares of deCODE's stock sold in the IPO to those customers in exchange for which the customers agreed to purchase additional shares of deCODE's stock in the aftermarket at pre-determined prices. The complaint further alleges that the prospectus incorporated into the registration statement for the IPO was materially false and misleading in that it failed to disclose these arrangements. The suit seeks unspecified monetary and recissionary damages and certification of a plaintiff class consisting of all persons who purchased shares of deCODE common stock from July 7, 2000 to December 6, 2000.

deCODE is aware that similar allegations have been made in hundreds of other lawsuits filed (many by some of the same plaintiff law firms) against numerous underwriter defendants and issuer companies (and certain of their current and former officers) in connection with various public offerings conducted in recent years. All of the lawsuits that have been filed in the Southern District of New York have been consolidated for pretrial purposes before Honorable Judge Shira A. Scheindlin.

deCODE believes that the allegations against deCODE and its officers are without merit and intends to contest them vigorously. The litigation is, however, in the preliminary stage, and deCODE cannot predict its outcome and the ultimate effect, if any, on deCODE's financial condition. In addition, it is possible that further lawsuits alleging substantially similar claims will be filed against deCODE and its officers. If deCODE is required to pay significant monetary damages as a result of such litigation its business could be significantly harmed. Even if such suit or suits conclude in its favor, deCODE may be required to expend significant funds to defend against the allegations. deCODE is unable to estimate the range of possible loss from the litigation and no amounts have been provided for such matters in its financial statements.

Preferred Stock

Prior to deCODE's initial public offering of common stock, deCODE was authorized to issue a total of 32,641,926 shares of preferred stock. Of these shares, 11,041,926 shares, 10,300,000 shares, and 4,583,334 shares had been designated Series A, Series B and Series C, respectively, and 6,716,666 remain undesignated.

In accordance with the terms of the then outstanding preferred stock, shares of Series A, Series B, and Series C preferred stock were converted into 9,624,282, 10,046,132 and 4,066,667 shares of common stock, respectively, effective upon the closing of deCODE's initial public offering in July 2000. Effective concurrently with the initial public offering, all authorized shares of Series A, Series B and Series C preferred stock were retired.

In respect of the remaining undesignated shares of preferred stock, deCODE's Board of Directors is authorized, except as otherwise limited by Delaware law, without further action by the stockholders to:

- issue shares of preferred stock in one or more series;
- fix or alter the dividend rights, dividend rates, conversion rights, voting rights, terms of redemption (including sinking fund provisions), redemption price or prices, and liquidation preferences of any wholly unissued series of preferred stock;
- designate the number of shares constituting, and the designation of, any series of preferred stock; and
- increase or decrease the number of shares of a series subsequent to the issue of shares of that series, but not below the number of shares of that series then outstanding.

	Number of Shares			Amount			
	Series A Preferred Stock	Series B Preferred Stock	Series C Preferred Stock	Series A Preferred Stock	Series B Preferred Stock	Series C Preferred Stock	Total
Balance at December 31, 1997	11,790,375	0	0	$ 12,603,990	$ 0	$ 0	$ 12,603,990
Issuance of Series A preferred stock	120,000			366,000			366,000
Issuance of Series B preferred stock		4,712,990			22,616,316		22,616,316
Issuance of Series C preferred stock warrants and options			2,500,000			5,000,250	5,000,250
Accretion of dividends and amortization of discount on preferred stock				1,042,473	1,113,560	415,490	2,571,523
Balance at December 31, 1998	11,910,375	4,712,990	2,500,000	14,012,463	23,729,876	5,415,740	43,158,079
Repurchase and retirement of Series A preferred	(2,358,074)			(2,916,259)			(2,916,259)
Exchange of common stock for Series B preferred		250,000			3,750,000		3,750,000
Repurchase of Series B preferred stock		(250,000)			(3,750,000)		(3,750,000)
Repurchase of Series C preferred stock and held in treasury			(100,000)			(224,329)	(224,329)
Issuance of Series A preferred stock	10,000			367,500			367,500
Issuance of Series B preferred stock		5,180,824			71,869,064		71,869,064
Issuance of Series C preferred stock and warrants			1,111,111			1,792,525	1,792,525
Accretion of dividends and amortization of discount on preferred stock				942,183	4,266,212	2,334,392	7,542,787
Balance at December 31, 1999	9,562,301	9,893,814	3,511,111	12,405,887	99,865,152	9,318,328	121,589,367
Issuance of Series A preferred stock upon exercise of warrants	61,981			61,981			61,981
Issuance of Series B preferred stock		152,318			3,000,000		3,000,000
Issuance of Series C preferred stock and warrants upon exercise of option			555,556			181,400	181,400
Accretion of dividends and amortization of discount on preferred stock				494,980	4,418,652	2,627,247	7,540,879
Redeemable, convertible preferred stock converted to common stock	(9,624,282)	(10,046,132)	(4,066,667)	(12,962,848)	(107,283,804)	(12,126,975)	(132,373,627)
Balance at December 31, 2000 and 2001	0	0	0	$ 0	$ 0	$ 0	$ 0

Series A Preferred Stock

In connection with the sale of 5,090,376 shares of Series A preferred stock in October 1997, deCODE issued 1,137,814 warrants to purchase Series A preferred stock for $1.00 per share. The total consideration received under the issuance was allocated between the preferred shares and the warrants based upon their relative fair values at the date of issuance. The consideration allocated to the warrants was $650,240, and the resulting discount on the preferred shares was being amortized over seven years, the earliest redemption date

of the Series A preferred stock. One stockholder exercised 61,981 warrants in March 2000 and, in connection with deCODE's initial public offering and in accordance with the their terms, the remaining 1,075,833 warrants were converted in July 2000 into warrants to purchase the same number of shares of common stock.

Series B Preferred Stock

In January 2000, deCODE and the Icelandic Ministry for Health and Social Security agreed to jointly establish an independent foundation, the objective of which is to tend to matters of interest for children in Iceland. In May 2000, deCODE provided capital to the foundation in the amount of 150,000 shares of deCODE's Series B preferred stock for $0.001 per share; such issuance resulting in $3 million being recorded immediately as a contribution expense.

Series C Preferred Stock

Pursuant to a stock and warrant purchase agreement signed in February 1998, Roche purchased 2,500,000 shares of Series C preferred stock at $2.00 per share in February 1998, 555,555 shares of Series C preferred stock at $3.00 per share in February 1999, 555,556 shares of Series C preferred stock at $3.00 per share in May 1999, and 555,556 shares of Series C preferred stock at $4.00 per share in June 2000. There are no future performance obligations or any stated or unstated rights or privileges associated with these purchases of Series C preferred stock by Roche. In connection with these share purchases, Roche also obtained warrants to purchase an additional 416,667 shares of Series C preferred stock for a weighted-average exercise price of $2.53 per share. The total consideration received under these issuances was allocated between the preferred shares and the warrants based upon their relative fair values at the dates of issuance.

Options and warrants to purchase 861,112 shares of Series C preferred stock were issued to Roche in February 1998. The consideration allocated to these options and warrants was $400,250, and the resulting discount on the preferred shares was being amortized over seven years, the earliest redemption date of the Series C preferred stock. An option to purchase 555,556 shares of Series C preferred stock and an option to purchase warrants in respect of 55,556 shares of Series C preferred stock were exercised in June 2000 (refer above and below). The remaining 250,000 warrants expire in February 2007.

The consideration allocated to the 55,555 warrants issued in February 1999 was $41,668, and the resulting discount on the preferred shares was being amortized over seven years, the earliest redemption date of the Series C preferred stock. These warrants expire in February 2008.

The consideration allocated to the 55,556 warrants issued in May 1999 was $125,804 resulting in the preferred shares being issued at a discount. As the preferred shares issued with these warrants were issued with beneficial conversion features, the remaining consideration to be allocated was recorded as additional paid-in capital resulting in no consideration being allocated to the preferred shares. This resulting discount on the preferred shares was amortized entirely on the date of issuance, as the preferred shares are convertible upon issuance. These warrants expire in May 2009.

The consideration allocated to the 55,556 warrants issued in June 2000 was $181,400 resulting in the preferred shares being issued at a discount. As the preferred shares issued with these warrants were issued with beneficial conversion features, the remaining consideration to be allocated was recorded as additional paid-in capital resulting in no consideration being allocated to the preferred shares. This resulting discount on the preferred shares was amortized entirely on the date of issuance, as the preferred shares are convertible upon issuance. These warrants expire in June 2009.

In connection with deCODE's initial public offering and in accordance with the their terms, the remaining Series C preferred stock warrants outstanding (416,667) were converted in July 2000 into warrants to purchase the same number of shares of common stock.

Issuance of Series B Preferred Stock

On June 30, 1999, deCODE entered into a Stock Purchase Agreement (the Purchase Agreement) to sell five million shares of Series B preferred stock at $7.50 per share (the Purchase Price) to a Luxembourg-based financial buyer (the Buyer). The sale closed on August 8, 1999.

Contemporaneously with the execution of the Purchase Agreement, deCODE and the Buyer entered into an agreement pursuant to which the parties agreed upon the following:

- Sales of Series B preferred stock in the Icelandic market shortly before the date of the Purchase Agreement indicated that the market price was approximately $15 per share;
- The Buyer would sell the Series B preferred stock to Icelandic investors at the market price;
- The Purchase Price at which the Buyer would buy the Series B shares from deCODE would be increased to $15.00 per share (the Adjusted Purchase Price) if (i) the Buyer was able to sell at least 50% of the Series B shares at or above the Adjusted Purchase Price and (ii) the trading price in the Icelandic market remained at or above the Adjusted Purchase Price from the time of such resale through the end of 1999;
- In the event that deCODE received the incremental Adjusted Purchase Price proceeds from the Buyer, deCODE would also receive interest on such amount at a rate of 6% per annum from the closing date; and
- The Buyer would receive a commission of 7% of the proceeds from the sale of the Series B preferred stock for the placement of deCODE's stock. This commission would only become payable in the event that the Purchase Price was subsequently increased to the Adjusted Purchase Price.

On August 8, 1999, the closing date, the Buyer advised deCODE that it had arranged for the sale of at least 50% of the Series B shares at a price of $15.00 per share.

Exchange of Common Stock for Series B Preferred Stock

On August 8, 1999, deCODE exchanged 333,333 shares of common stock held by deCODE's chief executive officer, or CEO, for 250,000 shares of newly issued Series B preferred stock. At that time, the common shares were estimated to have a fair value equal to 90% of the fair value of the Series B preferred shares. This exchange resulted in a deemed contribution by deCODE's CEO of $750,000 being recorded. The 333,333 shares of common stock were held in treasury and subsequently re-issued during 1999.

Repurchase of Series A, Series B and Series C Preferred Stock

On August 8, 1999, deCODE repurchased the 250,000 shares of Series B preferred stock issued to its CEO pursuant to a Resolution adopted by the Board of Directors. The 250,000 shares of Series B preferred stock were held in treasury and subsequently re-issued during 1999.

On August 11, 1999, deCODE repurchased and retired 2,358,074 shares of Series A preferred stock.

On August 24, 1999, deCODE repurchased and held in treasury 100,000 shares of Series C preferred stock.

Pursuant to the Series A and Series C preferred stock repurchase agreements and the Board Resolution, the initial repurchase price deCODE paid for such shares of Series A, Series B and Series C preferred stock was $7.50 per share (the Repurchase Price). deCODE paid the Repurchase Price to the selling shareholders in August 1999. However, pursuant to agreements between the respective stockholders and deCODE on July 12, 1999, it was agreed that the repurchase price paid for the Series A, Series B and Series C preferred

stock would be equal to the Purchase Price per share, net of any commission payable to the Buyer, at which deCODE sold shares of its Series B preferred stock in the August 8, 1999 offering.

Adjustment to Issuance and Repurchase Prices

On December 28, 1999, the conditions requiring an increase of the Purchase Price were met, and deCODE and the Buyer agreed on an Adjusted Purchase Price of $15.00 per share for the five million shares of Series B preferred stock sold to the Buyer on August 8, 1999. It was also agreed that the Buyer would receive the commission in the amount of $5,250,000, representing 7% of the total aggregate Adjusted Purchase Price for the Series B shares.

As of December 31, 1999, deCODE had recorded a receivable from the Buyer in the amount of $33,143,836 representing the incremental amount due from the Buyer with respect to the Adjusted Purchase Price of $37,500,000, less commissions and plus accrued interest. The receivable from the Buyer was paid in February 2000. The total amount received was $33,476,712.

As a result of the Purchase Price being adjusted, on December 28, 1999, deCODE and the Series A stockholders, deCODE's CEO and the Series C stockholder agreed upon an adjusted repurchase price for the Series A, Series B and Series C preferred stock of $13.95 per share, that being the Adjusted Purchase Price of $15.00 per share less a commission of 7% of the Adjusted Purchase Price. This adjustment to the repurchase price resulted in the Series A and Series C shares being repurchased for total premiums of $29,978,873 and $1,170,671, respectively, and the Series B shares being repurchased for a net discount of $262,500.

The incremental repurchase price per share of $6.45, or $17,467,077 in aggregate, was paid to the respective sellers of Series A, Series B and Series C preferred stock in February 2000, and accordingly, was reflected in the balance sheet at December 31, 1999 as a current liability.

Common Stock

The total authorized shares of common stock, par value $0.001, of deCODE is 60,000,000 shares. Holders of shares of common stock are entitled to one vote at all meetings of stockholders for each share held by them. The common stock has no preemptive rights or other rights to subscribe for additional shares, no conversion right and no right of redemption. Subject to the rights and preferences of the holders of any preferred stock, the holders of the common stock are entitled to receive such dividends as, when and if declared by the Board of Directors out of funds legally available for that purpose.

In July 2000, deCODE completed its initial public offering of common stock. A total of 11,040,000 shares were sold by deCODE at a price of $18.00 per share. The offering resulted in net proceeds to deCODE of approximately $182.0 million, net of an underwriting discount of $13.9 million and offering expenses of $2.9 million.

Of the 6,015,000 shares of common stock that were issued and paid at the inception of deCODE, 5,789,438 were issued to the founders of deCODE subject to certain vesting provisions (Founder Stock). The unvested shares of Founder Stock were subject to repurchase by deCODE at the original issue price in the event that a founder did not continue in employment, according to individual terms. All remaining Founder Stock is fully vested as of December 31, 2001.

Of the Founder Stock, 3,125,292 shares of common stock are entitled to piggyback registration rights with respect to the registration of such shares under the Securities Act. Should deCODE propose to register any further shares of common stock under the Securities Act either for deCODE's own account or for the account of other security holders, the holders of shares having piggyback rights are entitled to receive notice of the registration and are entitled, with some limitation, to include their shares in the registration.

Forfeited unvested Founder Stock and unvested common stock issued upon early exercise of stock options totaling 26,977 in 2000 and 2001 were held in treasury and subsequently re-issued during those same years. At December 31, 2001, forfeited unvested common stock issued upon early exercise of stock options totaling 70,841 shares were held in treasury. At December 31, 2001, 375,020 shares of common stock that were issued upon early-exercise of stock options remained unvested.

Notes receivable provided in connection with the purchase of common stock are collateralized only by the shares to which they relate, are payable after a fixed period of generally four years and bear a fixed interest rate of generally six percent per annum.

Upon the closing of deCODE's public offering in July 2000, warrants to purchase 1,075,833 shares of Series A preferred stock and warrants and options to purchase 416,667 shares of Series C preferred stock automatically converted into warrants and options to purchase the same number of shares of common stock. Of these warrants, 325,000 were exercised during the period from the public offering and December 31, 2000 and 100,000 were exercised in the year ended December 31, 2001. At December 31, 2001, 1,067,500 warrants to purchase the same number of shares of common stock are outstanding. Holders of such warrants and options have the right to require deCODE to file a registration statement under the Securities Act covering the registration of their shares at any time after 180 days from the effective date of an initial registration statement if the holders of 50% of such shares demand registration. Such registration rights are subject to conditions and limitations, including the right of the underwriters of an offering to limit the number of shares of common stock which security holders may include in a registration. Further, deCODE may defer a registration for a period of 90 days if deCODE furnishes to the holders requesting registration a certificate signed by the chairman of the board stating that in the good faith judgment of the Board of Directors it would be seriously detrimental to deCODE and its stockholders for the requested registration to be effected at that time. deCODE is generally required to bear all of the expenses of such registrations, except underwriting discounts and selling commissions. Registration of any of the shares of common stock held by security holders with registration rights would result in such shares becoming freely tradable without restriction under the Securities Act immediately upon effectiveness of such registration.

Stock Option Plan

In August 1996, deCODE adopted the deCODE genetics, Inc. 1996 Equity Incentive Plan (the "Plan"). A total of 7,000,000 options are reserved for grants under the terms of the Plan. The Plan provides for grants of stock options to employees, members of the Board of Directors, consultants and other advisors who are not employees. Options granted to date generally vest over a period of four years, generally have a maximum term of 10 years, and may contain early-exercise provisions allowing for company-provided financing of the exercise price. As of December 31, 2001, 950,188 shares were available for grant under the Plan.

Options transactions pursuant to the Plan are summarized as follows:

	Exercise Price Greater Than Grant Date Stock Fair Value		Exercise Price Equals Grant Date Stock Fair Value		Exercise Price Less Than Grant Date Stock Fair Value		Total	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Outstanding at December 31, 1998	17,000	$ 4.00	15,000	$ 4.00	15,000	$0.20	47,000	$ 2.79
Granted	0	0.00	0	0.00	855,500	5.85	855,500	5.85
Exercised	(7,000)	4.00	0	0.00	(840,500)	5.62	(847,500)	5.61
Cancelled	(10,000)	4.00	0	0.00	0	0.00	(10,000)	4.00
Outstanding at December 31, 1999	0	0.00	15,000	4.00	30,000	9.25	45,000	7.50
Granted	5,000	18.00	658,500	15.02	420,500	8.39	1,084,000	12.46
Exercised	0	0.00	(140,000)	12.54	(75,000)	0.84	(215,000)	8.46
Cancelled	0	0.00	(93,000)	17.86	0	0.00	(93,000)	17.86
Outstanding at December 31, 2000	5,000	18.00	440,500	14.83	375,500	9.97	821,000	12.63
Granted	100,000	7.42	1,049,000	8.23	0	0.00	1,149,000	8.16
Exercised	0	0.00	0	0.00	0	0.00	0	0.00
Cancelled	0	0.00	(50,396)	12.04	0	0.00	(50,396)	12.04
Outstanding at December 31, 2001	105,000	$ 7.92	1,439,104	$10.12	375,500	$9.97	1,919,604	$ 9.97

The following table summarizes information about stock options outstanding at December 31, 2001:

	Outstanding		Vested and Exercisable	
Exercise Price	Number of Shares	Weighted Average Remaining Contractual Life (In Years)	Number of Shares	Weighted Average Exercise Price
$1.00 to $8.00	654,500	9.53	84,000	$ 2.86
$8.13 to $8.65	588,500	9.30	56,004	8.13
$10.00 to $18.29	676,604	8.69	249,589	14.45
$1.00 to $18.29	1,919,604	9.16	389,593	$11.04

deCODE records deferred compensation for employee stock options based on the difference between the exercise price and the common stock fair value on the measurement date (i.e., the date on which both the number of shares to be issued and the exercise price are fixed and determinable) and records interim estimates of deferred compensation between the grant date and the measurement date. deCODE records deferred compensation for non-employee stock options based on the grant date fair value of options granted as estimated by the Black-Scholes option pricing model. Deferred compensation is amortized and recorded as compensation expense ratably over the vesting period of the options. Stock-based compensation expense of $5,815,010, $8,246,419 and $4,597,989 was recognized in the statements of operations during the years ended December 31, 1999, 2000 and 2001 for employee stock options, and stock-based remuneration expense of $2,498,355, $24,135 and $52,750 was recognized in the statements of operations during the years ended December 31, 1999, 2000 and 2001 for non-employee stock options.

Each employee option grant generally vests twenty-five percent on the first anniversary date of an employee's commencement of employment and 1/48th of the original grant each month thereafter for the following three years. Non-employee option grants generally have not contained vesting provisions.

All options granted from inception through 1999 and two option grants in 2000 have contained a provision for early-exercise according to the terms of the Plan with company-provided financing of the exercise price made available. In almost all cases, employees took advantage of their right to early-exercise and to fund such exercise with a company-provided loan. The company-provided loans are due after a fixed term of generally four years and bear a fixed interest rate of six percent per annum.

Employee stock options granted in 1997 and 1998 were amended in March 1999. Such amendment eliminated prepayment terms with respect to principal and interest pursuant to the company-provided note and fixed the interest rate at 6%. With this, these option grants, which were originally variable awards, became fixed. Total compensation measured at March 1999 with respect to the options granted in 1997 and 1998 aggregated $14,872,579. Of this amount, $1,265,947 was recognized as compensation in the consolidated statements of operations in the period January through March 1999. Compensation deferred as of and to be recognized subsequent to March 1999 with respect to the options granted in 1997 and 1998, amounted to $8,939,134.

Other Stock and Stock Option Arrangements

In February 1998, deCODE granted a stock option to a collaborator that was not granted under the provisions of the Plan. This option was for 80,000 shares of common stock at an exercise price of $0.40 per share. The option had no vesting provisions and was immediately exercised using company-provided financing that was subsequently paid in 1999.

In 2000, deCODE issued 20,000 shares of common stock to collaborators amounting to $415,953 in exchange for services provided. This remuneration amount was charged to expense in the statement of operations in the year ended December 31, 2000.

Pro Forma Net Loss per Common Share

Had compensation cost for all stock options been determined based on the fair value at the grant date for awards consistent with the provisions of SFAS No. 123, deCODE's net loss and basic and diluted net loss per share would have been changed to the pro forma amounts indicated below:

	For the years ended December 31,		
	1999	2000	2001
Net loss attributable to common stockholders — as reported	$62,218,278	$38,659,382	$47,838,471
Net loss attributable to common stockholders — proforma	58,348,278	35,862,382	49,818,838
Basic and diluted net loss per share as reported — proforma	9.65	1.63	1.08
Basic and diluted net loss per share	9.05	1.52	1.12

Pro forma net loss and net loss per share for the years ended December 31, 1999 and 2000 is less than net loss and net loss per share as reported as a result of deCODE's employee stock options initially being accounted for as variable awards under APB No. 25. The variable award accounting combined with the growth in the estimated fair value of deCODE's common stock during these years resulted in significant stock-based compensation expense being recognized in the statements of operations for 1999, 2000 and 2001 under APB No. 25. Recent stock option awards are accounted for as fixed awards under APB No. 25 with little or no compensatory element.

The effects of applying the provisions of SFAS No. 123 on net loss and net loss per share as stated above is not necessarily representative of the effects on reported income or loss for future years due to, among other

things, the vesting period of the stock options and the fair value of additional stock options that may be granted in future years. The weighted-average grant date fair values using the Black-Scholes option pricing model were:

	For the years ended December 31,		
	1999	2000	2001
Exercise price greater than grant date stock fair value	$ —	$ —	$7.42
Exercise price equals grant date stock fair value	$ —	$ 9.82	$8.23
Exercise price less than grant date stock fair value	$11.89	$17.65	$ —

The fair values of the options granted during 1999, 2000 and 2001 are estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions: no dividends, expected volatility of 60%, 80% and 100%, respectively; expected terms of 3.9 years, 5.0 years and 5.0, respectively; and risk-free interest rates of 5.74%, 5.42% and 4.39%, respectively.

Stock-Based Compensation and Remuneration

Stock-based compensation represents the expense charged in the statements of operations relating to employee and non-employee stock options granted. Stock-based remuneration represents the expense charged in the statements of operations relating to shares of stock issued to non-employees in exchange for services provided. Stock-based compensation and remuneration are included in the statements of operations in the following captions:

	For the years ended December 31,		
	1999	2000	2001
Research and development expense	$5,566,897	$4,072,819	$3,313,456
General and administrative expense	3,478,968	4,613,688	1,337,283
Total	$9,045,865	$8,686,507	$4,650,739

Included in the above is $131,250 that was paid in the form of shares 20,669 of deCODE common stock that were issued in March 2002. Compensation related to these shares has been expensed in December 2001 and is included in accrued expenses at December 31, 2001.

In addition, general and administrative expenses in the year ended December 31, 2000 include charitable contributions of 150,000 shares of Series B preferred stock amounting to $3.0 million and of 8,000 shares of common stock amounting to $193,992 and general and administrative expenses in the year ended December 31, 2001 include a charitable contribution of 5,000 shares of its common stock amounting to $52,500.

Defined Contribution Benefits

deCODE contributes to relevant pension organizations for personnel in Iceland. Certain other discretionary contributions may be made. Contributions are based on employee salaries paid and deCODE has no further liability in connection with these plans. Total contributions were $747,939, $979,306, and $1,434,368 for the years ended December 31, 1999, 2000 and 2001, respectively.

Effective December 1, 2001, deCODE adopted a 401(k) pension plan available to eligible full-time employees in the United States. deCODE made contributions of $773 in the year ended December 31, 2001.

Income Taxes

Deferred income taxes include the net effects of temporary differences between the carrying amounts for assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

deCODE's deferred tax assets (liabilities) are comprised of the following:

	December 31, 2000	December 31, 2001
Net Operating Losses	$ 6,221,000	$ 5,583,000
Capitalized Research and Development Costs	6,375,000	5,064,000
Deferred Revenue	908,000	881,000
Fixed Asset Depreciation	(616,000)	837,000
Patents	(710,000)	(355,000)
Other	268,000	503,000
Total deferred tax asset, net	12,446,000	12,513,000
Valuation Allowance	(12,446,000)	(12,513,000)
	$ 0	$ 0

The table below reconciles the expected U.S. federal income tax rate to the recorded income tax rate :

	For the years ended December 31, 2000	2001
Income taxes at federal statutory rates	(34.0)%	(34.0)%
State income taxes, net of federal benefit	0.0	(0.6)
Non-deductible equity compensation	7.4	3.8
Non-deductible goodwill amortization	4.0	0.8
Foreign rate differential	10.9	3.6
Foreign deferred tax asset adjustment	0.0	15.0
Foreign inflation adjustment	(0.6)	(8.9)
Foreign currency adjustment	(0.6)	20.1
Other	0.7	0.1
Net Change in valuation allowance	12.2	0.1
	0.0%	0.0%

As of December 31, 2001, deCODE had U.S. federal net operating loss ("NOL") carryforwards of approximately $4.1 million that may be available to offset future U.S. federal income tax liabilities and expire at various dates through 2021. Also as of December 31, 2001, deCODE's Icelandic subsidiaries had NOL carryforwards of approximately $22.0 million that begin to expire in 2004. Management has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets and has established a full valuation allowance for such assets, which are comprised principally of net operating loss carryforwards and capitalized research and experimentation costs. Management re-evaluates the positive and negative evidence periodically.

Ownership changes, as defined in the Internal Revenue Code, may have limited the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income. Subsequent ownership changes could further affect the limitation in future years.

In December 2001, the Government of Iceland enacted a change in the corporate tax rate from 30% to 18% with an effective date of January 1, 2002. As a result, the carrying value of the Icelandic deferred tax assets at December 31, 2001 were re-computed at the 18% rate, resulting in a decrease in deCODE's deferred tax assets and liabilities which was offset by a reduction in the tax valuation allowance of $7.2 million. For

Icelandic tax purposes, the Income Tax and Capital Tax Act of 1981, as amended, contains provisions that stipulate that an inflation adjustment be taken into account in the annual reporting of taxable income. For the years ended December 31, 2000 and 2001, the adjustment to taxable income was a benefit of approximately $0.7 million and 14.1 million, respectively. For periods beginning on or after January 1, 2002, the Income Tax and Capital Tax Act was amended to remove these provisions. During the year ending December 31, 2001, there was a foreign currency adjustment caused by the devaluation of the Icelandic krona against the U.S. dollar, resulting in a decrease in deCODE's deferred tax assets and liabilities which was offset by a reduction in the tax valuation allowance of $32.4 million.

Subsequent Events

MediChem. In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange to be accounted for as a purchase transaction. The acquisition gives deCODE capabilities in chemistry and structural proteomics that will be used in the implementation of its strategy of turning its targets identified by applying population genomics to common diseases into novel drugs for the market.

Under the terms of the merger agreement, MediChem shareholders received 0.3099 shares of newly issued deCODE common stock in exchange for each MediChem share of common stock, or approximately 8.4 million shares of deCODE common stock. In addition, options to purchase approximately 1.9 million shares of MediChem common stock that vested immediately upon consummation of the merger have been assumed by deCODE, resulting in the issuance of approximately 0.6 million options to purchase deCODE common stock. Under the terms of the merger agreement, deCODE will also grant a further 136,356 deCODE stock options to certain employees of MediChem under the 1996 Equity Incentive Plan.

The total cost of the acquisition is currently estimated to be $86.8 million consisting of the following:

	(in thousands)
Market value of deCODE common stock issued in exchange for outstanding MediChem common stock	$79,677
Fair value of MediChem employee stock options assumed	3,860
Estimated direct transaction costs of deCODE, consisting primarily of financial advisory, legal and accounting fees	3,300
	$86,837

deCODE's common stock has been valued using an average price for the period from three days before to three days after the companies reached agreement and the proposed merger was announced. The fair value of options to be assumed is estimated using the Black-Scholes method. The terms of MediChem's outstanding stock options provided that the options fully vested upon a change of control; that is, there were no unvested options upon consummation of this merger.

deCODE will account for the acquisition of MediChem under the purchase method of accounting for business combinations as defined by Statement of Financial Accounting Standard No. 141 "Business Combinations" and, accordingly, the purchase price will be allocated to the tangible and identifiable intangible assets of MediChem acquired by deCODE and liabilities of MediChem assumed by deCODE on the basis of

their fair values on the acquisition date. deCODE has preliminarily allocated the total cost of the merger to the net assets of MediChem as follows:

	(in thousands)
Net tangible assets acquired	$22,095
In-process research and development	483
Identifiable intangible assets	5,975
Goodwill	58,284
	$86,837

The allocation of the purchase price is preliminary and deCODE will be finalizing independent valuations of MediChem's assets and liabilities and, as such, the preliminary allocation of the purchase price could be subject to significant change. Intangible assets of MediChem identified to-date include developed technology, patents, customer and other contracts and agreements that have estimated useful lives ranging from three to ten years. The amounts attributed to MediChem's tangible assets and liabilities acquired, as well as to identifiable intangible assets, their estimated useful lives and the amount attributed to acquired in-process research and development will ultimately be determined upon completion of the appraisals and, therefore, may be different from that presented above.

F.Hoffman-La Roche. In January 2002, deCODE and Roche entered into a new Collaboration and Cross-License Agreement. This new, three-year alliance leverages deCODE's expanding capabilities in drug discovery into developing novel treatments for common diseases. Under this new alliance, Roche will provide research funding for a minimum of the next two years for deCODE to conduct downstream research in a selection of four diseases, with the goal of using the targets identified to discover and develop new therapeutic compounds and to take these compounds into clinical trials. Also, deCODE will receive development and regulatory approval milestone payments for therapeutic drug compounds developed pursuant to the agreement as well as royalties on Roche's sales of drugs developed under the agreement. Additionally, deCODE will pay Roche royalties should deCODE develop and market drugs for certain common diseases.

Selected Quarterly Data (Unaudited)

The following is a summary of quarterly financial results:

	For the Three Months Ended			
	March 31	June 30	September 30	December 31
Fiscal 2000				
Revenue	$ 4,618,386	$ 3,828,527	$ 5,576,112	$ 7,522,631
Operating loss	7,562,319	10,937,571	10,560,229	10,509,529
Net loss	6,898,139	10,391,448	7,575,366	6,253,550
Basic and diluted net loss per share	1.25	1.94	0.23	0.14
Fiscal 2001				
Revenue	$ 5,032,986	$ 6,197,906	$ 9,720,955	$10,598,779
Operating loss	18,185,871	13,861,572	9,946,666	10,654,063
Net loss	16,087,763	12,290,505	8,867,423	10,592,780
Basic and diluted net loss per share	0.37	0.28	0.20	0.24

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

(Amendment No. 1)

FOR ANNUAL AND TRANSITION REPORTS
PURSUANT TO SECTIONS 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001,

or

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

Commission File No. 000-30469

deCODE genetics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	04-3326704
(State or jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

Sturlugata 8, Reykjavik, Iceland
(Address of principal executive offices)

+ 354-570-1900
(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
None	None

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, $.001 par value
(Title of Class)

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

State the aggregate market value of the equity stock held by non-affiliates of the Registrant: $236,684,745 at March 31, 2002 based on the last sales price on March 28, 2002, the last trading day before that date.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock, as of March 31, 2002: 53,515,390 shares of common stock $.001 par value (including 8,362,893 shares of common stock which the former shareholders of MediChem Life Sciences, Inc. ("MediChem") have the right to receive under the terms of the Agreement and Plan of Merger, dated as of January 7, 2002, by and between deCODE genetics, Inc., Saga Acquisition Corp. and MediChem).

Documents incorporated by reference

None

EXPLANATORY NOTE

deCODE genetics, Inc. hereby amends its Annual Report on Form 10-K for the year ended December 31, 2001, as filed with the Securities and Exchange Commission on March 27, 2002, for the sole purpose of adding Items 10-13 of Part III.

PART III

Item 10. *Directors and Executive Officers of the Registrant*

Directors

Our Certificate of Incorporation requires that the Board of Directors be divided into three classes. The members of each class of directors serve for staggered three-year terms. The term of the Class I director, Sir John Vane, expires at our Annual Meeting in 2002, the term of the Class II directors, Jean-Francois Formela and Andre Lamotte, expires at the Annual Meeting in 2003, and the term of the Class III directors, Kari Stefansson and Terrance G. McGuire, expires at the Annual Meeting in 2004. Each of the current directors holds office until the expiration of their respective terms and until their respective successors are elected and qualified, or until death, resignation or removal.

The name and age of each of the directors, their respective positions and the period during which each such individual has served as a director are set forth below. Additional biographical information concerning each of the directors follows the table.

Director Name	Age	Position(s)	Since
Kari Stefansson(1)	53	Director, Chairman of the Board, Chief Executive Officer and President	1996
Terrance G. McGuire(1)(2)(3)	46	Director and Vice-Chairman	1996
Jean-Francois Formela(2)(3)	45	Director	1996
Andre Lamotte	53	Director	1996
Sir John Vane(2)	75	Director	1997

(1) Member of Nominating Committee

(2) Member of Audit Committee

(3) Member of Compensation Committee

Kari Stefansson, M.D., Dr. Med. has served as our President, Chief Executive Officer and a Director since he co-founded deCODE in August 1996. Dr. Stefansson was appointed to serve as the Chairman of our Board of Directors in December 1999. He also served as our Secretary from August 1996 to March 2001. From 1993 until April 1997, Dr. Stefansson was a professor of Neurology, Neuropathology and Neuroscience at Harvard University. In addition, from 1993 through December 1996 he was Director of Neuropathology at Beth Israel Hospital in Boston, Massachusetts. From 1983 to 1993, he held faculty positions in Neurology, Neuropathology and Neurosciences at the University of Chicago. Dr. Stefansson received his M.D. and Dr. Med. from the University of Iceland in 1976 and 1986, respectively.

Terrance G. McGuire has served as a director since August 1996 and as Vice-Chairman of the Board of Directors since April 2000. He currently serves as Chairman of three board committees: the Compensation Committee, the Audit Committee and the Nominating Committee. He previously served as our assistant secretary from January 1998 to October 2000. Since March 1996, he has been a Founding General Partner of Polaris Venture Partners. Since 1992, he has served as a general partner of Alta V Management Partners L.P., which is the general partner of Alta V Limited Partnership. He is a director of Akamai Technologies, Inc., Aspect Medical Systems, Inc., Inspire Pharmaceuticals, Inc., Wrenchead.com, Inc., Paradigm Genetics, Inc. and several other private healthcare and information technology companies. Mr. McGuire received his B.S. in Physics and Economics from Hobart College, his M.S. in Engineering from Dartmouth College and his M.B.A. from the Harvard Business School.

Jean-Francois Formela, M.D. has served as a director since August 1996, and as a member of our Audit Committee since February 1998. Dr. Formela is a Senior Principal of Atlas Venture. Before joining Atlas Venture in 1993, Dr. Formela was Senior Director, Medical Marketing and Scientific Affairs at Schering-Plough in the U.S. where he also held biotechnology licensing and marketing responsibilities. Dr. Formela is a director of Biochem Pharma Inc., Ciphergen Biosystems, Inc., Exelixis, Inc., Variagenics, Inc. and several

private companies. Dr. Formela holds an M.D. from Paris University School of Medicine and an M.B.A. from Columbia Business School.

Andre Lamotte has served as a director since August 1996. In 1989, Dr. Lamotte founded Medical Science Partners, or MSP, which specializes in early stage life sciences investments, in affiliation with Harvard University, and has served as the Managing General Partner since then. Before founding MSP, Dr. Lamotte served as a General Manager at Pasteur Merieux from April 1983 to April 1988. He also currently serves as the Managing General Partner of Medical Science Partners II, L.P. and Medical Science II Co-Investment, L.P. and is the General Partner of New Medical Technologies. Dr. Lamotte is a director of Ascent Pediatrics, Inc. and Inspire Pharmaceuticals, Inc. Dr. Lamotte holds a Ph.D. in chemistry from the Massachusetts Institute of Technology and an M.B.A. from Harvard University.

Sir John Vane has served as a director since January 1997. In 1982, Sir John received the Nobel Prize in Physiology or Medicine for his work in prostaglandins and for discovering the mode of action of aspirin. As a consultant to Squibb, he initiated the program on inhibiting angiotensin-converting enzyme which led to the marketing of Captopril. During 12 years as Director of Research and Development at the Welcome Foundation, he oversaw the development of Tracrium, Flolan, Zovirax and Lamictal. In 1986, he founded the William Harvey Research Institute and built the Institute to over 100 members, first as Chairman, then as Director General, and, since 1997, as Honorary President. Sir John graduated with a degree in Chemistry from Birmingham University, obtained a D.Phil and D.Sc in Pharmacology from Oxford University, and spent 20 years in academic research. Sir John acts as a consultant to, and board member of, several pharmaceutical and biopharmaceutical companies. Sir John also has served as a director of Vane Associates since 1997. He became a Fellow of the Royal Society in 1974, was knighted in 1984 and has received numerous other honorary fellowships and doctorates.

Executive Officers Who Are Not Directors

The name, age and position of each person who is currently serving as an executive officer (who is not also a director) is listed below, followed by summaries of their backgrounds and principal occupations. Executive officers are elected annually, and serve at the discretion of the Board of Directors.

Name	Age	Position
Hannes Smarason	34	Executive Vice President and Senior Business and Finance Officer
Jeffrey Gulcher	42	Vice President, Research and Development
Mark Gurney	47	Vice President, Pharmaceutical Discovery
Lance Thibault	35	Chief Financial Officer and Treasurer
Michael Young	50	Vice President, Business Development
Kristjan Erlendsson	52	Vice President, Clinical Collaborations
Hakon Gudbjartsson	36	Vice President, Informatics

Hannes Smarason has served as our Executive Vice President and Senior Business and Finance Officer since March 2000. From March 1999 to March 2000, he served as our Senior Vice President, Chief Business Officer and Treasurer and from January 1997 to March 1999, he served as our Chief Financial Officer and Vice President, Business Development. Before joining us, he worked with McKinsey & Co. in Boston from 1992 through December 1996 as a consultant. Mr. Smarason received his B.S. in Mechanical Engineering and Management from the Massachusetts Institute of Technology and his M.B.A. from the Massachusetts Institute of Technology Sloan School of Management.

Jeffrey Gulcher, M.D., Ph.D. has served as our Vice President, Research and Development since he co-founded the company in August 1996. Dr. Gulcher was on staff in the Department of Neurology at Beth Israel Hospital in Boston, Massachusetts and Harvard University Medical School from June 1993 to October 1998. Dr. Gulcher received his Ph.D. and M.D. from the University of Chicago in 1986 and 1990, respectively, and completed his neurology residency at the Longwood Program of the Neurology Department of the Harvard Medical School in 1996.

Mark Gurney, Ph.D. joined us in August 2000 and was elected our Vice President, Pharmaceutical Discovery in October 2000. He was formerly Director, Genomics Research at Pharmacia Corporation. Prior to his positions at Pharmacia, Dr. Gurney held academic appointments in the Department of Pharmacological and Physiological Sciences at the University of Chicago and in the Department of Cell, Molecular and Structural Biology at the Northwestern University Medical School. He received his B.A. in Biology from the University of California at San Diego in 1975 and his Ph.D. from the California Institute of Technology in 1980. In 1994, he completed his M.B.A. at Northwestern University's Kellogg School of Management.

Lance Thibault joined deCODE in February 2001 and was named Chief Financial Officer and Treasurer in June 2001. Before joining us he was a Director with the Global Capital Markets practice of PricewaterhouseCoopers in London, England since 1997. Mr. Thibault received a B.S. in Accountancy from Bentley College in 1988 and is a CPA.

Michael W. Young was elected to serves as our Vice President, Business Development in June 2001. Prior to joining deCODE, Mr. Young had been Vice President of Commercial Development for GTC, a subsidiary of Genzyme Corporation, since 1995. Mr. Young has held marketing, sales and business development positions with other emerging biotech and biopharm companies, including Millipore Corporation, Ventrex Laboratories, Verax Corporation and PerSeptive Biosystems. Subsequent to military service, Mr. Young completed his BA in biology from Canisius College in 1974, attended the University of Miami and Nova University (MS 1976) and attended graduate school at the Harvard University School of Public Health, Department of Nutrition.

Kristjan Erlendsson, M.D. joined us in September 1998 to oversee collaboration projects and was elected to serve as our Vice President, Clinical Collaborations in March 1999. Since April 2002, Dr. Erlendsson has been in charge of the Icelandic Health Sector Database project at deCODE. From March 1996 to August 1998, he was Director of Hospital Affairs at Iceland's Ministry of Health and Social Security. Since 1988, Dr. Erlendsson has served as Executive Director of Medical Education at the University of Iceland. He has also been a Consultant in Internal Medicine, Allergy and Clinical Immunology at Landspitalinn University Hospital since 1985. Dr. Erlendsson received his M.D. from the University of Iceland in 1976, trained in internal medicine at the University of Connecticut-New Britain General Hospital from 1978 to 1981, and did a postdoctoral fellowship in allergy and clinical immunology at Yale University-Yale New Haven Hospital from 1981 to 1984.

Hakon Gudbjartsson, Ph.D. has served as our Vice President, Informatics since March 2000. In 1996, Dr. Gudbjartsson joined us to direct our Department of Informatics. Dr. Guobjartsson received his B.Sc. in electrical engineering in 1990 and his M.Sc. in electrical engineering and computer science in 1992 from the University of Iceland. In 1996, he received his Ph.D. from the Massachusetts Institute of Technology and performed post-doctoral research concerning magnetic resonance imaging at Brigham and Woman's Hospital in Boston until he joined us.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our executive officers and directors and persons who beneficially own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the Securities and Exchange Commission and the Nasdaq National Market. Based solely upon our review of the copies of such Forms 3 and 4 we have received during the most recent fiscal year and Form 5 and amendments thereto furnished to us, we believe that all of our directors, officers and greater than 10% stockholders, have timely filed all required reports.

Item 11. *Executive Compensation*

The following table sets forth information concerning the annual and long-term compensation for services to us for each of the fiscal years ended December 31, 1999, 2000 and 2001 of those persons who served as (i) our chief executive officer during 2001 and (ii) our other four most highly compensated executive officers who were serving as such as of December 31, 2001 (the "Named Executive Officers"):

Summary Compensation Table

Name And Principal Position	Annual Compensation			Long-Term Compensation	All Other Compensation
	Year	Salary(1)	Bonus	Stock Option Awards (Number Of Shares Underlying Options)	
Kari Stefansson	2001	$372,597	—	—	$45,062(2)
Chairman, President, Chief	2000	267,930	—	—	38,864(2)
Executive Officer and	1999	304,551	—	—	43,686(2)
Secretary					
Hannes Smarason	2001	$204,696	—	—	—
Executive Vice President	2000	125,896	$100,000	—	—
and Senior Business and	1999	146,597	—	260,000	—
Finance Officer					
Jeffrey Gulcher	2001	$203,096	$ 69,445	—	$12,215(2)
Vice President, Research	2000	150,000	50,000	—	—
and Development	1999	162,323	—	—	—
Mark Gurney(3)	2001	$148,714	$ 65,000	—	$10,498(2)
Vice President,	2000	55,346	—	100,000	1,224(2)
Pharmaceutical Discovery					
Michael Young(4)	2001	$137,083	$ 48,500	100,000	—
Vice President, Business Development					

(1) Includes compensation paid in Icelandic kronas. Figures reflect exchange rates of 103.20, 84.70 and 72.55 Icelandic kronas to $1.00, the exchange rates determined by the Central Bank of Iceland on December 31, 2001, 2000 and 1999, respectively.

(2) Includes the value of housing and an automobile provided by us for the benefit of the Named Executive Officer.

(3) Mr. Gurney was elected in October 2000.

(4) Mr. Young was elected in June 2001.

The following table sets forth certain information concerning grants of stock options during the fiscal year ended December 31, 2001, to the Named Executive Officers:

Option Grants in Last Fiscal Year

Name	Number of Securities Underlying Options Granted	Percentage of Total Options Granted to Employees in Fiscal 2001	Exercise or Base Price Per Share	Expiration Date	Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term(1) 5%	10%
Kari Stefansson	0	—	—	—	—	—
Hannes Smarason	0	—	—	—	—	—
Jeffrey Gulcher	0	—	—	—	—	—
Mark Gurney	0	—	—	—	—	—
Michael Young	100,000	8.7%	$7.42	6/19/11	$467,460	$1,179,780

(1) The dollar amounts under these columns are the result of calculations assuming that the price of common stock on the date of the grant of the option increases at the hypothetical 5% and 10% rates set by the Securities and Exchange Commission and therefore are not intended to forecast possible future appreciation, if any, of our stock price over the option term of 10 years.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

Name	Shares Acquired on Exercise(#)	Value Realized	Number of Securities Underlying Unexercised Options at December 31, 2001 Exercisable/Unexercisable		Value of Unexercised in-the-Money Options at December 31, 2001(1) Exercisable/Unexercisable	
Kari Stefansson	0	—	0	0	$ 0	$ 0
Hannes Smarason	0	—	0	0	0	0
Jeffrey Gulcher	0	—	0	0	0	0
Mark Gurney	0	—	33,333	66,667	0	0
Michael Young	0	—	30,000	70,000	71,400	166,600

(1) Based on the closing price on the Nasdaq Stock Market at December 31, 2001 of $9.80.

Compensation Arrangements

Director Compensation

Our directors do not receive cash compensation for services on our Board of Directors or any board committee, except as follows. Pursuant to the terms of an agreement dated December 1, 1997 between deCODE and Vane Associates (of which Sir John Vane is a partner), Vane Associates receives $2,000 per day for each Board meeting that Sir John attends. We reimburse all directors for their expenses incurred in connection with attendance at Board of Directors and committee meetings.

Employment Agreements

At the time of commencement of employment, our executive officers generally receive offer letters specifying basic terms and conditions of their employment. We have entered into an employment agreement with Mr. Young which stipulates that if we terminate his employment other than for "cause": (a) we are required to make a lump sum severance payment to him equal to one year of his base salary then in effect; and (b) options to purchase the lesser of (i) 20,000 shares of our common stock or (ii) the number of shares of our common stock underlying his remaining unvested options, shall become immediately exercisable.

Pursuant to the terms of his agreement, Mr. Young's base salary is $235,000 per year, and he is eligible for a bonus at the determination of the Compensation Committee.

Our executive officers have signed agreements which require them to maintain the confidentiality of our information and to assign inventions to us. These agreements also prohibit these officers from competing with us during the terms of their employment and for two years thereafter by engaging in any capacity in any business which is, or on the date of termination of their employment was, competitive with our business.

Defined Contribution Plans

In accordance with applicable Icelandic law, deCODE contributes to relevant pension organizations for personnel in Iceland. Certain other discretionary contributions may be made. Contributions are based on employee salaries paid and deCODE has no further liability in connection with these plans. Total contributions of $1,434,368 were made for the year ended December 31, 2001.

Effective December 1, 2001, deCODE adopted a 401(k) plan (the "401(k) Plan") available to eligible full-time employees in the United States. Pursuant to the 401(k) Plan, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit ($11,000 in 2002) and have the amount of such reduction contributed to the 401(k) Plan. The 401(k) Plan requires that we make additional matching contributions to the 401(k) Plan on behalf of participants in the 401(k) Plan at a rate of 50% of employee contributions up to a maximum of 6% of their base salary. deCODE made contributions of $773 in the year ended December 31, 2001. Contributions by employees to the 401(k) Plan and income earned on such contributions are not taxable to employees until withdrawn from the 401(k) Plan.

Compensation Committee Interlocks and Insider Participation

The current members of our compensation committee are Mr. McGuire and Dr. Formela, each of whom served on the compensation committee of the Board of Directors during 2001. Mr. McGuire served as deCODE's assistant secretary from January 1998 until October 2000. Otherwise, no member of the compensation committee was at any time during 2001, or formerly, an officer or employee, and no member of the compensation committee had any relationship with us requiring disclosure under Item 404 of Regulation S-K under the Exchange Act of 1934, as amended. No executive officer has served as a director or member of the compensation committee (or other committee serving an equivalent function) of any other entity, one of whose executive officers served as a director of or member of our compensation committee.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The following table sets forth certain information as of March 31, 2002, except as otherwise noted, regarding the beneficial ownership of our common stock by (i) each current director, (ii) each Named Executive Officer, (iii) all of our directors and executive officers as a group, and (iv) each person known to be the beneficial owner of more than five percent of the outstanding shares of the common stock.

Name And Address Of Beneficial Owner	Amount and Nature of Beneficial Ownership(1)	Percent of Outstanding Common Stock(2)
SAPAC Corporation Ltd(3) 124 Grenzacherstrasse CH-4070 Basel	4,483,334	8.3%
Kari Stefansson c/o deCODE genetics, Inc. Lynghals 1 Reykjavik, Iceland	3,125,292	5.8%
Hannes Smarason	560,000	1.1%
Jeffrey Gulcher	481,200	*
Mark Gurney(4)	43,750	*

Name And Address Of Beneficial Owner	Amount and Nature of Beneficial Ownership(1)	Percent of Outstanding Common Stock(2)
Michael Young(5)	38,333	*
Jean-Francois Formela(6)	2,340,082	4.4%
Terrance G. McGuire(7)	1,380,626	2.6%
Andre Lamotte(8)	160,740	*
Sir John Vane(9)	60,000	*
All directors and executive officers as a group (12 persons)(10)	8,415,023	15.6%

* Comprises less than one percent of the outstanding common stock.

(1) The number of shares beneficially owned by the individuals and entities listed in the table is determined in accordance with the rules of the United States Securities and Exchange Commission, and may not be conclusive as to ownership of those securities for any other purpose. Under those rules, an individual (or entity) is deemed to beneficially own shares of common stock as to which the individual currently has certain sole or shared powers or as to which the individual can acquire such powers within 60 days by the exercise of any option, warrant or other right. We have been advised that each stockholder listed in the table has sole voting and dispositive power with respect to such shares unless otherwise noted in the footnotes below.

(2) Applicable percentage of ownership is based on 53,515,390 shares of common stock outstanding on March 31, 2002 (including 8,362,893 shares of common stock which the former shareholders of MediChem Life Sciences, Inc.("MediChem") have the right to receive under the terms of the Agreement and Plan of Merger, dated as of January 7, 2002, by and between deCODE genetics, Inc., Saga Acquisition Corp. and MediChem).

(3) SAPAC is successor-in-interest to Roche Finance Ltd. Includes 4,066,667 shares of common stock and 416,667 shares of common stock issuable upon exercise of warrants owned by SAPAC. Roche Holdings Ltd exercises voting and investment control over the shares held by SAPAC.

(4) Represents shares of common stock issuable upon exercise of options held by Mr. Gurney.

(5) Represents shares of common stock issuable upon exercise of options held by Mr. Young.

(6) Includes (a) 1,042,541 shares of common stock owned by Atlas Venture Fund II, L.P., and 125,000 shares of common stock issuable upon exercise of warrants owned by Atlas Venture Fund II, L.P., and (b) 1,042,541 shares of common stock owned by Atlas Venture Europe Fund B.V., and 125,000 shares of common stock issuable upon exercise of warrants owned by Atlas Venture Europe Fund B.V., a wholly owned subsidiary of Atlas InvesteringsGoep N.V., which is a limited partner in Atlas Venture Fund II L.P. The voting and investment discretion over the shares held by Atlas Venture Fund, II, L.P. is exercised by the general partners of Atlas Venture Associates, II, L.P., its sole general partner. Dr. Formela is a general partner of Atlas Venture Associates II, L.P. along with Barry J. Fidelman and Christopher J. Spray. Dr. Formela and the other general partners of Atlas Venture Associates II, L.P. disclaim beneficial ownership of all shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein. The voting and investment discretion over the shares held by the Atlas Venture Europe Fund B.V. is exercised by the managing directors of AIG, Gerard H. Montanus and Hans Bosman.

(7) Includes (a) 1,082,854 shares of common stock owned by Polaris Venture Partners, L.P. and 189,496 shares of common stock issuable upon exercise of warrants owned by Polaris Venture Partners, L.P., (b) 63,046 shares of common stock owned by Polaris Venture Partners Founders' Fund, L.P. and 11,337 shares of common stock issuable upon exercise of warrants owned by Polaris Venture Partners Founders' Fund, L.P., and (c) 33,893 shares of common stock held by Terrance McGuire TTEE, Terrance McGuire Trust — 1999. Polaris Venture Management Co., L.L.C., the general partner of both Polaris Venture Partners, L.P. and Polaris Venture Partners Founders' Fund, L.P., exercises sole voting and investment power with respect to the shares held by the funds. Mr. McGuire is a member of Polaris

Venture Management Co., L.L.C., and as such may be deemed to share voting and investment power for the shares held by the funds.

(8) Includes 158,745 shares of common stock held by Medical Science II Co-Investment, L.P. and 1,995 shares of common stock held by Medical Science Management Co., Inc. Mr. Lamotte is the Managing General Partner of Medical Science II Co-Investment, L.P. and President of Medical Science Management Co., Inc.

(9) Includes 30,000 shares of common stock and 30,000 shares of common stock issuable upon exercise of options held by Sir John.

(10) Includes an aggregate 562,916 of shares of common stock underlying warrants and stock options granted to all directors and executive officers as a group which will have vested within sixty days after March 31, 2002. Also contains 225,000 shares of common stock held be executive officers who are not named executive officers.

Item 13. *Certain Relationships and Related Transactions*

In January 1998 and August 1999, we granted to Hannes Smarason, our Executive Vice President and Senior Business and Finance Officer, options to purchase 300,000 and 260,000 shares of our common stock, respectively. Mr. Smarason exercised his options pursuant to an early exercise right. At the times of exercise, Mr. Smarason delivered to us promissory notes in the principal amounts of $59,700 and $1,462,240. Each of these promissory notes bore interest in the amount of six percent (6%) per annum. Mr. Smarason's promissory note in the principal amount of $59,700, as initially issued and as amended in March 1999, was due and payable on January 1, 2001. Such promissory note was amended and restated as of January 1, 2001 to provide that no additional interest would accrue following such date and to extend the term of the note to January 1, 2007. Mr. Smarason's other promissory note is due and payable on November 1, 2003. The shares that Mr. Smarason purchased in 1999 vest at the rate of 1/48 on the first day of each month, commencing December 1, 1999. As of December 31, 2001, the principal and accrued interest on the notes that Mr. Smarason delivered in 1998 and 1999 was $70,798 and $1,846,339.

On October 15, 2001, we granted Kristjan Erlendsson, VP Clinical Collaboration, a loan of $75,000, payable on October 15, 2002. Dr. Erlendsson delivered to us a promissory note in the principal amount of $75,000 which bore 12-month LIBOR interest, as determined for US dollars at any time, with a margin of six percent (6%) of the due amount or called-in amount from the due date to the date of payment. The loan is secured by the pledge of Dr. Erlendsson's 125,000 shares of deCODE common stock. As of December 31, 2001, the principal and accrued interest on the note that Dr. Erlendsson delivered in October was $76,012.

Kari Stefansson, our Chairman, Chief Executive Officer and President, and Hannes Smarason our Executive Vice President and Senior Business Officer, are beneficial owners of 17.8% and 19.7%, respectively, of the outstanding shares of Prokaria ehf., an Icelandic company. In addition, Dr. Stefansson is Chairman of the Board, and Mr. Smarason is a director, of Prokaria. On October 2, 2000, Islensk erfoagreining ehf. and Prokaria entered into a research collaboration and license agreement on terms we believe to be no less favorable than those we could have obtained from an unrelated third party. Under the terms of the agreement, we sold certain intellectual property rights relating to thermophilic organisms, including a patent application, to Prokaria in exchange for cash, royalties on any revenues Prokaria may receive from the rights related to the patent application, and a non-transferable license regarding rights arising under the patent application during the term of the patent. In addition, we agreed to provide certain sequencing and advisory services to Prokaria in exchange for appropriate fees. During the fiscal year ended December 31, 2001, we recognized $322,021 in revenue with respect to such services.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized this 30th day of April 2002.

DECODE GENETICS, INC.

/s/ KARI STEFANSSON

Kari Stefansson
Chairman, President and
Chief Executive Officer

corporate information

Board of Directors

Kári Stefánsson
Chairman, President and
Chief Executive Officer
deCODE genetics, Inc.

Terrance G. McGuire
General Partner
Polaris Venture Partners and Alta
V Management Partners L.P.

Sir John Vane
Nobel Laureate
Honorary President
William Harvey Research Institute

André Lamotte
Managing General Partner
Medical Science Partners

Jean-Francois Formela
General Partner
Atlas Venture Associates II, L.P.

Company Officers

Kári Stefánsson
Chairman, President and
Chief Executive Officer

Hannes Smárason
Executive Vice President and
Senior Business Officer

Lance Thibault
Chief Financial Officer and
Treasurer

Jeffrey Gulcher
Vice President,
Research and Development

Mark Gurney
Vice President,
Pharmaceutical Discovery

Michael Young
Vice President,
Business Development

Kristján Erlendsson
Vice President,
Clinical Collaborations

Hákon Guðbjartsson
Vice President,
Informatics

Corporate Headquarters

Sturlugata 8
IS-101 Reykjavik
ICELAND
Tel: +354 570 1900
Fax: +354 570 1903
www.decode.com

Transfer Agent
and Registrar
The Bank of New York
101 Barclay Street 11W
New York, NY 10007
1-800-524-4458

Form 10-K Annual Reports
Additional copies of the Annual Report on Form 10-K, as filed with the Securities and Exchange Commission, are available at no charge by calling +354 570 1900 or by writing to:

deCODE genetics, Inc.
Sturlugata 8
IS-110 Reykjavik
ICELAND

Contacts
Investor relations:
Public relations:
Business development: