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DECODE GENETICS INC



Annual Report 2003

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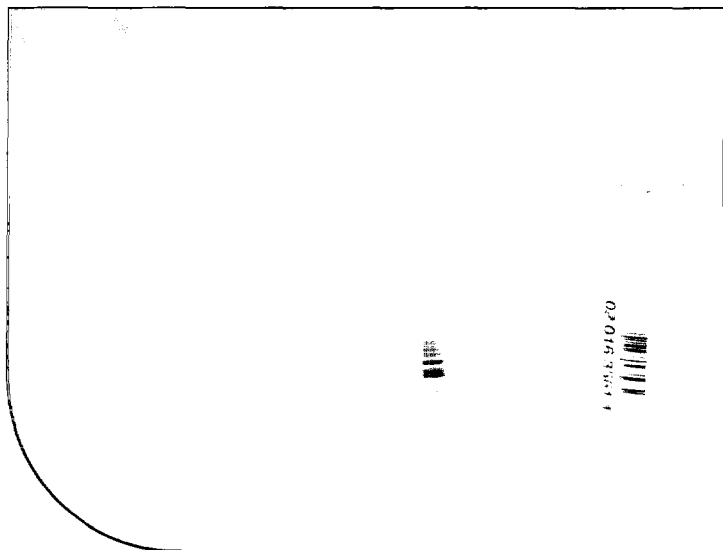
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deCODE genetics

... is a leader in applying human genetics
to the discovery and development of new
drugs for common diseases.

deCODE is delivering on the promise
of the new genetics™

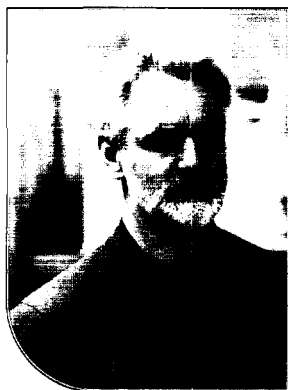


Selected 2003 Highlights

- deCODE identified variations in the gene encoding the 5-lipoxygenase activating protein, or FLAP, that confer twice the average risk of heart attack. The company subsequently in-licensed a developmental FLAP inhibitor, now known as DG031, originally developed for another indication. In early 2004 deCODE launched a Phase IIa trial to gauge the effect of different dose levels on key markers of inflammation. The results of this trial will be presented in the fall of 2004 and used in the design of a large, multi-center Phase III trial for the prevention of heart attack.
- deCODE in 2003 generated lead series of compounds against its target in peripheral arterial occlusive disease (PAOD) and began *in vivo* pharmacology studies. The company expects to file an IND for PAOD by late 2004 and to enter early stage clinical trials at the beginning of 2005.
- Under its alliance with Merck in obesity, deCODE announced the isolation of three genes in 2003. Common forms of these genes confer significant predisposition to obesity through different biological pathways. The companies are analyzing the genes and the pathways to select optimal targets for the development of new drugs.
- In 2003, deCODE completed high-throughput screening and initiated medicinal chemistry work on lead series of compounds to inhibit the activity of the company's PDE4D target in stroke.
- In schizophrenia, deCODE's screening campaign identified promising hits pointing towards the generation of lead series of compounds that may increase signaling between Neuregulin 1 and the ErbB4 receptor, key components of the pathway the company identified through its gene discovery work.
- In 2003, deCODE announced a number of milestones under its alliance with Roche Diagnostics to develop DNA-based diagnostic tests. Simple gene expression assays used in clinical trials conducted by deCODE predicted response to common asthma and hypertension drugs with an average accuracy of 85%. The companies also announced milestones related to deCODE's discoveries in the genetics of osteoporosis, heart attack, stroke and non-insulin dependent diabetes.
- In 2003, deCODE published a number of landmark papers on its scientific results. In a paper in *Nature Genetics* deCODE scientists described the isolation of PDE4D, the first gene ever linked to common forms of stroke. In November, *PLoS Biology* published deCODE's findings linking variations in the BMP2 gene to significantly increased risk of osteoporosis and osteoporotic fractures.
- In February, deCODE and Families of Spinal Muscular Atrophy launched an effort to develop effective treatment for SMA. Using promising compounds identified through previous FSMA-funded gene- and drug-discovery work, deCODE's Chicago-based pharmaceuticals group is working to identify the most promising lead compounds, optimize these compounds, and conduct the medicinal chemistry and scale-up work to develop a potentially effective new drug ready for clinical trials.



President's Letter



To Our Shareholders

In the past year deCODE has taken its world leadership in gene discovery into the clinic. Our business strategy has always been simple and ambitious: to use population genetics to identify genes and drug targets rooted in the basic biology of disease, and to turn these discoveries into new drugs. Our population approach to genetics has yielded an unrivalled number of genes and targets in diseases ranging from heart attack to cancer and we are now focused on meeting a second challenge: discovering and developing new drugs based upon these discoveries.

We have launched our first clinical trial, of DG031 for the prevention of heart attack, and are advancing an exciting pipeline of compounds in other indications towards the clinic. The same population resources that have given us an advantage in target discovery are also enabling us to implement a more efficient paradigm for clinical development.

But even the best pipeline is not enough; it is necessary also to have the infrastructure and financial wherewithal to take programs all the way through the development process to the market. Here, too, I believe we are in a very strong position. We have integrated capabilities that range from gene discovery to medicinal chemistry and clinical trials. We have built a business with the operational structure and financial resources to advance our pipeline on a sustainable basis. We are delivering on our strategy: to create and capture the upside from drug development for the company and its shareholders.

Drug Development

The goal of our gene discovery is to identify pathways and targets that can be used to develop better medicine. Our progress in developing drugs based upon our discoveries in genetics has been rapid. We now have eight programs in drug discovery and development and by the end of 2005 we expect to have four compounds in clinical trials.

Our most advanced program is in heart attack, and the pace of our progress in this work highlights the advantages our population approach can bring to the downstream development process. In late 2003, we in-licensed a compound – now known as DG031 – that had been taken through Phase II trials in another indication. In these earlier trials the compound was shown to be efficacious in inhibiting the activity of FLAP, the protein made by a gene deCODE has linked to significantly increased risk of heart attack. The compound was also shown to have a very satisfactory safety profile. By in-licensing we were able to launch a Phase IIa trial in Iceland in an exceptionally brief period of time – a matter of only months after the isolation of the gene.

This is not only our first clinical trial in a proprietary program, it also showcases the power of bringing our comprehensive population data to bear on clinical development. This is at the heart of what we call the Information-rich Clinical Trial™ (IRCT™). By recruiting patients with a history of heart attack whose genetic susceptibility through the leukotriene pathway is known, we have been able to design a compact and sensitive trial of relatively short duration to examine how DG031 affects biomarkers such as C-reactive protein, myeloperoxidase, and leukotrienes. By measuring these markers for inflammation in such a well-defined cohort, we believe we can gain a detailed understanding of how DG031 works. Based upon this data we then plan to design and conduct a highly sensitive Phase III IRCT™ for the prevention of heart attack that will require only a fraction of the number of participants that would be needed for a traditional phase III trial.

President's Letter

In our programs in stroke and asthma, we are also focused on leveraging the IRCT™ paradigm to bring swiftly into the clinic existing compounds, developed initially for other indications, that impact our proprietary targets. In stroke, our drug discovery group has demonstrated that inhibition of the PDE4D enzyme may provide a powerful and targeted means of reducing stroke risk. In asthma we have isolated a gene encoding a kinase target. *Haplotypes containing the gene confer a significantly increased risk of disease* and, crucially, of susceptibility to a severe form of asthma that may warrant stronger therapeutic intervention. In both programs we have thousands of participants in our research and a wealth of data that can be readily employed in the design and conduct of IRCTs™. We expect to have compounds in clinical trials in both programs in 2005.

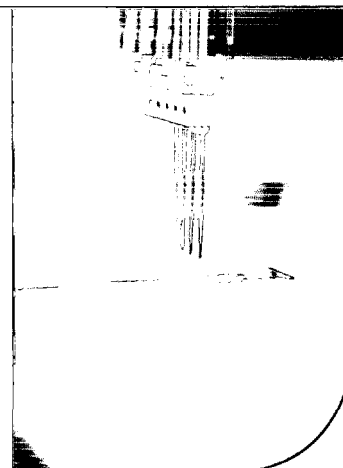
In PAOD, where we have done all of the drug discovery work in-house, we have advanced from the isolation of a gene to IND-enabling preclinical safety studies in less than three years. Our lead compound, D151746, is an inhibitor of a G-protein coupled receptor (GPCR) encoded by a gene that confers a two- to seven-fold increase in risk of developing the disease. The clinical development plan for the compound, following the IRCT™ model, will employ DNA-based diagnostic tests for disease-risk assessment as well as clinical and imaging studies of the effectiveness of the compound on controlling and possibly reversing atherosclerosis in the legs. We aim to file an IND on D151746 by the end of 2004 and begin Phase I clinical trials in the beginning of 2005.

These are only our lead proprietary programs; there are many more advancing close on their heels. And just as our genealogical approach is common to all of our gene discovery work, so too the IRCT™ design is a unique and powerful model for our clinical development strategy. We believe the IRCT™ approach offers two keys to better clinical development: increasing the sensitivity and specificity in clinical trials and effectively managing risk. We believe that by employing the IRCT™ approach we can reduce the cost of clinical development, deliver more personalized medicine, and maximize the commercial potential of developmental compounds.

We are not alone in this belief. In late 2004 we expect to begin the first IRCT™ under our latest alliance with Merck, an alliance through which we will be working to add value to and participate in the development of the next generation of Merck drugs. Building on our alliance with Merck in obesity, this is an enormous validation of our capabilities and an important opportunity for us to reap additional upside from the application of our population capabilities to drug development.

Expanding the Pipeline: Target Discovery

As we advance our pipeline of new drugs, we are also accelerating the discovery of new genes and targets to bring into drug development. At deCODE we have isolated genes in a dozen common diseases and have mapped genes in some 16 more. This is an unmatched record. These discoveries have provided us with targets in many of the biggest public health challenges, including stroke, heart attack, peripheral arterial occlusive disease (PAOD), asthma, hypertension, schizophrenia, osteoporosis, obesity, type 2 diabetes, prostate cancer and osteoarthritis.



President's Letter



Over the past year we have had the opportunity to share with the world a very detailed look at how our population genetics work in Iceland is providing us with a new understanding of the mechanisms of disease and pointing the way toward new and more effective medicine. In 2003, we published our breakthrough discoveries in the genetics of stroke and osteoporosis. We have also described our discovery that certain versions of the gene encoding the 5-lipoxygenase activating protein, or FLAP, double the relative risk of heart attack. To put the medical importance of this discovery in context, these haplotypes are more important risk factors even than LDL cholesterol. The at-risk versions of the FLAP gene appear to cause increased inflammation and instability in atherosclerotic plaques. As plaque rupture is the event directly preceding most heart attacks, we believe that a drug that can reduce inflammation modulated through this pathway may offer a highly targeted and effective means of reducing heart attack risk. Moreover, the same gene also confers a significantly increased risk of stroke, adding further to the therapeutic potential of the discovery.

Our findings in heart attack, like those in all of the diseases we are working on, underscore the power of using human population genetics as the basis for drug discovery. In every disease where we have isolated genes we have identified variants in multiple populations that are both present in a large proportion of patients and which confer significantly increased predisposition to disease. Our approach is taking us to the heart of the biology of disease in the only system that matters – in people.

Sound Financials From a Solid Business

deCODE's goal – the centerpiece of our business strategy – is to use genetics to bring drugs to the market. To this end we have put together a business that is enabling us to advance our pipeline while conserving the resources necessary to see us through the development process and capture the lion's share of the upside for the company and our shareholders.

Through our corporate alliances and service businesses we are leveraging our integrated capabilities to generate substantial near-term revenue streams. This income has helped us to build up and maintain infrastructure of a quality which is remarkable for a biopharmaceutical company of our size. At the same time we are reaping the fruits of our successful efforts to streamline our operational structure. This has enabled us to support our basic discovery work and core operations and conserve our cash resources for product development. The results have been clear. In 2003 we used only \$20 million in cash even as we brought our lead programs on towards the clinic, and we expect to do the same in 2004. Through our convertible bond offering in early 2004 we are well placed to finish the year with more than \$200 million to bring our programs forward.

In short, deCODE is delivering. We are focused on creating new and better means of treating the common diseases and to capturing the commercial potential coming out of our leadership in human genetics.

Kári Stefánsson
President, Chairman and CEO
deCODE genetics

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(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, 2003

or

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

For the transition period from _____ to _____

Commission File Number 000-30469

deCODE genetics, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

04-3326704

(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 12(b) of the Act:

Title of each class

None

Name of each exchange on which registered

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. ☐

Indicate by check mark whether the registrant is an accelerated filer (as defined by Rule 12b-2 of the Act). Yes ☒ No ☐

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based on the closing price of the common stock (\$3.15 per share), as of June 30, 2003, was \$168,635,779.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of March 1, 2004.

<u>Class</u>	<u>Number of Shares</u>
Common Stock, \$.001 par value	54,492,195

PART I

Item 1. *Business*

Overview

Based in Reykjavik, Iceland, deCODE is a population genetics company developing drugs and DNA-based diagnostics based upon its discoveries in the inherited causes of common diseases. Our population approach and resources have enabled us to identify genes directly involved in the development of many of the diseases that pose the biggest challenges to public health. We are focused on turning these findings into a pipeline of products which we believe will be able to combat the causes of disease, not just the signs and symptoms.

Our primary focus is on the discovery and commercialization of novel therapeutics based on genetic information identified in our population-based gene discovery work. Through the acquisition in 2002 of MediChem Life Sciences and its subsidiary, Emerald BioStructures, now our pharmaceuticals and biostructures groups, we have integrated capabilities for applying genetics findings to the development of drugs, both through our own programs and in alliance with corporate partners. We are also applying the links we have identified between genetic factors and disease to create genetic diagnostic tests that can be used to identify patients with increased risk of developing a disease or to predict which patients will respond well to a given drug therapy. We believe that such tests will become a standard part of healthcare within the coming decade, making it possible to gauge individual predisposition to particular illnesses and to design effective prevention strategies; to complement traditional clinical diagnosis; and to aid in the selection of appropriate therapeutics for patients. We are also marketing software systems we have developed for making correlations between genetic variation and disease and drug response.

The products we are developing include drugs, genetic diagnostic tests designed to identify genetic markers associated with elevated risk of developing a disease, and pharmacogenomic tests, which measure factors associated with differences in how individuals respond to a given drug therapy. Our drug and diagnostic development programs are based upon genes and related targets we have identified through our population genetics research. 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.

Utilizing our integrated population data and genotyping capabilities, we are able to efficiently conduct genome- and population-wide scans for the inherited causes of disease. Through the discovery of the principal genetic factors that predispose certain people to disease, we are able to gain an understanding of the key biological mechanisms involved in disease processes. These discoveries can also be used to develop DNA-based diagnostics for gauging disease predisposition, and to discover therapeutic compounds that may be able to disrupt the disease process by counteracting the basic mechanisms of disease.

Our strategy is to apply our own resources to turn discoveries from our internal projects into therapeutic or diagnostic products; to license our discoveries to others who will be required to pay us royalties on sales of any products developed using the results of our gene discovery programs; and to enter into collaborative arrangements for the development and marketing of products from these programs. While we work with partners to develop drugs in some of our programs, we also have the capacity to develop novel drug compounds internally utilizing our drug development capacity in Reykjavik and Chicago. Moreover, in our discovery programs we have identified proteins associated with elevated risk of developing a disease against which drugs have already been developed for other conditions by other companies. We expect to seek to license these compounds from the companies that developed them. If we can do this successfully, we would be able to eliminate the customarily lengthy process of developing new compounds and instead enter directly into clinical trials to test for the

efficacy of compounds in treating these conditions. This strategy has already been implemented with respect to our drug development program in myocardial infarction, where we have licensed worldwide rights to a compound originally developed by Bayer HealthCare AG for a different indication. The compound is now referred to as DG031. A further description of the myocardial infarction genetics program and our drug discovery and clinical development efforts are provided in the section "An Example of our Approach: Myocardial Infarction."

In addition to conducting work on our targets in our collaborative and internal programs, our pharmaceuticals group provides drug discovery work for our fee-for-service customers. Our other service offerings include protein crystallization products and protein structure analysis contract services, through our Seattle-based biostructures group; pharmacogenomics and clinical trials services through our wholly owned subsidiary Encode; and DNA analysis services through our genotyping laboratory in Reykjavik.

In Iceland, we have comprehensive population resources that enable our scientists to efficiently conduct genome- and population-wide scans to identify key genes and gene variations contributing to complex diseases. These include a computerized genealogy database covering the entire Icelandic population and going back as far as 1,100 years to the settlement of the country; genotypic and disease data from more than 100,000 volunteer participants in more than 50 different disease programs; one of the highest-throughput DNA analysis facilities in the world; and in-house developed statistical algorithms and associated computer programs for rapidly analyzing data from large numbers of individuals to identify genetic factors that correlate with specific diseases.

As of the end of 2003, we had identified fifteen genes involved in eleven common diseases and located genes involved in almost thirty common diseases. A disease gene is said to be located when we have discovered the approximate location in the human genome of a DNA sequence encoding a gene that seems to confer significantly increased risk of developing a particular disease. A gene is said to be identified when we have pinpointed the gene sequence accurately and found evidence of variations in the gene or a DNA sequence linked to this gene, which potentially influence the production of a protein that the gene encodes. The protein produced by transcription of the disease gene interacts with multiple other proteins, which form a so-called "pathway". The term "disease pathway" is used to describe the cascade of protein interactions that lead to development of the disease in the body. Our goal is to develop therapeutic drugs which can be administered orally, often referred to as small molecule drugs, which are capable of binding with molecules on the surface of human cells or of penetrating cells and binding with proteins, impacting the disease pathway to protect the patient against effects of the disease. In all of the diseases for which we have identified genes, we have identified "druggable targets", i.e., proteins for which medicinal chemists have shown that small molecule drugs can be made which either increase or decrease—as needed—the activity of the target protein. These drug targets are either products of the disease genes themselves or are located within the disease pathway.

We are applying our discovery of disease genes, disease pathways and drug targets to the development of drugs and diagnostics in many of the common complex diseases. Unlike the rare "Mendelian" diseases, often caused by a single variant of a single gene, the common complex diseases impact at least 1-2% of the population and show a complex inheritance pattern, which can only be identified by looking at large volumes of patient data and extended genealogies.

Along with our in-house programs in drug discovery and DNA-based diagnostic development, we have formed corporate alliances across our business. Our partners include Roche, Merck, IBM and Affymetrix.

In this report, references to we or us refer to deCODE genetics, Inc., our wholly owned subsidiary, Islensk erfðagreining ehf., and its wholly-owned subsidiaries, including Encode ehf., an Icelandic private limited company. After the closing of the acquisition of MediChem Life Sciences Inc. (MediChem) 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, including Emerald BioStructures. Dollar amounts are in thousands except share and per share amounts, unless otherwise noted.

deCODE was incorporated in Delaware in 1996. Our internet address is www.decode.com. We make available free of charge through our internet website our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with the Securities and Exchange Commission.

Gene Discovery

Our product development begins with gene discovery. Through our identification of the inherited components of common diseases, we are identifying novel markers for diagnostics and targets for drug development. A description of the scientific background to our work can be found below in the section captioned "Scientific Background." A description of our population approach to gene discovery can be found below in the section captioned "Population Approach and Resources." A brief description of some of our discovery programs and achievements follows here.

Cardiopulmonary Diseases. We are studying the genetic basis for a variety of common cardiovascular conditions, and have identified novel genes that we believe contribute to increased risk of developing stroke, myocardial infarction (heart attack), hypertension (high blood pressure), PAOD, and asthma. We have located genes in chronic obstructive pulmonary disease (COPD).

Metabolic and Other Diseases and Conditions. We have identified genes that we believe increase disease susceptibility in obesity, osteoarthritis, osteoporosis and non-insulin-dependent diabetes, and have located genes in familial combined hyperlipidemia and longevity. We are also studying nocturnal enuresis.

Autoimmune Diseases. We are currently studying the genetic basis of autoimmune diseases such as atopy, inflammatory bowel disease (Crohn's and ulcerative colitis), insulin-dependent diabetes, psoriasis, rheumatoid arthritis and ankylosing spondylitis. We have located genes in atopy, psoriasis and psoriatic arthritis, and rheumatoid arthritis.

Central Nervous System Diseases. We are studying the genetic basis for psychiatric and central nervous system diseases including Alzheimer's disease, anxiety, bipolar disease/depression, familial essential tremor, multiple sclerosis, Parkinson's disease, schizophrenia, autism, attention deficit and hyperactivity disorder, dyslexia, restless leg syndrome, and migraine. We have identified a strong link between schizophrenia and the Neuregulin 1 gene and confirmed this link in association studies in other populations. We have located genes in Alzheimer's disease, Parkinson's disease, anxiety disorder and depression, and familial essential tremor.

Eye Disease. We are studying the genetic basis of a range of eye diseases, including macular degeneration, glaucoma, cataracts, retinitis and myopia. We have located 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 the short arm of chromosome 2.

Cancer. We are conducting research on the genetic basis of many forms of cancer, including breast cancer, lung cancer, melanoma, renal cancer, colon cancer, testicular cancer, thyroid cancer, and prostate cancer. We have identified a gene linked to prostate cancer.

An Example of our Approach: Myocardial Infarction

Our work in myocardial infarction offers one concrete example of how our population genetics approach is pointing the way towards the development of new, more effective drugs targeting the root biological causes of disease. In this case deCODE discovered a disease gene and acquired a worldwide exclusive license for a drug which targets the disease pathway but was developed to treat a different disease. Based on the fact that this drug has already been tested in Phase I and Phase II clinical trials we will thus be able to bypass several stages of drug discovery and development and enter directly into Phase II clinical trials for myocardial infarction.

Cardiovascular diseases are the leading cause of death and disability in the developed world, with an increasing prevalence due to the aging of the population and increased incidence of obesity. Two of the most common cardiovascular diseases are myocardial infarction—or heart attacks—and stroke. More than 1 million deaths in the U.S. alone were caused by myocardial infarction and stroke in 2003. The process underlying myocardial infarction and stroke is generally attributed to atherosclerosis, which is literally a hardening of the interior of the arteries due to a buildup of different fatty substances on the arterial wall, often referred to as plaque.

The chronic inflammation of the arterial wall with corresponding buildup of plaque may constrict blood flow through the artery and sometimes lead to ruptures or erosion of the plaque. The rupture causes formation of blood clots that can break off and travel to another part of the body. If the blood clot blocks a blood vessel that feeds the heart, it causes myocardial infarction. If it blocks a blood vessel that feeds the brain, it causes a stroke. If blood supply to the arms or legs is reduced, it can lead to PAOD, which causes difficulty in walking and can eventually result in gangrene. Not only are these diseases mechanistically related, but we have shown by our genetic research that they also have common genetic factors. Our studies on the genetic basis of these cardiovascular diseases has however led to the identification of three different disease pathways and the discovery of different drug targets. As a result we now have a separate drug development program for each disease.

Our scientists established the link between myocardial infarction and a gene called ALOX5AP (encoding 5-lipoxygenase activating protein or FLAP) located on the long arm of chromosome 13, through the analysis of detailed measurements of DNA from volunteers in almost 300 extended Icelandic families, including over 700 individuals with myocardial infarction. The family relationships between the often distantly related patients were identified using our nationwide computerized genealogy database.

We initially confirmed the location of a disease gene by showing that patients with myocardial infarction were much more likely to share a particular segment of DNA on chromosome 13 than expected based on relatedness of the individuals. This result was derived from analysis of DNA genotypes or polymorphic segments of DNA selected across the entire human genome sequence. We initially measured over 1,100 such variants in the DNA from each individual.

Through more detailed analysis of the segment of DNA that we had identified, which contained more than 40 different genes, we showed that a particular set of variations in the sequence of the gene encoding FLAP conferred almost two times greater risk of myocardial infarction in Iceland and also almost two times greater risk of stroke. These variations consist of changes in four separate nucleotides, corresponding to a haplotype—i.e. a small segment of DNA inherited as a unit. The four single nucleotide polymorphisms (SNPs) are separately found within a sequence containing over 33,000 nucleotides spanning the first four exons—or coding segments—of the FLAP gene.

In an independent study of almost 1,500 British individuals, we have also shown that while the Icelandic haplotype does not show statistically significant association with myocardial infarction in the British cohort, another haplotype in the FLAP gene almost doubles the risk of myocardial infarction in those patients. The existence of different haplotypes of the disease gene is not unexpected. A common disease like myocardial infarction is likely to be associated with many different mutations or sequence

variations in the same disease pathway and the frequency of these variations may differ among populations. deCODE's population genetics approach is however designed to identify key disease pathways, which will impact patients of different origin in a similar manner. In the case of myocardial infarction the haplotypes found in Iceland and Britain impact the same disease gene and disease pathway and the two patient groups suffer from the same symptoms. The British data thus underscores the key role of the FLAP pathway in myocardial infarction, and we expect the therapeutic benefit of DG031 to be the same for patients irrespective of their nationality.

The FLAP protein is a key element in the pathway for production of leukotrienes. Leukotrienes are small lipids that act to cause inflammation, hence the leukotrienes are known as inflammatory mediators. Thus, our studies of the FLAP gene provide a genetic link between inflammation, heart disease and stroke. Our subsequent measurements of leukotrienes produced by the FLAP pathway in blood cells from Icelandic myocardial infarction patients showed a greater production of certain leukotrienes in patients who had had a heart attack than in otherwise healthy volunteers who had never had heart disease. Moreover the observed difference in release of leukotrienes was largely accounted for by carriers of the disease haplotype. This observation combined with knowledge about the FLAP pathway and atherosclerosis, suggests that the disease associated variants of the gene increase inflammation in the arterial walls.

The importance of the FLAP pathway is well established in asthma, and drugs inhibiting this pathway have been developed for treating asthma. The role of the pathway in the development of atherosclerosis has only recently received attention. Studies of tissue from deceased patients have shown that proteins in the FLAP pathway are more strongly expressed in inflamed tissue from corroded arteries, and these proteins are more likely to be found in cells which are known to be involved in atherosclerotic plaque formation.

Based on the combined evidence from our genetic and functional studies we concluded that the FLAP protein presented an extremely promising drug target for myocardial infarction. Our data indicates that a drug targeting the FLAP protein could provide significant therapeutic benefit to a large population of patients.

In November 2003 we acquired an exclusive worldwide license from Bayer to develop and commercialize DG031, a small molecule compound that inhibits the FLAP and decreases production of leukotrienes. DG031 has been shown in previous clinical work in asthma to be generally safe and well tolerated with no significant safety issues. We expect to initiate a Phase II clinical trial in Iceland to measure the effects of DG031 on key markers of inflammation in cardiovascular disease. The clinical trial will be based on deCODE's information-rich clinical trials design, in which the genetic information derived from our previous discovery work in cardiovascular disease will provide strong guidance in the selection of an optimal patient cohort and the markers to be measured in the trial.

deCODE's studies in stroke and PAOD, which are strongly related to myocardial infarction, have followed a similar pattern of discovery. In stroke we located and identified a different disease gene and drug target. Our drug target in PAOD, identified through the same genetic discovery method, is also distinct from the targets in stroke and myocardial infarction. In the case of PAOD our Chicago based pharmaceuticals group has developed a series of promising drug compounds that are proprietary to deCODE. We expect to file an investigational new drug (IND) application for a new compound in this program in 2004 or early 2005.

Drug Discovery and Development Pipeline

The principal goal of our gene discovery work and the main focus of our business strategy is to discover, develop and commercialize new drugs to treat common diseases. In all of the diseases for which we have identified genes, we have, based on investigation of the disease pathway, identified potential druggable targets, that is, targets against which medicinal chemists have proven that therapeutic molecules can be made. These drug targets are either products of the disease genes themselves or are located within the disease pathways we have identified through our functional analyses of these genes.

The following table sets forth the current status of our gene discovery and drug discovery and development programs.

<u>Disease Category</u>	<u>Disease</u>	<u>Analyzing DNA</u>	<u>Disease gene located</u>	<u>Disease gene identified</u>	<u>Drug discovery or development</u>
CARDIOPULMONARY	Asthma	X	X	X	X
	Chronic obstructive pulmonary disorder	X	X		
	Hypertension	X	X	X	X
	Myocardial infarction	X	X	X	X
	Obstructive sleep apnea	X			
	Peripheral arterial occlusive disease	X	X	X	X
METABOLIC/OTHER	Familial combined hyperlipidemia	X	X		
	Nocturnal enuresis	X			
	Non-insulin-dependent diabetes	X	X	X	X
	Obesity	X	X	X	X
	Osteoarthritis	X	X	X	
	Osteoporosis	X	X	X	
AUTOIMMUNE	Ankylosing spondylitis	X			
	Atopy/Allergy	X	X		
	Inflammatory bowel disease	X			
	Insulin-dependent diabetes	X			
	Psoriasis	X	X		
	Rheumatoid arthritis	X	X		
CENTRAL NERVOUS SYSTEM	Stroke	X	X	X	X
	Alzheimer's disease	X			
	Anxiety disorder	X	X		
	Attention deficit hyperactivity disorder	X			
	Autism	X			
	Bipolar disease/depression	X			
	Dyslexia	X			
	Familial essential tremor	X	X		
	Migraine	X	X		
	Multiple sclerosis	X	X		
	Narcolepsy	X	X		
	Parkinson's disease	X	X		
	Restless leg syndrome	X			
	Schizophrenia	X	X	X	X
	Cataracts	X			
	Glaucoma	X			
EYE	Macular degeneration	X	X		
	Myopia	X			
	Retinitis pigmentosa	X			
WOMEN'S HEALTH	Endometriosis	X			
	Pre-eclampsia	X	X		
CANCER	Benign prostatic hypertrophy	X	X		
	Breast cancer	X			
	Colon cancer	X			
	Lung cancer	X			
	Melanoma	X			
	Prostate cancer	X	X	X	
	Renal cancer	X			
	Testicular cancer	X			
	Thyroid cancer	X			
OTHER RESEARCH	Longevity	X	X		

Our most advanced drug discovery and development programs are in myocardial infarction and PAOD, which are both proprietary to deCODE. In each case we have identified key disease genes through our population genetics research, conducted extensive functional work on our findings and identified drug targets within the disease pathways.

In PAOD, our drug discovery group has developed new compounds that targets the disease pathway. We expect to file our first investigational new drug (IND) application for PAOD in 2004 or early 2005.

In myocardial infarction we in-licensed from Bayer a compound that had been developed and tested as a potential treatment for asthma. Bayer transferred ownership of its IND associated with this compound to us. As a result, we will be able to use the data which Bayer compiled and submitted in support of its IND in connection with our IND for clinical testing in the U.S. During the previous clinical testing of the compound, now named DG031, more than 1,000 people were dosed with the drug, without any significant safety or tolerability issues. We are preparing to begin a Phase II clinical trial in Iceland of this compound for the reduction of serum indicators of cardiovascular inflammation. This trial will test the effect of three different doses of the drug on a total of about 180 patients. The Phase II trial is designed to select the best doses of DG031 for use in a subsequent Phase III outcome trial. Together with the Bayer clinical trial data indicating that DG031 is likely to be well tolerated, we may have sufficient data to be able to proceed immediately to a Phase III trial. The Phase III outcome trial will assess if DG031 decreases the number of heart attacks or strokes for the group of patients taking the drug compared to patients not receiving the drug. The Phase III trial will be a larger international multi-center trial, in which multiple groups of patients at different sites receive the drug on a trial basis. As one or more of these groups will be based in the U.S., the Phase III trial will be subject to prior approval by the Food and Drug Administration. We may seek partners to share in the development cost and commercialization of DG031 before or after commencing a Phase III trial.

Diagnostics

DNA-based diagnostic tests represent a key element in the development of personalized medicine and a key additional avenue for creating value from our gene discoveries. Since pinpointing genetic variations linked to disease involves the identification of genetic markers of disease susceptibility, we can apply the same findings we employ in our drug discovery efforts to the development of diagnostics tests.

We believe that such tests will become an integral part of health care within the next ten years. In the clinic, physicians may be able to use these tests to diagnose disease susceptibility as early and as accurately as possible, making it possible to implement more timely and effective treatment. Moreover, by understanding which individuals are highly predisposed towards a certain disease, doctors may be able to assist patients in developing effective disease prevention strategies that can help them reduce the risk of developing the disease. For example, a DNA- based diagnostic test for stroke would enable individuals to find out if they are at a particularly high risk of developing a stroke. Those who were could work with their doctors to develop prevention strategies that could reduce the risk of the predisposition ever developing into disease. These strategies could include changes in diet and lifestyle, as well as the use of effective available treatments for leading risk factors such as high blood pressure and high cholesterol.

In 2001, we established a partnership with Roche Diagnostics to develop and market DNA-based diagnostics tests. One of our most advanced programs is in osteoporosis, where we have identified a small number of SNPs (genetic variations known as single nucleotide polymorphisms) within the BMP2 gene that can be used to identify individuals who are at a nearly threefold average increased risk of developing osteoporosis. We are also advancing in our programs in stroke, myocardial infarction, PAOD, non-insulin-dependent diabetes and other major diseases. We expect that our first DNA-based diagnostic product under this alliance, which will be for osteoporosis, will be offered in 2004.

Pharmacogenomics

We are developing and plan to market pharmacogenomic tests that can, by analyzing genetic markers (i.e. genotypes) or gene expression, identify individuals who are likely to respond well to specific drugs. We believe that such tests will become another important element in the realization of more personalized medicine and a standard part of the prescription process. The potential applications and benefits of this technology are many. It may lead to tailor-made treatments, maximizing efficacy and minimizing side effects. The use of pharmacogenomic tests may also lead to faster and more successful clinical trials, which may reduce the time and cost involved in developing new drugs. Similarly, such tests may enable pharmaceutical companies to explore the use of existing compounds that may have been abandoned as investigational drugs because they were only effective for a small subgroup of patients.

We have two capabilities for identifying the genetic basis of drug response. Through our wholly owned pharmacogenomics and clinical trials subsidiary Encode, we are working prospectively to identify responders and non-responders. In this process, known as *in vitro* expression profiling, we establish clinical drug response baselines by administering a drug of interest to patients in a small clinical trial. Specimens such as certain types of white blood cells are obtained and tested with and without the presence of a drug to detect the different expression pattern of genes in the samples. (For further description of the technology used to measure gene expression please refer to the section captioned "Scientific Background" below). We then apply proprietary statistical algorithms to select a panel of differentially expressed genes that most accurately predicts the clinical response to the drug under investigation. We are further able to examine these genes for genetic markers such as SNPs, which correlate with responsiveness to a given drug and which can thus be used to design a DNA-based predictive test.

We can complement this approach by using our population resources in the same way that we would in our gene studies, but using drug response, rather than disease, as the trait we wish to analyze. We utilize our genealogical database and proprietary bioinformatics tools to cluster drug responders and non-responders into extended families. Patients are genotyped to identify the linkage between genetic variations and drug response. These results can be combined with the results of *in vitro* profiling to contribute to the selection of the most informative gene expression patterns.

In our pharmacogenomics work, we have identified expression levels for a set of eight genes that can be used to predict responsiveness to leading classes of treatments for asthma with an accuracy of approximately 90%. We have also identified sets of genes that can predict with similar rates of accuracy individual responsiveness to leading classes of drugs used to treat hypertension. In both of these diseases we are working on the development of pharmacogenomics tests with Roche Diagnostics, where we are seeking to develop a method to measure expression of the genes identified by deCODE and turning the results of this work into a marketable test or testing procedure. In partnership with Affymetrix, we have also developed methods based on gene array technology, for identifying responders and non-responders to several popular brand-name drugs used in treating many common conditions.

Clinical Trial Services

Our subsidiary Encode provides services relating to pharmacogenomics and clinical trials. Encode provides three types of services: clinical trials on new and existing therapeutics for pharmaceutical companies, information-rich clinical trial studies for contract customers, and pharmacogenomics work and information-rich clinical trials for our proprietary programs. Information-rich clinical trials refers to a novel concept based on deCODE's expertise in human genetics studies and Encode's expertise in clinical trials and pharmacogenomics. In an information-rich clinical trial we utilize our extensive databases of genetic and clinical data to provide guidance in the selection of an optimal patient cohort and to select genetic markers and biomarkers to be measured in the trial.

We believe that one of Encode's most unique and valuable capabilities is that for conducting pharmacogenomic and biomarker analyses in parallel with clinical trials. The ability to understand which patients are best suited for a given drug will, in our view, provide several important potential benefits to our pharmaceutical and biotechnology customers. These include the ability to stratify and thus speed clinical trials, and to aid in capturing significant market share for new products entering competitive therapeutic areas.

In our pharmacogenomics and clinical trials alliances we negotiate both for the right to participate in potential sales of tests and, in some cases, drugs developed using our capabilities in this field.

A case in point is our most recent alliance with Merck, Inc. where deCODE and Encode will conduct information-rich clinical trials on a range of Merck's developmental compounds. Under the alliance deCODE will use its population genetics capabilities and expertise in pharmacogenomic analysis to enhance and complement Merck's on-going clinical development process. Based on the information-rich clinical trials concept, deCODE will use its population genetics resources to select optimal cohorts for clinical trials and choose which phenotypes or genetic markers are the best measures of patient responsiveness to the drugs being tested.

Informatics

We have developed statistical and data mining tools to generate, assemble and analyze our vast sets of genealogical, disease and genotypic information. We believe we have unique informatics tools for utilizing large datasets to identify correlations between genetic variation and disease, and we are now attempting to capture additional value from our investments in informatics by commercializing these tools for use by other research organizations, such as government and academic laboratories, and research consortia.

Our principal informatics products are the Clinical Genome Miner Discovery™ system and the Identity Protection System™, which we are marketing in alliance with IBM. CGM Discovery™ is a computer based application and which can be used for isolating and analyzing genes and gene variations associated with particular diseases. It includes the same interfaces and statistical analysis tools that we use in our gene discovery programs. The system enables users to input their own data on disease, genotypes and genealogy and to mine this data, in real time, for correlations. The Identity Protection System™ incorporates technology developed by deCODE and employed in Iceland under the auspices of the Icelandic Data Protection Authority to securely and automatically anonymize clinical and genetic data. In 2003 we adapted the CGM Discovery™ and the Identity Protection System™ to run on IBM operating systems, software and servers, and the products are now available to customers.

In January 2000, our wholly owned Icelandic subsidiary Islensk erfðagreining ehf., received from the Icelandic Ministry of Health a twelve-year license to create and operate an Icelandic Health Sector Database (IHD). The IHD was conceived to be a centralized database of personally non-identifiable and encrypted copies of health information from medical records in Iceland's national health system. Such a system would enable users to conduct statistical, population-based analyses of healthcare data and trends.

As of March 2004, a government-mandated review of the IHD's data encryption and protection protocols, which began in April 2000, had not been completed. When and if this review and issuance of related security certification is completed, we will evaluate whether and when, if at all, to proceed with the development of the IHD in light of our priorities and resources at that time. In light of our current business plans and priorities, we do not expect the IHD to be a material aspect of our business in the near future.

Drug Discovery and Development Services

Our drug discovery and development services business is built upon the demand by pharmaceutical and biotechnology companies and patient organizations for contract chemistry services. Recent advances in genomics have resulted in rapid growth in the number of novel biological targets that can be exploited for drug discovery. This has created a significant demand by pharmaceutical and biotechnology companies for the synthesis of small molecule drugs. Our pharmaceuticals group provides a full range of drug discovery technology and services using multiple integrated high-throughput technologies to streamline drug discovery and development. The group is focused on chemistry-based drug discovery and development ranging from early-stage lead discovery and optimization to the identification of viable synthetic routes required to manufacture clinical good manufacturing practices (cGMP) materials in quantities for pre-clinical and clinical studies. It provides us, our partners and our contract customers with substantial expertise in the field of drug discovery and development.

Genotyping

We are taking advantage of our assets and expertise to create an additional contract service business. 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. At our main research facility in Reykjavik, we have one of the highest-throughput genotyping laboratories in the world, capable of generating tens of millions of genotypes per month. We have developed high-density genetic maps that enable us to accurately locate thousands of genetic markers across the human genome. We also have in place efficient, automated systems for all stages of the genotyping process, from DNA isolation to plate preparation and the generation, storage and analysis of genotypic data.

Our customers for these services include pharmaceutical companies, research consortia and academic institutions. We believe that our speed, accuracy, quality assurance and competitive pricing has proven to be attractive given the high overhead costs involved in setting up a genotyping facility and the continued growth of applied genetics.

Scientific Background

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 is estimated to contain 30-40,000 protein encoding genes. Each cell uses or "expresses" only those 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.

DNA sequencing, i.e. the measurement of the sequence of nucleotides found in a part of an individual's DNA, is an expensive process and is infrequently used to measure variations in a large number of individuals. For the preliminary location and identification of genes and variations in these genes we rely on the measurement of genetic markers, which are either measurements of single nucleotides (SNPs), repeated sequences of nucleotides (microsatellites) or the deletion of a sequence of nucleotides (indels). The markers act as signposts in the human genome, and provide indirect information about variation in the sequence surrounding the marker. deCODE has developed extensive expertise and resources in this field and has developed one of the largest repositories of marker data. We operate the highest throughput DNA analysis (or genotyping) facility in the world. Our capacity is 30 million genotypes (that is measurements of individual markers) per month, and in 2003 the average output was about 10 million genotypes per month. This is over ten times larger than the output of each of the largest genotyping facilities in the US, at the Marshfield Center for Medical Genetics in Marshfield, Wisconsin and the Center for Inherited Disease Research (CIDR) in Baltimore, Maryland. This comparison is based on public data from the Marshfield center website (that reports approximately 7.5 million genotypes completed in 2003) and the CIDR website (that reports a capacity of 11 million genotypes in 2003).

Another common form of analysis is the measurement of gene expression. This term is usually used to refer to detection of the presence and amount of one or more gene products in a particular cell or tissue, such as certain types of white blood cells. These measurements can be made using gene array (a.k.a. or microarray) technology, where a specifically designed glass slide, microchip or other substrate covered with different nucleic acid probes is employed. The probes on the array are designed to link to the specific gene products being measured and this coupling of the sample with the probe can be detected by a microscope or other instrument. The output from the gene array analysis are measurements which indicate the expression of single genes or a contemporaneous expression of multiple genes in a particular configuration, often referred to as gene expression profiles.

Virtually the entire human genome sequence has now been discovered. 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 that 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 or "hypothesis" about which tissues or proteins or genes are important in the disease, it represents a systematic strategy for creating specific knowledge about disease. 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.

Population Approach and Resources

Population Genetics and Common Diseases

We believe that human population genetics offers a means of discovering powerful new methods for preventing and treating common diseases.

Most of the medical care that we have today has developed through a focus on the diagnosis of disease according to broadly accepted criteria of signs and symptoms, and the prescription of drugs that have been shown to alleviate the manifestations of disease once a patient has already become ill. The obvious shortcomings of this approach are due in large measure to the fact that relatively little has been known about the underlying biology of most of the common diseases. These conditions—such as stroke, heart attack, Alzheimer's disease, asthma, osteoarthritis, to name but a few—are common precisely because they are complex. These diseases arise from the confluence of various inherited and environmental factors which are present in large segments of most societies and which, taken independently, do not generally pose any particular risk to public health.

Genetics offers a means of unraveling this complexity and of gaining a foothold in the biology of disease. Once the key genes and mutations that underlie a predisposition to develop a given illness are identified, it is possible to identify the proteins they encode, the function of these proteins or gene products in the body, and their interaction with other proteins. In short, it is possible to tease out the biological mechanisms and pathways of disease. Using genetic markers and biological targets within these pathways, we believe it is possible to develop DNA-based diagnostics that can measure predisposition to disease and drugs that can disrupt the disease process.

We believe that deCODE's advantage in identifying genetic variations linked to disease arises from the complexity of the task. Unlike the rarer, "simple" genetic disorders, in which specific mutations lead directly to the development of disease, the complexity of the common diseases means that the correlation between any single genetic factor and the occurrence of the disease will be statistically significant but not direct.

The fundamental question for applying genetics to improve healthcare is: what genetic factors do people who have a given disease tend to share that people who do not develop the disease do not? Because the genome is in essence composed of serial bits of information, we have always approached this as an information challenge. In order to meet this challenge it is necessary to assemble large and detailed datasets on disease and genetic variation from as large a group as possible—ideally an entire population. It is also critical to have accurate and comprehensive genealogical records. Genealogy is the only means for systematically tracking the genetic components as they have been passed from one generation to the next across a population.

The Icelandic Advantage

We believe that the scarce resource in genetics is a population with all three sets of data—genealogical, genetic, and phenotypic (i.e. clinical data, measurements and observations). In Iceland, we have brought these resources together with advanced data mining tools to create what we believe is the world's leading gene-discovery organization for common complex diseases. The success of this organization can be comparatively measured by the number of disease genes located, genes that have been further identified and validated and number of patents and scientific publications based on these findings. We believe that no other human genetics group has been able to match this output since deCODE's inception.

Iceland offers several advantages for conducting population genetics research. These include:

Extensive Genealogies. There exist genealogical records for almost the entire population, stretching from the present day back to the settlement of the country in the ninth century. Genealogical

data can facilitate the identification of genes that cause a specific disease by enabling researchers to find families with a large number of distantly related patients, and compare the genes of family members with and without the disease.

Relative Homogeneity. We believe that in a small and historically isolated population such as Iceland's, the variety of genetic factors involved in any given disease is likely to be smaller than in larger and more diverse populations. Iceland also presents many instances of "founder" effects, in which the principal inherited factors in a disease affecting many present day patients can be traced back to a single individual or "founder" ancestor. These factors reduce the amount of variation in the genetic factors involved and thus simplify the task of finding and subsequently understanding the disease genes and mutations causing common diseases. 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 will enhance the identification of drug targets for any population. In addition, the incidence of the common complex diseases in Iceland is virtually identical to the incidence in Western Europe and in the Caucasian population in the US.

Sufficient but Manageable Size. The Icelandic population, which numbers approximately 290,000, is small enough to make feasible population-wide studies of the genetics of common diseases with a minimum of sampling bias. At the same time, it is large enough to deliver meaningful results without an increased incidence of recessive genetic conditions that can arise as a result of intermarriage. The prevalence of the common diseases in Iceland is very similar to that seen elsewhere in the industrialized world, and the genes we have identified in Iceland have been shown to be key genes in the same conditions in larger and more diverse populations.

Centralized Healthcare System. Iceland has had a universal, single-payer national healthcare system since 1915. It presently consists of a base of 55 primary care centers; a large teaching and research hospital in Reykjavik formed through the merger of the country's two largest hospitals; one central hospital in the country's second-largest city, Akureyri; and several smaller regional hospitals. 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 system makes both patient care and medical data universal, standardized and easily accessible for scientific research.

High Participation Rate in Medical Research. The level of public education is high in Iceland. Historically, the Icelandic population has been willing to participate in biomedical research in the Icelandic community. Approximately 95% of all those who are asked to take part in our genetic studies agree to do so, as do over 99% of those asked to participate in a second study.

Our Population Resources

deCODE has utilized these advantages to develop its gene discovery engine. Our key resources include a computerized genealogy database that can in real time draw the familial connections of any group of present-day Icelanders; genotypic and detailed medical data from more than 100,000 volunteers in our research in approximately 50 common diseases; one of the world's highest-throughput genotyping facilities; and statistical algorithms and software systems we have developed for storing this data and mining it for correlations between genetic variation and disease.

The success of our gene research is due in large part to the participation of tens of thousands of Icelanders in our research programs. We believe that participation is encouraged by the fact that we have one of the most advanced privacy and data protection systems anywhere in the world. All data on

individuals used in our research is made personally non-identifiable and held under encrypted identifiers generated by the Icelandic government's Data Protection Authority. All genetic and medical data being used in the company's gene research has been obtained under the strictest standards of informed consent.

Our Gene Discovery Process

Using our population approach, we can efficiently conduct genome-and population-wide scans to identify the key genetic factors involved in virtually any common disease. In the study of any particular disease, we first define the disease classification broadly but rigorously. For example, in our research on stroke we first defined patients using the broad classification of the disease, including the principal subtypes, hemorrhagic and ischemic stroke, as well as less serious "mini-strokes" known as transitory ischemic events. In every disease we work with a group of general practitioners and specialist physicians who see patients with a given disease or group of diseases. Once the National Bioethics Committee has approved a research protocol for a given disease project, our clinical collaborators compile a list of all patients in Iceland who have been diagnosed with the disease. This list is encrypted by the Data Protection Authority, which also encrypts our genealogy database using the same key. We then run the list of patients through the genealogy database, yielding very large extended families of patients, frequently encompassing hundreds of individuals.

The genealogy links together both closely and distantly related patients; by definition, these families will tend to share inherited risk factors for the disease. Our statisticians examine these large pedigrees and determine which patients would provide the maximum statistical power for genotypic analysis. We then send the encrypted IDs for this group of patients back through the Data Protection Authority, which decrypts the list and sends the names of the patients on to the collaborating physicians. The physicians then contact the patients, explain the nature of the gene discovery project and ask patients if they have close relatives who do not have the disease who might also be willing to participate. All those who wish to participate must sign an informed consent form, and are then asked to go to a special center located in Reykjavik where they can give blood from which DNA will be isolated. All blood samples are likewise labeled with encrypted IDs by the Data Protection Authority before being sent to deCODE. Those who give blood are also usually asked to meet with their doctor for a clinical examination to provide detailed information on health factors relevant to the disease or group of diseases under study. This information is likewise made personally non-identifiable by the Data Protection Authority before being sent to deCODE.

We genotype all DNA samples with a framework set of approximately 1,100 microsatellite markers spread across the entire genome. Using the genealogies and our datamining algorithms we can then determine which small segments of the genome related patients share to a statistically much higher degree than one would expect given their relatedness. We are thus able to "map" to small segments of particular chromosomes the genetic factors that correlate with the disease. Through detailed analysis of these regions using denser sets of microsatellite and SNP markers, we are able to efficiently identify the key disease genes and disease-linked haplotypes and mutations.

We validate our findings by conducting association studies in other, more heterogeneous populations. For example in our study on schizophrenia, where we have identified the Neuregulin-1 gene which doubles the risk of developing schizophrenia in Iceland, we have published a study on samples from a Scottish population in which the association to the disease haplotype matches the association in Iceland quite closely. As described above, in myocardial infarction we have matched our results in the Icelandic population by confirming association to a different haplotype in the same gene in a British population. In other studies we have also found that the genes we have identified in Iceland also play a critical role in the same diseases in other populations, although the variety of mutations or haplotypes we find outside of Iceland is frequently greater. Understanding the range of

mutations or haplotypes contributing to disease is particularly vital for the development of DNA-based diagnostic tests suitable for use around the world.

From Gene to Targets

Our approach thus allows for a virtually hypothesis-free discovery process that homes in directly on the inherited components of human disease. This provides us with population-validated drug targets and diagnostic markers that are directly involved in the disease process.

In a majority of cases where we have isolated disease genes, the products of the genes themselves have provided “druggable” targets—that is, classes of proteins against which chemists have previously been successful in designing compounds. However, once we have succeeded in identifying a disease gene, we also 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 drug targets that interact with the disease genes.

We have established complementary systems to isolate specific drug targets from pathways that may be involved in the disease process. These approaches can expand the number of potential drug targets that can be used to identify compounds for disrupting the disease process.

Our pathway 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 that involve increasing stringency in order to eliminate false positive protein-protein interactions. We are also able to cross match the genes identified as partners of the first disease gene with additional population genomics data, as these genes may also be mutated in the same disease.

Potential drug targets upstream in the disease 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 can link the sequence that governs expression of the newly identified disease genes to specific binding proteins that are responsible for turning the disease gene “on.” Finally, we perform gene arrays to validate our conclusions and to identify other genes that are regulated in tandem with the disease gene.

Our analysis of genes in the downstream pathway 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 genes “on” or “off” in cells, as well as to express mutated versions revealed in the course of gene discovery. We employ gene array technology in our efforts to find expression patterns of genes that are altered by the differential expression of the disease gene under study. Some of these genes may interact with the disease gene product in disrupting normal biology and leading to disease.

Comparison to Other Approaches

Our approach has been designed to minimize 'hypothesis bias', i.e. we approach the search for disease genes without a preconceived notion about the identity or features of those genes. We believe that this approach provides us with targets of a uniquely high quality for drug and diagnostic development.

Some other companies are using an approach to locate disease genes that relies on associating specific, predetermined variations in DNA, whether scattered throughout the genome or in particular genes, with a propensity to develop a disease. We believe that this is an effective means of validating discoveries, but that as the basis for a discovery process it 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 genetic markers to isolate genes and haplotypes.

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.

Collaborations

F. Hoffmann-La Roche (Roche)

Therapeutics. In 1998 we entered into a research collaboration and cross-license agreement with Roche, which terminated in 2002, under which we identified key genetic factors involved in ten common diseases: osteoarthritis, Alzheimer's disease, schizophrenia, PAOD, stroke, osteoporosis, obesity, anxiety, non-insulin-dependent diabetes and rheumatoid arthritis. In January 2002, we entered into a new three-year agreement with Roche focused on turning the achievements of our 1998 gene discovery collaboration into novel therapeutics. The 2002 agreement provided that we would collaborate with respect to four diseases that had been the subject of the 1998 agreement. We are currently collaborating on two of those diseases. Under the 2002 agreement we have received \$16,000,000 in research funding and may receive an additional \$4,000,000 in research funding during the remainder of the term of the agreement. The agreement provides that upon the development of specified compounds during the term of the agreement and for a specified period thereafter we may receive milestone payments, the amount of which will depend on the type of compound developed. In addition, we will be entitled to receive royalties on the sales of drugs that are developed. Proprietary rights to discoveries relating to the other diseases that we worked on with Roche under the 1998 agreement have reverted back to us subject to limited rights retained by Roche with respect to certain compounds that we may develop for treatment of these diseases. We expect that we will not receive research funding under the 2002 agreement after February 1, 2005, when the research term ends, unless Roche and we decide to extend the collaboration beyond that time.

Diagnostics. In June 2001, we signed a five-year alliance with Roche's diagnostics division to develop and market DNA-based diagnostics for major diseases. More recently we have added research programs aimed at developing diagnostics to predict drug response for major therapeutics used to treat

those diseases, in order to help select the most effective treatment of those available. The alliance represents an important element in our strategy of turning our research achievements into products for the market. The alliance brings 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. Under the agreement we have received \$28,625,000 in research funding, up-front fees and milestone payments. We may receive \$15,625,000 in additional research funding over the remainder of the term of the agreement as well as milestone payments upon the achievement of research and development milestones and royalties on the sales of diagnostic products developed.

Merck & Co, Inc. (Merck)

Obesity. In September 2002, we entered into an alliance with Merck aimed at developing new treatments for obesity. Under the alliance, we are combining our research efforts in the genetics of obesity to identify, validate and prioritize a series of drug targets to take into development. The goal of the alliance is to accelerate the discovery of new drugs to fight obesity, a condition that now represents one of the fastest-growing public health challenges in the industrialized world. Under the terms of the three-year agreement, which can be extended on a year-to-year basis upon the consent of the parties, we have received research funding, technology access fees and milestone payments in the aggregate amount of \$13,750,000 and may receive research funding and technology access in the future of \$10,750,000. In addition, we may receive further research milestone payments and we may receive milestone payments as compounds developed under the alliance advance in the development process and royalties on successfully marketed drugs. Merck may terminate the agreement at any time upon 90 days' notice or after September 26, 2004 upon 30 days' notice in the event that the research program fails to achieve certain specified goals.

Information Rich Clinical Trials. In February 2004, we entered into an agreement with Merck under which we will conduct information-rich clinical trials on a range of Merck's developmental compounds. The term of the alliance is seven years, subject to termination by Merck after five years. We will at any given point over the course of the alliance be conducting concurrent trials on as many as five Merck compounds. The alliance will employ our population genetics capabilities and expertise in pharmacogenomic analysis to enhance and complement Merck's on-going clinical development process. Under the terms of the agreement, we will receive royalties on sales of drugs and diagnostics developed as part of the alliance. We will receive a one-time technology access fee, will share research funding for the clinical development of compounds and pharmacogenomic analysis, and will receive milestone payments as compounds or pharmacogenomic tests reach the market. In addition, Merck has purchased 689,703 shares of our common stock at a price of \$14.50 per share, and has received a warrant to purchase up to 1,724,257 of additional shares of our common stock at \$29.00 per share over the next five years.

Bayer HealthCare AG (Bayer)

In 2003 we received from Bayer an exclusive worldwide license to develop, make and sell a compound that had been developed and tested against a drug target that we had discovered might play a role in myocardial infarction. The compound had been developed as a potential treatment for asthma and subjected to substantial clinical development work on behalf of Bayer. During the previous clinical testing of the compound, now named DG031, more than 1,000 people were dosed with the drug, without any significant safety or tolerability issues. In connection with the license, Bayer transferred ownership of its IND associated with this compound to us. As a result, we will be able to use the data which Bayer compiled and submitted in support of its IND in connection with the IND we will be required to file in the U.S. before we can conduct clinical trials there. Under the agreement, we have paid Bayer a license fee and will pay milestone payments upon the achievement of specified

developmental milestones and royalties on sales of the drug. The agreement gives Bayer the right of first negotiation to be our manufacturer of the compound.

Patents and Proprietary Rights

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 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, we actively 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. These include, among other things, genes we discover; mutations of genes and related processes and inventions; technologies which may be used to discover and characterize genes; therapeutic or diagnostic processes and other inventions based on these genes as well as methods developed in our biostructures and pharmaceutical groups for the discovery and development of drugs. As of year-end 2003, we had 24 issued U.S. patents and eight issued patents in non-US jurisdictions. We also had 65 pending patent applications in the US and 81 pending patent applications in non-US jurisdictions. We claim priority under the Patent Cooperation Treaty for 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 licensed from Bayer a composition of matter patent and a manufacturing process patent for DG031. The acquired patents expire in 2009 and 2012 respectively.

We have also applied for additional patents on our own, claiming specific uses of DG031 and for other compounds with similar mode of action for those patients most likely to benefit from administration of those compounds, due to their specific genetic makeup. However, it is not certain that we will ultimately be issued such use patents, and even if issued, that they will be enforceable in infringement proceedings before the courts.

The United States Drug Price Competition and Patent Term Restoration Act of 1984, known as the Hatch-Waxman Act, provides for the return of up to 5 years of patent term for a patent that covers a new product or its use, to compensate for time lost during the regulatory review process. An application for patent term extension is subject to approval by the U.S. Patent and Trademark Office in conjunction with the FDA. If our clinical trials of DG031 are successful and we ultimately receive the FDA's approval to market the drug, we expect to seek to extend the term of one of the patents we licensed from Bayer. However, there can be no assurance that we will receive a patent term extension.

The Hatch-Waxman Act also establishes a five-year period of marketing exclusivity from the date of NDA approval for new chemical entities approved after September 24, 1984. We believe that DG031 is a new chemical entity and expect to seek such market exclusivity if we receive NDA approval for the drug. During this Hatch-Waxman marketing exclusivity period, no third-party may submit an "abbreviated NDA" or "paper NDA" to the FDA. Finally, any abbreviated or paper NDA applicant will be subject to the notification provisions of the Hatch-Waxman Act, which should facilitate our notification about potential infringement of our patent rights. The abbreviated or paper NDA applicant must notify the NDA holder and the owner of any patent applicable to the abbreviated or paper NDA product, of the application and intent to market the drug that is the subject of the NDA.

Competition

We face, and will continue to face, intense competition in our gene discovery programs from organizations such as major pharmaceutical companies, specialized biotechnology companies, 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 operations 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. In addition, the development, production and marketing of any pharmaceutical and diagnostic products which we or a partner may develop is subject to regulation by governmental authorities. Strict regulatory controls on the clinical testing, manufacture, labeling, supply and marketing of the products will influence our and our partners' ability to successfully manufacture and market therapeutic or diagnostic 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 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.

In the United States we and our products are subject to comprehensive regulation by the United States Food and Drug Administration (FDA). The process required by the FDA before our products may be approved for marketing in the United States generally involves (i) pre-clinical new drug

laboratory and animal tests, (ii) submission to the FDA of an investigational new drug (IND) application, which must become effective before clinical trials may begin, (iii) adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug for its intended indication, (iv) submission to the FDA of a new drug application (NDA) and (v) FDA review of the NDA in order to determine, among other things, whether the drug is safe and effective for its intended uses. There is no assurance that the FDA review process will result in product approval on a timely basis, if at all.

Pre-clinical tests include laboratory evaluation of product chemistry and formulation, as well as animal studies to assess the potential safety and efficacy of the product. Certain pre-clinical tests are subject to FDA regulations regarding current Good Laboratory Practices. The results of the pre-clinical tests are submitted to the FDA as part of an IND and are reviewed by the FDA prior to the commencement of clinical trials or during the conduct of the clinical trials, as appropriate.

Clinical trials are conducted under protocols that detail such matters as the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND. Further, each protocol must be reviewed and approved by an institutional review board.

Clinical trials are typically conducted in three sequential phases, which may overlap. During Phase I, when the drug is initially given to human subjects, the product is tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. Phase II involves studies in a limited patient population to (i) evaluate preliminarily the efficacy of the product for specific targeted indications, (ii) determine dosage tolerance and optimal dosage and (iii) identify possible adverse effects and safety risks. Phase III trials are undertaken in order to further evaluate clinical efficacy and to further test for safety within an expanded patient population. The FDA may suspend clinical trials at any point in this process if it concludes that clinical subjects are being exposed to an unacceptable health risk.

We will need FDA approval of our products, including a review of the manufacturing processes and facilities used to produce such products before such products may be marketed in the United States. The process of obtaining approvals from the FDA can be costly, time-consuming and subject to unanticipated delays. There can be no assurance that the FDA will grant approvals of our proposed products, processes or facilities on a timely basis, if at all. Any delay or failure to obtain such approvals would have a material adverse effect on our business, financial condition and results of operations. Moreover, even if regulatory approval is granted, such approval may include significant limitations on indicated uses for which a product could be marketed.

Among the conditions for NDA approval is the requirement that the prospective manufacturer's operating procedures conform to cGMP requirements, which must be followed at all times. In complying with those requirements, manufacturers (including a drug sponsor's third-party contract manufacturers) must continue to expend time, money and effort in the area of production and quality control to ensure compliance. Domestic manufacturing establishments are subject to periodic inspections by the FDA in order to assess, among other things, cGMP compliance. To supply a product for use in the United States, foreign manufacturing establishments also must comply with cGMP and are subject to periodic inspection by the FDA or by regulatory authorities in certain of such countries under reciprocal agreements with the FDA.

Both before and after approval is obtained, a product, its manufacturer and the holder of the NDA for the product are subject to comprehensive regulatory oversight. Violations of regulatory requirements at any stage, including the pre-clinical and clinical testing process, the approval process, or thereafter (including after approval) may result in various adverse consequences, including the FDA's delay in approving or refusal to approve a product, withdrawal of an approved product from the market and/or the imposition of criminal penalties against the manufacturer and/or NDA holder. In addition, later discovery of previously unknown problems may result in restrictions on such product,

manufacturer or NDA holder, including withdrawal of the product from the market. Also, new government requirements may be established that could delay or prevent regulatory approval of our products under development.

The FDA has implemented accelerated approval procedures for certain pharmaceutical agents that treat serious or life-threatening diseases and conditions, especially where no satisfactory alternative therapy exists. We cannot predict the ultimate impact, however, of the FDA's accelerated approval of procedures on the timing or likelihood of approval of any of our potential products or those of any competitor. In addition, the approval of a product under the accelerated approval procedures may be subject to various conditions, including the requirement to verify clinical benefit in post-marketing studies, and the authority on the part of the FDA to withdraw approval under streamlined procedures if such studies do not verify clinical benefit.

Most European countries have similarly high standards of technical appraisal and consequently, in most cases, a lengthy approval process for pharmaceutical products.

The regulatory approval processes can take many years and require the expenditure of substantial resources. Data obtained from pre-clinical and clinical 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 primary 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 in relation to environmental control facilities for the remainder of this fiscal year or any succeeding fiscal year.

The activities of our pharmaceuticals group 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 our pharmaceuticals group'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, 2003, deCODE and all of its subsidiaries employed 414 full-time staff. Of the total number at the end of 2003, approximately 109 were employed in the US, and 305 in Iceland. More than 90 held PhD or M.D. degrees and approximately 250 held college degrees. 338 employees were engaged in, or directly supported, research and development activities, of which 267 worked within the laboratory facilities and 71 held positions associated with the development and support of informatics. 38 employees were engaged in various professional support functions such as Finance, Business Development, Legal, Communications, Human Resources and Clinical Collaborations, and some 36 were employed in administrative support, facilities management, cleaning and security. In addition, we utilized part-time employees and outside contractors and consultants as needed and plan to continue to do so.

Certain Financial Information

Research and Development Expenses

Our research and development expenses were \$63.5 million, \$89.6 million and \$71.0 million in the years ended December 31, 2003, 2002 and 2001, respectively. Of these research and development expense amounts, we estimate that approximately \$44 million, \$48 million and \$30 million were spent with respect to customer-sponsored research and development activities for 2003, 2002 and 2001, respectively. We do not generally track fully burdened research and development expenses by project. These estimates of expenses incurred relating to customer-sponsored research and development activities are approximated based upon full-time equivalent efforts (FTEs) together with those research and development expense that are kept by project. These estimates are not necessarily fully burdened costs of revenue for the respective years in accordance with generally accepted accounting principles.

Geographic Information

Long-lived assets located in the United States and Iceland were \$32,553,000 and \$69,861,000, respectively as December 31, 2003 and \$36,089,000 and \$75,182,000, respectively, at December 31, 2002.

Revenues attributed to the United States and to Iceland were \$13,744,000 and \$33,067,000, respectively, for 2003 and \$14,485,000 and \$26,580,000, respectively, for 2002 and were all attributed to Iceland in 2001.

Significant Customers

Historically, a substantial portion of deCODE's revenue has been derived from contracts with a limited number of significant customers. deCODE's largest customer, Roche, accounted for approximately 43% of the company's consolidated revenue in 2003 and 41% of consolidated revenue in 2002. Merck accounted for approximately 19% of the company's consolidated revenue in 2003 and 4% of consolidated revenue in 2002. Revenues under the joint development and commercialization agreement with ABG, which was terminated in the fourth quarter of 2002, accounted for 15% of consolidated revenue in the year ended December 31, 2002. The loss of any significant customer may significantly lower deCODE's revenues and affect deCODE's progression to profitability.

RISK FACTORS, FORWARD-LOOKING STATEMENTS, AND CAUTIONARY FACTORS THAT MAY AFFECT FUTURE RESULTS

This annual report on Form 10-K 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. We cannot assure our investors that our expectations and assumptions will prove to have been correct. We undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of future events, new information or otherwise. 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. Dollar amounts are in thousands, except share and per share amounts unless otherwise noted.

Risks Related to Our Business

We may not successfully develop or derive revenues from any products or services.

We use our 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 we have identified some genes that we believe are likely to cause certain diseases, we may not be correct and may not be successful in identifying any other similar genes. Many experts believe that some of the diseases we are targeting are caused by both genetic and environmental factors. Even if we identify specific genes that are partly responsible for causing diseases, any gene-based therapeutic or diagnostic products may not detect, prevent, treat 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 therapeutic or diagnostic products.

Any pharmaceutical or diagnostic products that we or our collaborators are able to develop will fail to produce revenues unless we:

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

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

Our informatics products may not meet the needs of potential customers. We have generated little revenues from sales or licenses of informatics products. We cannot assure you that we can successfully develop or commercialize, or that there will be a market for, our informatics products.

If we continue to incur operating losses longer than anticipated, or in amounts greater than anticipated, we may be unable to continue our operations.

We incurred a net loss of \$35.1 million for the year ended December 31, 2003, and had an accumulated deficit of \$330.2 million at December 31, 2003. We have never generated a profit and we have not generated revenues except for payments received in connection with our research and development collaborations with Roche, Merck and other collaborations, and from contract services and interest income. Our research and development expenditures and general and administrative costs

have exceeded our revenue to date, and we expect to spend significant additional amounts to fund research and development in order to enhance our core technologies and undertake product development (including drug development and related clinical trials) and to prepare our informatics products. We do not expect to receive royalties or other revenues from commercial sales of products developed using our technology in the near term. It may be several years before product revenues materialize, if they do at all. As a result, we expect to incur net losses for several years. If the time required to generate product revenues and achieve profitability is longer than we currently anticipate or the level of losses is greater than we currently anticipate, we may not be able to continue our operations.

If our assumption about the role of genes in disease is wrong, we may not be able to develop useful products.

The products we hope 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, we know of no therapeutic products based on disease-gene discoveries. If our assumption about the role of genes in the disease process is wrong, our gene discovery programs may not result in products, the genetic data included in our database and informatics products may not be useful to our customers and those products may lose any competitive advantage.

Clinical trials required for our product candidates are expensive and time-consuming, and their outcome is uncertain.

Before obtaining regulatory approvals for the commercial sale of any of our products under development, we must demonstrate through pre-clinical studies and clinical trials that the product is safe and effective for use in each target indication. Pre-clinical testing and clinical development are long, expensive and uncertain processes. It may take several years to complete testing for a product and failure can occur at any stage of testing. The length of time necessary to complete clinical trials varies significantly and may be difficult to predict. Factors that can cause delay or termination of our clinical trials include:

- slower than expected patient enrollment due to the nature of the protocol, the proximity of patients to clinical sites, the eligibility criteria for the study, competition with clinical trials for other drug candidates or other factors;
- lower than expected retention rates of patients in a clinical trial;
- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials;
- delays in approvals from a study site's review board;
- longer treatment time required to demonstrate effectiveness or determine the appropriate product dose; and
- lack of sufficient supplies of the product candidate; (vii) adverse medical events or side effects in treated patients; (viii) lack of effectiveness of the product candidate being tested and (ix) regulatory changes.

Even if we obtain positive results from pre-clinical or clinical trials for a particular product, we may not achieve the same success in future trials of that product. In addition, some or all of the clinical trials we undertake may not demonstrate sufficient safety and efficacy to obtain the requisite regulatory approvals, which could prevent the creation of marketable products. Our product development costs will increase if we have delays in testing or approvals, if we need to perform more or larger clinical

trials than planned or if our trials are not successful. Delays in our clinical trials may harm our financial results and the commercial prospects for our products.

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

Historically, a substantial portion of our revenue has been derived from contracts with a limited number of significant customers. Our largest customer, Roche, accounted for approximately 43% of our consolidated revenue in 2003 and 41% of consolidated revenue in 2002. Revenue under our alliance with Merck accounted for approximately 19% of consolidated revenue in 2003 and 4% of consolidated revenue in 2002. Revenues under the joint development and commercialization agreement with ABG, which was terminated in the fourth quarter of 2002, accounted for 15% of consolidated revenue in the year ended December 31, 2002. The loss of any significant customer may significantly lower our revenues and affect our progression to profitability.

If we are not able to obtain sufficient additional funding to meet our capital requirements, we may be forced to reduce or terminate our research programs and product development.

We have spent substantial amounts of cash to fund our research and development activities and expect to continue to spend substantial amounts for these activities over the next several years. We expect to use cash to collect, generate and analyze genotypic and disease data from volunteers in our disease-gene research programs; to conduct drug discovery and development activities; to continue to develop database and healthcare informatics products; and to continue other research and development activities. Many factors will influence our future capital needs, including:

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

We intend to rely on Roche, Merck and other existing and future collaborators for significant funding of our research efforts. In addition, we may seek additional funding through public or private equity offerings and debt financings. We may not be able to obtain additional financing when we need it or the financing may not be on terms favorable to us or our stockholders. Stockholders' ownership will be diluted if we raise additional capital by issuing equity securities.

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

The Icelandic parliament has enacted legislation authorizing the Minister of Finance to provide an Icelandic government guarantee of a convertible bond offering of up to \$200 million by deCODE for the purpose of financing new activities of deCODE in the area of drug development. To become effective, this legislation must be approved by the European Free Trade Association Surveillance Authority, or ESA for compatibility with the state aid stipulations of the agreement on the European Economic Area, to which Iceland is a signatory. The measure is still under review by ESA, which announced on July 16, 2003 that it would conduct a formal investigation procedure with regard to the proposed state guarantee. We cannot be certain that ESA will approve the legislation, that the Icelandic government will make use of the authorization and offer the guarantee to us for any or all of the permitted amount, that such offer to us by the Icelandic Government, if effectuated, will be on

terms acceptable to us, or that even with such an authorization we will be able to find a market for such an offering of convertible bonds.

If we cannot successfully develop a marketing and sales force or maintain suitable arrangements with third parties to market and sell our products, our ability to deliver products may be impaired.

We currently have no experience in marketing or selling pharmaceutical products. In order to achieve commercial success for any approved product, we must either develop a marketing and sales force, which will require substantial additional funds and personnel, or, where appropriate or permissible, enter into arrangements with third parties to market and sell our products. We might not be successful in developing marketing and sales capabilities. Further, we may not be able to enter into marketing and sales agreements with others on acceptable terms, and any such arrangements, if entered into, may be terminated. If we develop our own marketing and sales capability, it will compete with other companies that currently have experienced, well funded and larger marketing and sales operations. To the extent that we enter into co-promotion or other sales and marketing arrangements with other companies, revenues will depend on the efforts of others, which may not be successful.

If we cannot successfully form and maintain suitable arrangements with third parties for the manufacturing of the products we may develop, our ability to develop or deliver products may be impaired.

We have no experience in manufacturing products for commercial purposes and do not have manufacturing facilities. We must either develop such facilities, which will require substantial additional funds, or rely on contract manufacturers for the production of products for development and commercial purposes. The manufacture of our products for clinical trials and commercial purposes is subject to cGMP regulations promulgated by the FDA. In the event that we are unable to develop satisfactory manufacturing facilities or obtain or retain third-party manufacturing for our products, we will not be able to commercialize such products as planned. We may not be able to enter into agreements for the manufacture of future products with manufacturers whose facilities and procedures comply with cGMP and other regulatory requirements. Our current dependence upon others for the manufacture of our products may adversely affect our profit margin, if any, on the sale of future products and our ability to develop and deliver such products on a timely and competitive basis.

Our reliance on the Icelandic population may limit the applicability of our 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 European populations. However, the populations of other nations may be genetically predisposed to certain diseases because of mutations not present in the Icelandic population. As a result, we and our partners may be unable to develop diagnostic and therapeutic products that are effective on all or a portion of people with such diseases. Any difference between the Icelandic population and other populations may have an effect on the usefulness of the Clinical Genome Miner in studying populations outside of Iceland. For our business to succeed, we must be able to apply discoveries that we make on the basis of the Icelandic population to other markets.

If we fail to protect confidential data adequately, we could incur a liability or lose the Icelandic Health Sector Database license.

Under laws and regulations in force in Iceland, including applicable European laws, directives and regulations, all information on individuals that is used in our population research is anonymized under the protocols and supervision of the Data Protection Authority of Iceland. If any of this data held or generated by us were to become personally identifiable, we would risk losing public support for participation in its research, and could be liable to legal action. 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 our customers and reputation and the loss of the goodwill and participation of the Icelandic population, including healthcare professionals. These eventualities could materially adversely affect our work in Iceland.

The same general privacy and data protection laws and regulations as well as specific laws and regulations apply to our license to build and operate the Icelandic Health Sector Database, or IHD. Were any data sent to or contained in the IHD to become personally identifiable, we would incur the same risks above and potentially lose our database license.

Some parts of our product development services create a risk of liability from clinical trial participants and the parties with whom we contract.

Through our wholly-owned subsidiary Encode ehf., we contract with drug companies to perform a wide range of services to assist them in bringing new drugs to market. Our 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,

- we do not perform our 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 we contract;
- our laboratories inaccurately report or fail to report lab results; or
- our informatics products violate rights of third parties,

then, we could be held liable for these eventualities by the drug companies with whom we contract or by study participants. We maintain insurance to cover ordinary risks, but such insurance may be inadequate and it would not cover the risk of a customer deciding not to do business with us as a result of poor performance.

Use of therapeutic or diagnostic products developed as a result of our programs may result in product liability claims for which we have inadequate insurance.

Our discovery or research programs or the use of our database or informatics products may bring product liability claims against us. We currently do not carry liability insurance to cover such claims. We are not certain that we or our collaborators will be able to obtain such insurance or, if obtained, that sufficient coverage can be acquired at a reasonable cost. If we cannot protect against potential liability claims, we or our collaborators may find it difficult or impossible to commercialize products.

We may be unable to hire and retain the key personnel upon whom our success depends.

We depend on the principal members of our management and scientific staff, including Dr. Kari Stefansson, Chairman, President and Chief Executive Officer and Hannes Smarason, Executive Vice President and Senior Business Officer. We have not entered into agreements with any of these people that bind them to a specific period of employment. If any of these people leaves, our ability to conduct our operations may be negatively affected. Our future success also will depend in part on our ability to

attract, hire and retain additional personnel. There is intense competition for such qualified personnel and we cannot be certain that we 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 us.

Currency fluctuations may negatively affect our financial condition.

We publish our consolidated financial statements in U.S. dollars. Currency fluctuations can affect our financial results because a portion of our cash reserves and our 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 our cash reserves and revenues. Most of our long-term liabilities are U.S. dollar denominated. However, we may enter into hedging transactions if we have substantial foreign currency exposure in the future. We may have increased exposure as a result of investments or payments from collaborative partners.

Our contracts may terminate upon short notice.

Many of our contracts for research services are terminable on short notice. This means that our contracts could be terminated for numerous reasons, any of which may be beyond our 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 our profitability and require us to reallocate under-utilized physical and professional resources.

Risks Related to Our Collaborators

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

Our ability to generate revenue growth and become profitable is dependent, in part, upon our ability to enter into additional collaborative arrangements, and upon our ability and that of our collaborative partners to successfully commercialize products incorporating, or based upon, our work.

We must form research collaborations and licensing arrangements with several partners at the same time in order to execute our business strategy. We currently have a number of collaborative relationships and only three substantial collaborative relationships, including two with Roche. To succeed, we will have to maintain or expand these relationships and establish additional collaborations. 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, sign additional subscribers to our database services, or successfully expand our medicinal chemistry or pharmacogenetics businesses.

If our collaborations are not successful or if we are not able to manage multiple collaborations successfully, our programs will suffer. If we increase the number of collaborations, it will become more difficult to manage the various collaborations successfully and the potential for conflicts among the collaborators as to rights to the technology and products generated under work conducted with us will increase.

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

We depend 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 our technology. Our agreements with collaborators typically allow them significant discretion in electing whether to pursue such activities. We cannot control the amount and timing of resources collaborators will devote to our programs or potential products.

In addition, our arrangements may place responsibility for key aspects of information technology, product development and marketing on our collaborative partners. If our collaborators fail to perform their obligations, our information technology products could contain erroneous data, design defects, viruses or software defects that are difficult to detect and correct and may adversely affect our revenues and the market acceptance of our products.

Our collaborators may stop supporting our products or providing services to us 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 our collaborators and us 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.

Risks Related to Our Industry

Concerns regarding the use of genetic testing results may limit the commercial viability of any products we develop.

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 our collaborators and/or we may develop.

We may not be able to compete successfully with other companies and government agencies in the development and marketing of product 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 our other areas of business, including drug discovery and development as well as database services and healthcare informatics, is intense and is expected to increase. We have numerous competitors, including major pharmaceutical and diagnostic companies, specialized biotechnology firms, universities and other research institutions, and other government-sponsored entities and companies providing healthcare information products. Our collaborators, including Roche and Merck, may also compete with us. Many of our competitors, either alone or with collaborators, have considerably greater capital resources, research and development staffs and facilities, and technical and other resources than we do, which may allow them to discover important genes before we do. We believe that a number of our competitors are developing competing products and services that may be commercially successful and that are further advanced in development than our potential products and services. To succeed, we, together with our 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 we or our collaborators are successful in developing effective products or services, our products and services may

not successfully compete with those of its competitors. Our competitors may succeed in developing and marketing products and services that are more effective than ours or that are marketed before ours.

Competitors have established, and in the future may establish, patent positions with respect to gene sequences related to our 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 our research projects and make it more difficult for us to compete. We may also face competition from other entities in gaining access to DNA samples used for research and development purposes. Our competitors may also 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.

We expect competition to intensify as technical advances are made and become more widely known. Our future success will depend in large part on maintaining a competitive position in the genomic field. Others or our rapid technological development may result in products or technologies becoming obsolete before we recover the expenses we incur in developing them.

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.

Changes in outsourcing trends and economic conditions in the pharmaceutical and biotechnology industries could adversely affect our growth.

Economic factors and industry trends that affect our primary customers, pharmaceutical and biotechnology companies, also affect our business. For example, the practice of many companies in these industries has been to outsource to organizations like us to conduct genetic research, clinical research, sales and marketing projects and chemistry research and development projects. If these industries reduce their present tendency to outsource those projects, Our operations, financial condition and growth rate could be materially and adversely affected. These alliances and arrangements are both time consuming and complex and we face substantial competition in establishing these relationships. In addition, our ability to generate new business could be impaired by general economic downturns in our customers' industries. We have experienced increasing pressure on the part of our customers to reduce expenses, including the use of our services as a result of negative economic trends generally and in the pharmaceutical industry. While we have continued to increase our contract revenues despite this environment, we may not be able to continue this trend should these economic conditions intensify or worsen. If pharmaceutical and biotechnology companies discontinue or decrease their usage of our services, including as a result of the slowdown in the overall U.S. economy, our revenues and earnings could be lower than we expect and our revenues may decrease or not grow at historical rates.

If regulatory approvals for products resulting from our gene discovery programs are not obtained, we 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. We cannot be certain that we can obtain regulatory approval for any drugs or diagnostic products resulting from our gene discovery programs. The regulatory process can take many years and require substantial resources. Because some of the products likely to result from our 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 our business, financial condition and results of operations, including withdrawal of the product from the market.

Our success will depend, in part, on the development and marketing of products based upon our research and development. Strict regulatory controls on the clinical testing, manufacture, labeling, supply and marketing of the products will influence our 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.

Efforts to reduce healthcare costs may reduce market acceptance of our products.

Our success will depend in part on the price and extent to which we will be paid for our 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. We cannot be certain that any third party insurance coverage will be available to patients for any products we discover or develop. If third party payors do not provide adequate coverage and reimbursement levels for our 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, our customers may reduce their research and development spending which could reduce the business they outsource to us.

Our operations involve a risk of injury or damage from hazardous materials, and if an accident were to occur, we could be subject to costly and damaging liability claims, which could have a material adverse effect on our business, financial condition and results of operations.

Our research and development activities involve the controlled use of hazardous materials and chemicals. Although we believe that our safety procedures for handling and disposing of hazardous materials comply with the standards prescribed by applicable governmental regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of an accident, we could be held liable for any damages or fines that result. Such liability could have a material adverse effect on our business, financial condition, results of operations and liquidity.

Risks Related to Our Intellectual Property

We may not be able to protect the proprietary rights that are critical to our success.

Our success will depend in part on our ability to protect our genealogy database and genotypic data and any other proprietary databases that we develop and our proprietary software and other proprietary methods and technologies. Despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. Our commercial success will depend in part on obtaining patent protection. The patent positions of pharmaceutical, biopharmaceutical and biotechnology companies, including deCODE, are generally uncertain and involve complex legal and factual considerations. We cannot be sure that:

- any of our pending patent applications will result in issued patents;
- that we will develop additional proprietary technologies that are patentable;
- that any patents issued to us or our partners will provide a basis for commercially viable products, will provide us 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 our ability to do business.

If we are unable to obtain patent protection for our technology or discoveries, the value of our proprietary resources will be adversely affected.

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 our proprietary rights is uncertain and, we cannot predict the breadth of claims allowed in any patents issued to us or others. We could also incur substantial costs in litigation if we are required to defend ourselves in patent suits brought by third parties or if we initiate 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 our products. We cannot be certain that our 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 we are holding or are granted patents we 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 us or our partners claiming damages and seeking to enjoin commercial activities relating to the affected products and processes could, in addition to subjecting us to potential liability for damages, require us or our partners to obtain a license in order to continue to manufacture or market the affected products and processes. There can be no assurance that we or our partners

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, we or our partners may be required to cease marketing our products or practicing our methods.

If expressed sequence tags, single nucleotide polymorphisms, or SNPs, or other sequence information become publicly available before we apply for patent protection on a corresponding full-length or partial gene, our 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 our or our 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 we have 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 we require 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 we can meaningfully protect our trade secrets.

Our patent protection for DG031 may provide protection for only a limited term.

The patents we licensed from Bayer for DG031 expire in 2009 and 2012. While we will seek to obtain one or more use patents protecting our proprietary rights to this compound for a longer period, we cannot be certain that we will obtain such patents or that they will adequately protect us. In addition, although we may seek to extend the term of one of the patents we licensed from Bayer and to obtain marketing exclusivity under the Hatch-Waxman Act, we cannot be certain that we will be successful. If we cannot obtain new patents or extend the term of patent protection under one of the patents we licensed from Bayer, the amount of revenues that we will be able to derive from an approved product based on these patents may be adversely affected.

Item 2. Properties

Our headquarters are in Iceland in an approximately 150,000 square-foot, three-story building, used both for our laboratories and offices. The building is 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 31,000 square feet in a building at Krokhsals 5, Reykjavik, to house additional laboratory facilities and storage including Encode's operation, and maintain a facility for approximately 5 genealogists located in Thverholt 14, Reykjavik.

Our principal executive offices and discovery laboratories in the United States are located in Woodridge, Illinois, and encompass approximately 103,000 square feet with the capability to expand our offices and laboratories to 200,000 square feet. Additionally, we occupy approximately 30,000 square feet of additional leased office and laboratory space in Lemont, Illinois, which has a lease expiration date of September 30, 2004, and an 18,000 square foot leased office and laboratory facility in Bainbridge Island, Washington, near Seattle.

We also lease approximately 6,500 square feet of office space in Waltham, Massachusetts, for business development and finance.

Item 3. Legal Proceedings

Other than claims and legal proceedings that arise from time to time in the ordinary course of its business which are not material, deCODE has no pending legal proceedings except as follows:

On or about April 20, 2002, an amended class action complaint, captioned *In re deCODE genetics, Inc. Initial Public Offering Securities Litigation* (01 Civ. 11219(SAS)), 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.

In the amended pleading, the plaintiff alleges violations of Section 11 of the Securities Act of 1933 and violations of Section 10(b) of the Securities Exchange Act of 1934 (and Rule 10b-5 promulgated thereunder) against us, the Individual Defendants and the Underwriter Defendants. In addition, the amended complaint alleges violations of Section 15 of the Securities Act of 1933, and Section 20(a) of the Securities Exchange Act of 1934 against the Individual Defendants. Generally, the amended 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; (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; and (iii) improperly used their analysts, who purportedly suffered from conflicts of interest, to manipulate the market. The amended 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 amended complaint also alleges that we and the Individual Defendants had numerous interactions and contacts with the Underwriters from which we and the Individual Defendants either knew of, or recklessly disregarded, the Underwriters' purported wrongful acts. The suit seeks unspecified monetary and rescissory damages and certification of a plaintiff class consisting of all persons who purchased shares of our common stock from July 17, 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 Scheindlin. Pursuant to the underwriting agreement executed in connection with our IPO, we have demanded indemnification from the Underwriter Defendants. The Underwriter Defendants have asserted that our request for indemnification is premature.

Pursuant to an agreement the Individual Defendants have been dismissed from the case without prejudice. Along with numerous other issuers, we moved to dismiss the complaint for failure to state a claim. On February 19, 2003, Judge Scheindlin granted our motion with respect to the Section 10(b) claims and denied the motion with respect to the Section 11 claims.

On July 31, 2003, our Board of Directors (other than Dr. Stefansson, who recused himself because he was an Individual Defendant) conditionally approved a proposed partial settlement with the plaintiffs in this matter. The settlement would provide, among other things, a release of deCODE and of the Individual Defendants for the conduct alleged in the amended complaint to be wrongful. We would agree to undertake other responsibilities under the partial settlement, including agreeing to assign away, and not assert or release, certain potential claims we may have against our underwriters. Any direct financial impact of the proposed settlement is expected to be borne by our insurers. The Board agreed to approve the settlement subject to a number of conditions, including the participation

of a substantial number of other issuer defendants in the proposed settlement, the consent of our insurers to the settlement, and the completion of acceptable final settlement documentation. Furthermore, the settlement is subject to a hearing on fairness and approval by the Court overseeing the litigation.

Due to the inherent uncertainties of litigation and the fact that the settlement is in its early stages, the ultimate outcome of this matter cannot be predicted. If the settlement is not consummated, we expect to contest the allegations against us and our officers vigorously. If we were required to pay significant monetary damages as a result of such litigation (or any other lawsuits alleging similar claims filed against us and our officers in the future), our business could be significantly harmed. Even if such suit concludes 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

On October 3, 2003, we held our annual meeting of stockholders. The results of the voting on the proposals submitted to the stockholders at this meeting were as follows:

1. Election of two Class II Directors

<u>NAME</u>	<u>FOR</u>	<u>WITHHELD</u>
Jean-Francois Formela	36,651,348	470,401
J. Neal Armstrong	36,970,938	150,811

2. Ratification of the appointment of PricewaterhouseCoopers LLP as our independent accountants for the fiscal year ending December 31, 2003

<u>FOR</u>	<u>AGAINST</u>	<u>ABSTAIN</u>
36,734,421	363,251	24,077

PART II

Item 5. Market for the Company's Common Equity and Related Stock holder Matters

The Company's Common Stock is been traded on the Nasdaq National Market under the symbol "DCGN". 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:

	<u>High</u>	<u>Low</u>
2002		
First Quarter	\$10.10	\$5.52
Second Quarter	\$ 6.30	\$3.50
Third Quarter	\$ 4.99	\$1.55
Fourth Quarter	\$ 2.79	\$1.60
2003		
First Quarter	\$ 3.25	\$1.70
Second Quarter	\$ 3.95	\$1.78
Third Quarter	\$ 5.41	\$2.45
Fourth Quarter	\$ 9.74	\$4.61

We have neither declared nor paid dividends on our common stock since our inception and do not plan to pay dividends in the foreseeable future. Any earnings that we may realize will be retained to finance our growth.

As of March 2, 2004, there were 5,017 holders of record of the Common Stock.

On September 15, 2003, we issued (i) 178,968 shares of common stock to Polaris Venture Partners, L.P., upon the net exercise of a warrant for 189,496 shares with an exercise price of \$1.00 per share, and (ii) 10,707 shares of common stock to Polaris Venture Partners Founders' Fund, L.P., upon the net exercise of a warrant for 11,337 shares with an exercise price of \$1.00 per share. On September 25, 2003, we issued (i) 118,055 shares of common stock to Atlas Venture Fund II, L.P., upon the net exercise of a warrant for 125,000 shares with an exercise price of \$1.00 per share, and (ii) 118,055 shares of common stock to Atlas Venture Europe Fund B.V., upon the net exercise of a warrant for 125,000 shares at an exercise price of \$1.00 per share. The issuances of these securities were deemed to be exempt from registration under the Securities Act by virtue of Section 4(2) as transactions not involving any public offering. The transferees made appropriate representations as part of the settlements and had, or had access to, adequate information about deCODE. Appropriate legends are affixed to the stock certificates that were issued.

See Item 12 of this Annual Report on Form 10-K regarding the information called for by Item 201(d) of Regulation S-K.

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 following data has been derived from consolidated financial statements audited by PricewaterhouseCoopers, independent auditors. Consolidated balance sheets at December 31, 2003 and

2002 and the related statement of income and cash flows for the three years ended December 31, 2003 and the notes thereto appear elsewhere in this annual report.

	For the Year-Ended December 31,				
	2003	2002	2001	2000	1999
	(Tabular amounts in thousands, except share and per share amounts)				
Revenue	\$ 46,811	\$ 41,065	\$ 26,099	\$ 21,545	\$ 16,591
Operating expenses					
Research and development, including cost of revenue .	63,466	89,612	70,954	45,742	33,213
Selling, general and administrative	17,178	18,685	12,402	15,373	8,221
Impairment, employee termination and other charges(4)	951	64,790	0	0	0
Total operating expenses	81,595	173,087	83,356	61,115	41,434
Operating loss	(34,784)	(132,022)	(57,257)	(39,570)	(24,843)
Interest income	1,151	2,954	6,925	7,378	2,188
Interest expense	(3,478)	(3,079)	(440)	(495)	(549)
Other non-operating income and (expense), net	1,988	(72)	(1,675)	1,568	(584)
Net loss before cumulative effect of change in accounting principle	(35,123)	(132,219)	(52,447)	(31,119)	(23,788)
Cumulative effect of change in milestone revenue recognition method	0	333	0	0	0
Net loss	(35,123)	(131,886)	(52,447)	(31,119)	(23,788)
Accrued dividends and amortized discount on preferred stock(1)	0	0	0	(7,541)	(7,543)
Premium on repurchase of preferred stock	0	0	0	0	(30,887)
Net loss available to common stockholders(1)	\$ (35,123)	\$ (131,886)	\$ (52,447)	\$ (38,660)	\$ (62,218)
Basic and diluted net loss per share:					
Net loss before cumulative effect of change in accounting principle	\$ (0.68)	\$ (2.69)	\$ (1.26)	\$ (1.81)	\$ (12.34)
Cumulative effect of change in milestone revenue recognition method	0.00	0.01	0.00	0.00	0.00
Net loss	\$ (0.68)	\$ (2.68)	\$ (1.26)	\$ (1.81)	\$ (12.34)
Shares used in computing basic and diluted net loss per share(1)	51,507,869	49,098,254	41,634,009	21,381,256	5,042,844
Pro forma amounts assuming new milestone revenue recognition method is applied retroactively:					
Revenue			\$ 23,182	\$ 22,670	
Net Loss			(55,364)	(29,994)	
Basic and diluted net loss per share			(1.33)	(1.40)	
Other non-GAAP Financial Data:					
Pro forma basic and diluted net loss per share(2) . . .				\$ (0.91)	\$ (0.91)
Shares used in computing pro forma basic and diluted net loss per share(2)				34,228,300	26,156,154

	As of December 31,				
	2003	2002	2001	2000	1999
	(In thousands)				
Cash and cash equivalents	\$ 68,669	\$ 87,244	\$153,061	\$194,145	\$ 29,846
Total assets(3)(4)	183,475	213,417	249,900	248,901	80,527
Total long-term liabilities	49,874	56,533	44,428	3,519	5,471
Redeemable, convertible preferred stock(1) . . .	0	0	0	0	121,589
Total stockholders' equity (deficit)(1)(3)(4) . . .	93,407	125,246	170,733	216,269	(72,772)

- (1) 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.
- (2) 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.
- (3) In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange accounted for as a purchase transaction. Total consideration for the acquisition was \$85,845,000. deCODE's Statements of Operations include the results of MediChem from March 18, 2002, the date of acquisition.
- (4) In September 2002, deCODE recorded impairment, employee termination benefits and other charges in the total amount of \$64,790,000.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations as of December 31, 2003 and for the three years then ended should be read in conjunction with the audited consolidated financial statements and notes thereto set forth elsewhere in this report.

This annual report on Form 10-K contains forward-looking statements, including our expectations of future industry conditions, strategic plans and forecasts of operational results. Various risks may cause our actual results to differ materially. A list and description of some of the risks and uncertainties is contained below and in the summary of risk factors included in Item 1.

Overview

We are a population genetics company developing drugs and DNA-based diagnostics based upon our discoveries in the inherited causes of common diseases. Our population approach and resources have enabled us to identify genes and targets directly involved in the development of many of the most common diseases. We are focused on turning these findings into a growing pipeline of products and services which we believe will be able to combat the causes of disease, not just the signs and symptoms. Our approach to research and development brings together three key types of non-personally identifiable data derived from our population research in Iceland: genotypic and disease data from more than 100,000 volunteer participants in some 50 disease-gene research programs and information that can be analyzed in tandem with genealogical data linking together the entire present-day population of Iceland and going back to the settlement of the country in the ninth century.

Our primary focus is on the discovery and commercialization of novel therapeutics based on genetic information identified in our population-based gene discovery work. Through the acquisition in March 2002 of MediChem Life Sciences and its subsidiary, Emerald Biostructures, now our pharmaceuticals and biostructures groups, we have integrated capabilities for applying genetic findings to the development of drugs, both through our own programs and in alliance with corporate partners. We are also applying the links we have identified between genetic factors and disease to create DNA based tests which can also be used to identify patients with increased risk of developing a disease or to predict which patients will respond well to a given drug therapy. We believe that such tests will become a standard part of healthcare within the coming decade, making it possible to gauge individual predisposition to a particular illness and to design effective preventive strategies; to complement traditional clinical diagnoses; and to identify patients who are likely to respond or not respond to particular drugs. We are also marketing software systems we have developed, making correlations between genetic variation and disease and drug response.

We currently derive revenues primarily from research funding and other service fees from our collaborative partners; milestone payments, and upfront, exclusivity, technology access and technology development fees under our collaboration agreements comprise most of the rest of our revenues. Our expenses consist primarily of research and development expenses. While we are entitled to royalties or profit sharing under the terms of our agreements, due to the extended time period for the development and commercialization of a saleable product or therapy, we have not yet received royalties or profit sharing under any of our contracts and expect that we will not do so for several years, if at all. In addition to conducting work on our targets in our collaborative and internal programs, our pharmaceuticals group provides drug discovery work for our fee-for-service customers. Our other service offerings include protein crystallization products and protein structure analysis contract services through our Seattle-based biostructures group; pharmacogenomics and clinical trials services through our wholly-owned subsidiary Encode; and DNA analysis services through our genotyping laboratory in Reykjavik.

As we continue our discovery in common diseases, we aim to conserve ample resources to bring our products forward to the market, and we are constantly evaluating the optimal balance between several factors crucial to our strategy. These include the level of our investment in research and development, the preservation of cash resources and their deployment for product development, and the financing environment. Our goal is to bring products to the market and, in that, make the company profitable. We believe the best means in achieving that objective is to operate the company on a sustainable basis such that it will have the staying power to turn our discoveries into products in the marketplace. As a means to this end, in late 2002 and in the face of an uncertain environment in the capital markets, we undertook measures aimed at improving our operational efficiency and at lowering our operating costs. As a benchmark, we set ourselves the goal of running our base research and development activities on a cash-neutral basis. However, this objective was not an end unto itself but rather a means to ensure that we continued to have on hand the resources to advance our key drug and diagnostic programs.

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, 2003 we had an accumulated deficit of \$330.2 million. While we achieved positive cash flow from operations for the third quarter of 2003, we believe that the initiation of substantial new activities such as the conduct of clinical trials on deCODE-owned compounds will require significant additional expenditures. For example, in our target discovery work on our findings in myocardial infarction, we have in-licensed a compound which acts upon our principal target and for which we are preparing to enter directly into a Phase II clinical trial. We expect to seek similar in-licensing opportunities for other compounds in other diseases and any success may increase our cash requirements. We anticipate incurring additional net losses at least through the next several years, due to, among the above-mentioned factors, depreciation and amortization, as well as stock-based compensation and other non-cash charges. We expect that our

revenues and 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. We do not believe that comparisons of our quarter-to-quarter performance are a good indication of future performance.

We are highly susceptible to conditions in the global financial markets and in the pharmaceutical industry. Positive and negative movement in those markets will continue to pose challenges and opportunities to us. Previous downturns in the market valuations of biotechnology companies and of the equity markets more generally have restricted our ability to raise additional capital on favorable terms. To the extent that equity markets are risk-averse, our ability to raise capital will be adversely affected. However, we believe that we have sufficient cash resources to continue to fund our current research and operations for several years, and we are also investigating the possibility of alternative avenues of financing for our product development programs.

The pharmaceutical industry, which is the principal customer base for our gene-discovery and contract chemistry businesses, is experiencing difficulties in maintaining historical rates of growth. This presents near-term challenges and significant longer-term opportunities. One of the main challenges facing the pharmaceutical industry is developing pipelines of effective new drugs to treat major indications. As many leading brand-name drugs come off patent and face generic competition, developing successful new medicines will become critical for filling the gap. In the short term, the financial pressures on pharmaceutical companies may be reflected in their research and development spending, making it more difficult for us to sign corporate alliances with significant upfront funding, or lengthening the time required to negotiate such deals. We believe that in the medium to longer term, however, companies such as ours may be well positioned to play an important role in filling the gap in the pipeline of new drugs, either on their own or as partners of pharmaceutical companies. Our gene discovery programs are aimed at identifying novel drug targets that are involved in the basic biology of common diseases and we are focused on discovering new drugs against these targets, both on our own and with major pharmaceutical partners. Our partnerships with Roche and Merck demonstrate that the industry is already investing in the development of new therapeutics based on our approach. Our recent in-licensing of a developmental compound from Bayer demonstrates that the industry may be prepared to provide companies such as ours with rights to shelved compounds that may be brought forward in clinical development in indications other than those for which the compounds were originally designed.

Collaborations and Alliances

Collaborations and further growth in our medicinal chemistry, pharmacogenomics and informatics services 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. It is also dependent on our ability to maintain and grow our service lines of business. 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, sign additional subscribers to our database services, or successfully expand our medicinal chemistry or pharmacogenomics businesses. Our failure to successfully develop and market products over the next several years, or to realize product revenues, would have a material, (or materially) 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 in the near term. It may be several years before product revenues materialize, if they do at all.

Acquisitions

As part of our business strategy, we continue to consider joint development programs and merger and acquisition opportunities that may provide us with products in late-stage development, intellectual

property or financial resources, or with capabilities that will help accelerate our downstream drug discovery efforts.

On March 18, 2002, we acquired MediChem Life Sciences, Inc. in a stock-for-stock exchange accounted for as a purchase transaction. The acquisition of MediChem is a central element in our strategy to transform deCODE from a company focused on gene discovery into a biopharmaceutical company capable of creating and capturing the greatest possible value from its discovery capabilities. The acquisition has benefited us in three ways: enabling us to advance our in-house programs in drug discovery; enabling us to negotiate much more favorable terms in our alliances with pharmaceutical companies, in which we take our discoveries much further down the drug development process and receive a more significant share of revenues from sales of products that are developed; and providing us with a service business generating revenue in the short term and maintaining the infrastructure for conducting drug discovery work on several programs at once.

The total consideration for the acquisition was approximately \$85.9 million, which consists of deCODE common stock issued in exchange for outstanding MediChem common stock (\$79.7 million), MediChem employee stock options assumed (\$2.3 million) and deCODE transaction costs (\$3.9 million).

We have recorded the transaction as a purchase for accounting purposes and have allocated the purchase price, based upon independent valuations, to the assets purchased and liabilities assumed based upon their respective estimated fair values. Identifiable intangible assets include developed technology, patents, customer and other contracts and agreements that have estimated useful lives ranging from three to ten years. In the first quarter 2002 we recorded a charge to earnings for acquired in-process research and development amounting \$0.5 million. In addition, amortization charges for other identifiable intangibles recorded in the MediChem acquisition will amount to approximately \$1.2 million annually. Under Statement of Financial Accounting Standards No. 142 (SFAS No. 142), resulting goodwill (\$62.3 million) will not be amortized but is subject to annual impairment testing (refer below).

Our statements of operations include the results of MediChem from March 18, 2002, the date of acquisition. The following unaudited pro forma financial information presents our consolidated results as if the acquisition of MediChem occurred at the beginning of 2002. Nonrecurring charges, such as the acquired in-process research and development charge of \$0.5 million is not reflected in the following pro forma financial information. This pro forma information is not intended to be indicative of future operating results.

	For the Year Ended December 31, 2002
	(In thousands, except per share amount)
Total revenues	\$ 45,153
Net loss	(136,318)
Basic and diluted net loss per share	(2.68)

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) 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 revenue recognition, property and equipment, intangible assets, materials and supplies, derivative financial instruments, income taxes, litigation and other contingencies. 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 will not differ from the estimates referred to above.

We believe the following policies to be the most critical to an understanding of our financial condition and results of operations because they require us to make estimates, assumptions and judgements about matters that are inherently uncertain.

Collaborations and Revenue. Our collaborative arrangements and the recognition of revenue in such arrangements is the accounting policy most critical to us. 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 we are 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.

Our revenues from research and development collaboration agreements are recorded and recognized in accordance with the applicable performance requirements and terms of the respective contracts, generally either (i) as contract research costs are incurred, usually ratably over the period of effort, (ii) according to the level of efforts expended based on the ratio of contract research costs incurred to expected total costs, or (iii) upon the achievement of substantive milestones. Funding payments are not refundable in the event that the related efforts are not successful. Non-refundable, up-front payments we receive are deferred and recognized on a straight-line basis over the contract term. Our contracted chemistry services revenue from negotiated rate contracts are recognized on a per diem basis as services are rendered or on the percentage of completion method based on the ratio of costs incurred to expected total costs for fixed fee contracts based upon the terms of the underlying contract. Any losses on contracts are provided for when they are determinable. Included in revenue are billings to customers for the cost of materials purchased by us under the contract.

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 as 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.

Revenue estimates are reviewed and revised throughout the lives of our contracts and are made based upon current facts and circumstances. If changes in these estimates or other material adjustments to revenue are identified, the adjustments to profits resulting from such revisions will be recorded on a cumulative basis in the period in which the revisions are made.

In November 2002, the Emerging Issues Task Force (EITF) reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" (EITF No. 00-21). EITF No. 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of

EITF No. 00-21 were applicable to revenue arrangements entered into fiscal periods beginning after June 15, 2003. Our adoption of EITF No. 00-21 did not impact revenue for 2003; however, this pronouncement may have a significant impact on timing of revenue recorded under future agreements, including the possible deferral of milestone payments received during the research period and recognition over the remaining period of performance.

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

- *Long-lived 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. In September of 2002, we implemented a cost reduction program and reduced total worldwide headcount by approximately 200 employees, focusing in particular on utilizing ongoing process automation and increased productivity in the core genetics operations in Reykjavik. Stemming from this initiative and together with our consideration of significant and pervasive declines in the market environment for pharmaceutical and biotech industries, we determined that impairment tests of the carrying value of our goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem acquisition, should be performed. We completed these tests and recorded impairments and write-downs of long-term assets amounting to \$60.9 million for the year-ended December 31, 2002. There were no events in 2003 that triggered an impairment review nor did our annual review indicate any recoverability issues. Should we determine that there has been further impairment of our fixed assets, goodwill or other intangible assets in the future we would suffer an increase to our net loss or a reduction of our net income in the period such a determination is made. 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 resulting in an increase to depreciation expense of \$1.4 million in that year. 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.
- *Materials and supplies.* We value our materials and supplies at the lower of cost or market, cost being determined on the first-in, first-out method. We apply judgment in determining necessary provisions for slow moving, excess and obsolete materials and supplies based on historical experience and anticipated usage, giving effect to general market conditions. Any rapid technological changes or future business developments could result in an increase in the amount of obsolete materials and supplies on hand. Furthermore, if our estimates of our needs for materials and supplies prove to be inaccurate, additional provision may be required for incremental excess and obsolete items. We recorded charges for write-down of obsolete and excess materials and supplies of \$0.8 million, \$3.4 million and \$3.0 million for the years ended December 31, 2003, 2002 and 2001, respectively. In 2003, we used materials and supplies for which we had made provisions for in prior years as slow-moving, excess and obsolete, benefiting otherwise reported research and development expenses by \$0.8 million.
- *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 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. We have entered into interest rate and foreign currency risk arising from long-term debt obligations denominated in Icelandic krona. To this end, we have entered into two interest rate and cross-currency swaps to manage interest rate and foreign currency risk. These interest rate and cross-currency swaps are designated as

economic hedges of fixed rate foreign currency debt, but do not qualify for hedge accounting under SFAS No. 133. At each reporting date, the estimated fair value of these instruments is recorded on our balance sheet and the resulting unrealized gain or loss is included as an other non-operating income or expense in our Statements of Operations. We estimate the fair value of these instruments using information that is available at the time of such determination; however, the financial markets for these instruments are immature and, as a result, there is significant judgment inherent in the estimating process. Consequently, subsequent changes in the market for such instruments and/or our views with respect to such and the estimate of the fair value of these instruments could materially affect our results of operations for any particular quarterly or annual period.

- *Income Taxes.* Significant estimates are required in determining our provision for income taxes, including interpretations of existing tax laws and regulations. Various internal and external factors may have favorable or unfavorable effects on our future effective tax rate. These factors include, but are not limited to, changes in tax laws, regulations and/or rates, changing interpretations of existing tax laws or regulations, future research and development spending and future levels of capital expenditures.

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 primarily to our history of operating losses and the expectation that such losses will continue into the foreseeable future, we have concluded that currently 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. In doing so, we assess the likelihood of any adverse judgements or outcomes with respect to legal and other matters as well as potential of probable losses. We base our accruals on information available at the time of such determination. 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 from the Years Ended December 31, 2003, 2002 and 2001

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. 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, 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.

Financial highlights for the year-ended December 31, 2003 include:

- Our revenue increased to \$46.8 million for the year ended December 31, 2003 as compared to \$41.1 million and \$26.1 million for the years ended December 31, 2002 and 2001, respectively. This growth reflects continued expansion across our product development and other service businesses, including milestone revenue from our existing product development alliances and the formation of new corporate partnerships. Importantly, from our revenues we were able to derive the funds necessary to sustain our investment in research and development including investment in clinical development, as we have done for DG031 in heart attack.
- We decreased our research and development expenses to \$63.5 million for the year-ended December 31, 2003 as compared to \$89.6 million and \$71.0 million for the years ended December 31, 2002 and 2001, respectively. The 29% decrease in 2003 as compared to 2002 is principally attributable to the cost reduction measures we implemented late in 2002, taking advantage of investments in automation in our disease-gene research programs. The principal result of this effort has been a marked increase in productivity enabling us to continue to accelerate both our discovery and downstream work with substantially lower costs.
- At December 31, 2003, we had \$74.7 million in cash and cash equivalents, including \$6.0 million in restricted cash. Our cash resources are down \$18.6 million from our year-end 2002 balance on \$20.3 million of cash used in operating activities together with \$9.6 million of debt service and \$11.4 million of new financing proceeds.

Revenue. Our business strategy is focused on turning our discoveries and assets into a broad range of products for the market, at the same time as we leverage our capabilities to generate near-term service revenue. In some instances, we are pursuing product development on our own. In others, we have formed alliances with pharmaceutical and biotechnology firms through which we can cover some of the cost of conducting basic research and spread the risk and investment involved in product development. We have entered into research, development and commercialization alliances and collaborations with major pharmaceutical and biotechnology companies across our business. Depending on the nature of each prospective business opportunity, the key components of the commercial terms of such alliance arrangements typically include one or more of the following: research funding; up-front, exclusivity, technology access, and technology development fees; milestone payments; license or commercialization fees; and royalties or profit sharing from the commercialization of products.

Significant elements of our revenue is summarized as follows:

	For the Year Ended December 31,		
	2003	2002	2001
	(In thousands)		
Research funding and service fees	\$35,718	\$36,641	\$18,182
Milestone payments	5,794	1,462	6,917
Up-front, exclusivity, technology access, and technology development fees	4,000	2,500	1,000
Other	1,299	462	0
	<u>\$46,811</u>	<u>\$41,065</u>	<u>\$26,099</u>

Collaborations with our most significant partners include:

F. Hoffmann-La Roche (Roche).

Therapeutics. In 1998 we entered into a research collaboration and cross-license agreement with Roche, which terminated in 2002, under which we identified key genetic factors involved in ten common diseases: osteoarthritis, Alzheimer's disease, schizophrenia, PAOD, stroke, osteoporosis, obesity, anxiety, non-insulin-dependent diabetes and rheumatoid arthritis. In January 2002, we entered into a new three-year agreement with Roche focused on turning the achievements of our 1998 gene discovery collaboration into novel therapeutics. The 2002 agreement provided that we would collaborate with respect to four diseases that had been the subject of the 1998 agreement. We are currently collaborating on two of those diseases. Under the 2002 agreement we have received \$16,000,000 in research funding and may receive an additional \$4,000,000 in research funding during the remainder of the term of the agreement. The agreement provides that upon the development of specified compounds during the term of the agreement and for a specified period thereafter we may receive milestone payments, the amount of which will depend on the type of compound developed. In addition, we will be entitled to receive royalties on the sales of drugs that are developed. We expect that we will not receive research funding under the 2002 agreement after February 1, 2005, when the research term ends, unless we and Roche decide to extend the collaboration beyond that time.

Diagnostics. In June 2001, we signed a five-year alliance with Roche's diagnostics division to develop and market DNA-based diagnostics for major diseases. More recently we have added research programs aimed at developing diagnostics to predict drug response for major therapeutics used to treat those diseases, in order to help select the most effective treatment of those available. Under the agreement we have received \$28,625,000 in research funding, up-front fees and milestone payments. We may receive \$15,625,000 in additional research funding over the remainder of the term of the agreement as well as milestone payments upon the achievement of research and development milestones and royalties on the sales of diagnostic products developed.

Revenues from these alliances with Roche amounted to \$19.9 million, \$16.9 million, and \$25.2 million for the years ended December 31, 2003, 2002 and 2001, respectively.

Merck & Co, Inc. (Merck).

Obesity. In September 2002, we entered into an alliance with Merck aimed at developing new treatments for obesity. Under the alliance, we are combining our research efforts in the genetics of obesity to identify, validate and prioritize a series of drug targets to take into development. Under the terms of the three-year agreement, which can be extended on a year-to-year basis upon the consent of the parties, we have received research funding, technology access fees and milestone payments in the aggregate amount of \$13,750,000 and may receive research funding and technology access in the future of \$10,750,000. In addition, we may receive further research milestone payments and we may receive milestone payments as compounds developed under the alliance advance in the development process and royalties on successfully marketed drugs. Merck may terminate the agreement at any time upon 90 days' notice or after September 26, 2004 upon 30 days' notice in the event that the research program fails to achieve certain specified goals.

Information Rich Clinical Trials. In February 2004, we entered into an agreement with Merck under which we will conduct information-rich clinical trials on a range of Merck's developmental compounds. The term of the alliance is seven years, subject to termination by Merck after five years. We will, at any given point over the course of the alliance, be conducting concurrent trials on as many as five Merck compounds. Under the terms of the agreement, we will receive royalties on sales of drugs and diagnostics developed as part of the alliance. We will receive a one-time technology access fee, will share research funding for the clinical development of compounds and pharmacogenomic analysis, and will receive milestone payments as compounds or pharmacogenomic tests reach the market. In addition, Merck has purchased 689,703 shares of our common stock at a price of \$14.50 per share, and has received a warrant to purchase up to 1,724,257 of additional shares of our common stock at \$29.00 per share over the next five years.

Revenues from the therapeutics and other alliances with Merck during the periods presented amounted to \$9.2 million, and \$1.6 million and \$0 for the years ended December 31, 2003, 2002 and 2001, respectively.

Applied Biosystems Group (ABG). In the fourth quarter of 2002, we terminated and entered into a related settlement agreement regarding two agreements with ABG that had been in place since July 2001. Our accounting policy for the Joint Development and Commercialization Agreement with ABG to develop genotypic analysis products provided for revenue related to ABG's payment obligation and our development costs associated with the Agreement to be deferred until the development efforts were completed or the Agreement is terminated, if earlier, as was the case. As a result, deferred revenue of \$6.3 million was recognized in the fourth quarter of 2002 when the parties reached agreement as to termination.

Revenue for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Revenue	\$46,811	\$41,065	\$26,099	\$5,746	14%	\$14,966	57%

The 14% increase in revenue in 2003 from 2002 is largely accountable to there being a full year of research funding payments and amortization of technology access and exclusivity fees in our collaboration with Merck and from milestone payments received in our collaborations with Roche and with Merck, partially offset by the termination of the ABG collaboration in the fourth quarter of 2002. The 57% increase in revenue in 2002 from 2001 is attributable to the addition of deCODE's pharmaceuticals and biostructures groups and the totality of revenue recognized under deCODE's contract with ABG, offset by the recognition of revenue from milestone achievements under the 1998 research collaboration with Roche during 2001 that did not recur in 2002. We expect that our revenues will fluctuate from quarter to quarter and that such fluctuations may be substantial especially because progress in our scientific work, including milestone payments that are related to progress, can fluctuate between quarters.

Research and Development, including Cost of Revenue. Research and development expenses for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Research and Development, including							
Cost of Revenue	\$63,466	\$89,612	\$70,954	\$(26,146)	(29)%	\$18,658	26%

Our 2003 research and development costs reflects spending related to the range of our disease-gene research programs, including product development and downstream work on targets already identified as well as our pharmaceutical and biostructures groups, which are now an integral part of our operations. The 29% decrease in 2003 as compared to 2002 is principally attributable to the cost reduction measures we implemented late in 2002, taking advantage of investments in automation in our disease-gene research programs and with notable reductions in our usage of chemicals and consumables (\$7.4 million), salary and related expenses (\$4.8 million), costs related to our clinical collaborations (\$3.4 million) and our research and development property-related and other overheads (\$3.2 million). Further, productivity gains have enabled acceleration in our basic gene and target discovery work while also making available the resources to undertake preparations for clinical work on our lead drug development programs. Our research and development expenses for 2003 as compared to 2002 also reflect a relative net benefit of \$6.3 million resulting from (i) a reversal of accrued database license fees—discussed further below, (ii) materials and supplies we used for which there was relatively little or no attendant cost as a result of the settlement agreement we entered into with ABG in 2002 or for which we had made provisions for in prior years as slow moving, excess or obsolete according to our accounting policy, and (iii) development funding received from IBM, partially offset by (iv) license fees to Bayer AG with respect to the small molecule compound, DG031. The increase in 2002 as compared to 2001 reflects spending related to the range of our disease-gene research programs and the initiation of downstream work on targets already identified as well as, from March 2002, the addition of our pharmaceutical and biostructures groups.

On January 22, 2000, the Icelandic Ministry of Health and Social Security (the “Ministry”), granted deCODE an operating license (the “License”) to create, operate and commercialize the Icelandic Health Sector Database (the “IHD”), or the License. As required by the License, and concurrently with its issuance, deCODE entered into an agreement (the “Agreement”) with the Ministry whereby deCODE would be obligated to pay the Icelandic government a fixed annual fee of 70 million Icelandic kronas per year (approximately \$1.0 million per year as of December 2003) and an additional annual fee of 6% of its net profit, up to a maximum of 70 million Icelandic krona per year as a consideration for the rights granted to deCODE under the License. Through June 2003 and December 31, 2002, \$3.2 million and \$2.6 million, respectively, of these annual fees had been provided for and included in other accrued expenses. Under the terms of the Agreement, certain events needed to take place in order for the fixed annual fee to become due, including the consummation of certain data transfer agreements with the two largest Icelandic hospitals, which have subsequently merged to form the National University Hospital (“NUH”). No such agreement with the NUH has been consummated, and the IHD has not been commercialized primarily because the Icelandic Data Protection Authority has not issued the required security certification. In light of the development of our business since the Agreement was entered into, the lack of the required agreement with the NUH and the fact that the Icelandic Data Protection Authority has not issued the required security certification, we do not expect to operate the IHD under the terms of the Agreement. As such, management’s estimation after consultation with legal counsel is that it is no longer probable that the accrued fixed annual fee will become due, and accordingly, a reversal of \$3.2 million of the accrued fees in the third quarter of 2003, has reduced recorded research and development expenses for the year ended December 31, 2003.

Selling, General and Administrative Expenses. Selling, general and administrative expenses for the years ended December 31, 2003, 2002 and 2001 are as follows:

				2003 as Compared to 2002		2002 as Compared to 2001	
	2003	2002	2001	\$ Change	% Change	\$ Change	% Change
				(In thousands, except %)			
Selling, General and Administrative	\$17,178	\$18,685	\$12,402	\$(1,507)	(8)%	\$6,283	51%

The 8% decrease in 2003 as compared to 2002 reflects the impact of the cost reduction programs implemented in late 2002, with notable reductions in our legal and other third-party service costs (\$2.0 million) and in our travel and other overhead expenses (\$0.9 million), more than making up for approximate increases in our outside auditing expenses (\$0.4 million) and in our director's and officer's insurance premiums (\$0.5 million). The increase in 2002 as compared to 2001 results from expanded sales efforts across our businesses and from the addition of selling, general and administrative costs of our pharmaceutical and biostructures groups from March 2002, offset somewhat by a one-time, non-cash litigation settlement in 2001.

Stock Based Compensation and Remuneration Expense. Stock based compensation and remuneration expense for the years ended December 31, 2003, 2002 and 2001 are as follows:

				2003 as Compared to 2002		2002 as Compared to 2001	
	2003	2002	2001	\$ Change	% Change	\$ Change	% Change
				(In thousands, except %)			
Stock Based Compensation and Remuneration Expense	\$2,440	\$3,048	\$4,651	\$(608)	(20)%	\$(1,603)	(34)%

With little compensation expense 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.

Impairment, Employee Termination Benefits and Other Costs. Impairment, employee termination benefits and other costs for the years ended December 31, 2003, 2002 and 2001 are as follows:

				2003 as Compared to 2002		2002 as Compared to 2001	
	2003	2002	2001	\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Impairment, Employee Termination Benefits and Other Costs	\$951	\$64,790	\$0	\$(63,839)	(99)%	\$64,790	100%

In September 2002, we implemented a cost reduction program aimed at achieving positive operating cashflow from existing operations by the end of 2003. In this regard, we reduced total worldwide headcount, focusing in particular on utilizing ongoing process automation and increased productivity in the core genetics operations in Reykjavik. Stemming from this initiative and together with our consideration of significant and pervasive declines in the market environment for pharmaceutical and biotech industries, we determined that impairment tests of the carrying value of our goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem acquisition, should be performed. We have recorded the following impairment, employee termination benefits and other charges in the year-ended December 31, 2002:

	(In thousands)
Employee termination benefits	\$ 2,158
Impairment of goodwill	53,400
Impairment of property and intangible asset	2,715
Write-down of assets held for sale	2,706
Write-down of equipment	2,053
Obsolete and excess materials and supplies	1,758
	<u>\$64,790</u>

During the year ended December 31, 2003, deCODE recorded \$951,000 of additional employee terminations benefits. The following summarizes the charges, payments and unpaid termination benefits for the years ended December 31, 2003 and 2002:

	For the Year Ended December 31,	
	2003	2002
	(In thousands)	
Balance at beginning of period	\$ 874	\$ 0
Additions to accrual	951	2,158
Payments of benefits	(1,759)	(1,284)
	<u>\$ 66</u>	<u>\$ 874</u>

The charges related to termination benefits are for 61 and 132 employees during 2003 and 2002, respectively. Benefits remaining as of December 31, 2003 are expected to be settled in cash over the first half of 2004.

For purposes of the goodwill impairment tests, we identified our reporting units, identified the assets and liabilities of the reporting units and performed impairment tests on the net goodwill associated with them. Goodwill that resulted from the acquisition of MediChem was assigned to the reporting units based upon expectations of synergies to be gained from the integration of the pharmaceutical and biostructures groups with the overall group. Goodwill impairment is deemed to exist if the net book value of a reporting unit exceeds its estimated fair value. To identify potential impairment, we compare fair value of a reporting unit with its carrying amount, including goodwill. For this purpose, we estimate fair value of a reporting unit using analyses of comparable companies and recent comparable transactions. In measuring the amount of impairment loss, we compare the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill, estimating the fair value of an impaired reporting unit using discounted cash flow methodologies. The goodwill impairment charge is associated solely with goodwill resulting from the acquisition of MediChem and results largely from significant and pervasive declines in the market environment for the pharmaceutical and biotech industries impacting, among other things, market valuations of companies operating in those industries.

In September 2002, we committed to a plan to sell our Woodridge Discovery Center and an agent was engaged and has initiated an active marketing program to locate a buyer/investor in a sale and leaseback transaction. Efforts to enter into a sale and leaseback transaction or other form of re-financing continue but have yet to be consummated. Taking into account the then estimated selling price of the building, we recorded an impairment charge in the year-ended December 31, 2002 amounting to \$2.1 million. In addition, certain intangible assets amounting to \$0.6 million were determined to be impaired utilizing a discounted cashflow methodology to estimate fair value.

In September 2002, we committed to a plan to sell our former headquarters facility that had been vacated in connection with the move to our new headquarters facility in Reykjavik's University district earlier in the year. In October 2002, an agent for the sale was engaged and an active marketing program to locate a buyer was initiated. In November 2002, terms of sale were agreed and executed with a buyer in the amount of \$2.9 million. Taking into account the selling price of the building less costs to sell, we wrote-down the property in September 2002 amounting to \$2.7 million.

In September 2002, we wrote-down the value of certain laboratory equipment no longer in use to fair value, amounting to an impairment of \$2.1 million.

Ongoing process automation and increased productivity in the core genetics operations in Reykjavik and changes in some of our target research programs have affected planned volume and timing of usage of materials and supplies. In this connection, we recorded a write-down for excess and

obsolete materials and supplies during September 2002 of \$1.8 million, which was recorded in impairment, employee termination benefits and other charges in the statement of operations.

Interest Income. Interest income for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Interest Income	\$1,151	\$2,954	\$6,925	\$(1,803)	(61)%	\$(3,971)	(57)%

In general, the decreased returns are attributable to the continued decline of prevailing interest rates but also from an overall decrease in our cash balance as we utilize the proceeds of, among other of our financing activities, our initial public offering.

Interest Expense. Interest expense for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Interest Expense	\$3,478	\$3,079	\$440	\$399	13%	\$2,639	600%

The increase in interest expense from 2002 reflects the cost of financings put into place during the late part of 2001 and early part of 2002 and, from 2003, reflects an equipment sale-leaseback financing in June as well as short-term borrowings made in the latter-half of the year.

Other Non-Operating Income and Expense, Net. Other non-operating income and expense for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Other Non-Operating Income And Expense, Net	\$1,988	\$(72)	\$(1,675)	\$2,060	2,861%	\$1,603	96%

Our other non-operating income and expense, net for the year ended December 31, 2003 comprises unrealized swap gains (\$1.8 million), the net impact of foreign exchange (\$0.1 million loss) and the gain on the sale of deCODE's investment in the common stock of eMR (\$0.3 million). Our unrealized swap gains stem from the two cross-currency swaps we entered into as economic hedges against foreign exchange rate fluctuations that may occur on our Tier A and Tier C bonds but that do not qualify for hedge accounting under SFAS No. 133. Such unrealized amounts may or may not equate to the realized gains or losses that may result in the final settlement of these swaps. The continued weakening of the U.S. dollar compared to the Icelandic krona during 2003 has been significant and these currency fluctuations may continue to adversely affect our financial results.

Income Taxes. As of December 31, 2003, we had an accumulated deficit of \$330.2 million and did not owe any Icelandic or U.S. federal income taxes nor did we pay any in the years ended December 31, 2003, 2002 or 2001. Realization of deferred tax assets is dependent on future earnings, if any. As of December 31, 2003, we had net operating losses able to be carried forward for U.S. federal income tax purposes of approximately \$31.4 million to offset future taxable income in the United States that expire at various dates through 2023. Also, as of December 31, 2003 our foreign subsidiaries had

net operating loss carryforwards of approximately \$146.3 million that expire in varying amounts beginning in 2006.

Net Loss and Basic and Diluted Net Loss Per Share. Net loss and basic and diluted net loss per share for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
(In thousands, except % and per share amounts)							
Net Loss	\$35,123	\$131,886	\$52,447	\$(96,763)	(73)%	\$79,439	151%
Basic and Diluted Net Loss Per Share ..	\$ 0.68	\$ 2.68	\$ 1.26	\$(2.00)	(75)%	\$ 1.42	113%

This is a decrease of 73% in net loss and a decrease of 75% in basic and diluted net loss per share from 2002 to 2003. Increased revenue and the introduction of significant operational efficiencies account for these decreases in the 2003 periods as compared to the 2002 periods together with the impact of significant impairment, employee termination costs and other gains and charges in all periods presented. This is an increase of 151% in net loss and an increase of 113% in basic and diluted net loss per share from 2001 to 2002. The increases in net loss and basic and diluted net loss per share in 2002 are primarily attributable to the impairment, employee termination benefits and other charges recorded offset in part by the higher average number of shares outstanding for the 2002 periods. The difference in the average number of shares outstanding is the result of our acquisition of MediChem in March 2002.

Pro Forma Net Loss and Basic and Diluted Net Loss Per Share. Pro forma net loss and basic and diluted net loss per share for the years ended December 31, 2003, 2002 and 2001 are as follows:

	2003	2002	2001	2003 as Compared to 2002		2002 as Compared to 2001	
				\$ Change	% Change	\$ Change	% Change
(In thousands, except % and per share amounts)							
Pro Forma Net Loss	\$35,123	\$131,886	\$55,364	\$(96,763)	(73)%	\$76,522	138%
Pro Forma Basic and Diluted Net Loss Per Share	\$ 0.68	\$ 2.68	\$ 1.33	\$(2.00)	(75)%	\$ 1.35	102%

Net loss and basic and diluted net loss per share were \$35.1 million and \$0.68, respectively, for the year-ended December 31, 2003 as compared to pro forma net loss and basic and diluted net loss per share calculated assuming our new milestone revenue recognition method is applied retroactively of \$131.9 million and \$2.68, respectively, for the year-ended December 31, 2002 and of \$55.4 million and \$1.33, respectively, for the year-ended December 31, 2001.

Liquidity and Capital Resources

We have financed our operations primarily through funding from research and development collaborative agreements, and the issuance of equity securities and long-term financing instruments (\$497 million from the beginning of 1999 to-date). Future funding under terms of our existing agreements is approximately \$61 million excluding milestone payments and royalties that we may earn under such collaborations.

Although we currently depend upon funded research arrangements for a significant portion of our revenue, we continue to invest in proprietary research and we will incur the costs of such research. In the near term, this will require us to continue to make investments in our in-house capabilities for downstream development which we believe will better position us to 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. The decisions we make as to these matters will affect our cash requirements.

Based upon the range of our current activities, including the clinical trial alliance we formed with Merck in February 2004, we expect to have an overall net use of cash in 2004 in our operating, investing and financing activities very similar to that used in 2003 (\$18.6 million). Debt service in 2004 together with net payments on short-term borrowings and other working capital needs are expected to amount to \$15.0 million. In February 2004, we received proceeds of \$10.0 million from Merck in their purchase of deCODE common stock. Although our capital expenditure needs and other investing activities may in the future fluctuate significantly from period to period, we currently anticipate that we will only have to make replacement capital expenditures in 2004, likely amounting to under \$1.0 million. However, while we will continue to carefully manage our basic operating costs we are also beginning to deploy the necessary resources to bring our proprietary programs into the clinic. Our most advanced proprietary drug discovery programs are in myocardial infarction and PAOD. In our myocardial infarction program we in-licensed DG031 in the fourth quarter of 2003, a compound that we will be testing in the clinic as a treatment for vascular inflammation and the prevention of heart attack. We are preparing to begin a Phase II information-rich clinical trial in 2004. In our PAOD program during 2003 we advanced into screening of lead compounds and we anticipate filing an IND in PAOD by the end of 2004 or early 2005, and entering into the clinic shortly thereafter.

Our cash requirements depend on numerous factors, including our ability to obtain new research and development collaboration agreements; to obtain and maintain contract service agreements in our pharmaceuticals, biostructures, clinical research trials and genotyping service groups; 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, the entry into clinical trials of a drug based on our discoveries, or other changes affecting our operating expenses may result in changes in the timing and amount of expenditures of our capital resources.

Under all circumstances, 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. However, 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.

	For the Year Ended December 31,		
	2003	2002	2001
	(In thousands)		
Cash provided by (used in):			
Operating activities	\$(20,331)	\$(53,161)	\$(21,470)
Investing activities	(792)	(13,355)	(47,691)
Financing activities	2,548	699	28,077
Cash and cash equivalents, at end of period	68,669	87,244	153,061

Cash and Cash Equivalents. At December 31, 2003, we had \$74.7 million in cash and cash equivalents, including \$6.0 million in connection with a financing that is restricted as to its use. Our cash resources are down \$18.6 million from our year-end 2002 balance on \$20.3 million of cash used in operating activities together with \$9.6 million of debt service and \$11.4 million of new financing proceeds. 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.

Operating Activities. Working capital needs resulted in the net use of \$1.0 million of funds in the year-ended December 31, 2003 as compared to \$3.2 million in the year-ended December 31, 2002. On account of this and significant non-cash impairment and other charges in 2002, although net loss decreased \$96.8 million in 2003 as compared to 2002, net cash used in operating activities decreased \$32.8 million. As more fully described above, this is as a result of our increased revenue base and the impacts of the cost reduction measures we implemented late in 2002. Working capital needs resulted in the net use of \$3.2 million of funds in the year-ended December 31, 2002 as compared to \$10.5 that was provided by working capital sources in the year-ended December 31, 2001. On account of this and significant non-cash impairment and other charges in 2002, although net loss increased by \$79.4 million in 2002 as compared to 2001, net cash used in operating activities increased \$31.7 million in 2002 as compared to 2001. Notably, in 2002 we made significant payments to our vendors and particularly to ABG for reagents, other supplies and DNA analyzers. In addition, into 2002 we were continuing to make significant investments in our disease-gene research programs and had taken on the costs of downstream work on targets already identified as well as were expanding our sales efforts across our businesses.

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, 2003 were \$0.9 million as compared to \$15.6 and \$47.7 million in the years ended December 31, 2002 and 2001, respectively; the latter being primarily due to the expansion of our facilities and operations. We principally made replacement capital expenditures during 2003. In 2002, we expended \$5.7 million in respect of the new building to house our operations in the University District of Reykjavik, \$2.8 million for the purchase of DNA analyzers under our supply agreement with ABG, and acquired \$3.3 million of cash in the purchase of MediChem. There were also \$3.9 million of MediChem transaction costs, resulting in a net outlay of cash for the year ended December 31, 2002 in connection with the acquisition of \$0.6 million. During 2001, we expended \$23.7 million in respect of our new headquarters building and we paid \$13.1 million for DNA analyzers acquired late in 2000. Although we expect to continue to make simply replacement capital expenditures, 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 \$2.5 million was provided in financing activities in the year-ended December 31, 2003 as compared to \$0.7 million and \$28.1 million provided in financing activities in the years-ended December 31, 2002 and 2001, respectively. Financing activities for the year ended December 31, 2003 largely consisted of the sale and 18-month leaseback of certain laboratory equipment (\$4.8 million), short-term borrowings (\$6.5 million) and installment payments on our existing debt and capital lease obligations (\$9.6 million). In 2001, we financed certain equipment purchases (\$12.0 million) in a sale and leaseback transaction and, importantly, in December 2001 we established a \$27.5 million bridge loan with an Icelandic financial institution to finance the construction of our new headquarters facility. We repaid the borrowings under the bridge loan in January and March 2002 with the proceeds from our Tier A \$13.5 million bond offering, Tier C \$7.3 million offering of privately placed bonds and Tier D \$6.7 million bank loan. \$14 million of cash that was restricted as of December 31, 2001 was provided in 2002 in the final financing (Tiers C and D) of our new headquarters facility. In addition, we repaid the existing mortgage on our Woodridge, IL discovery center (\$11.9 million) and re-financed the property in June 2002, resulting in proceeds of \$5.8 million.

We seek to maintain a desired level of floating-rate debt with respect to our overall debt portfolio denominated in U.S. Dollars. To this end, we have entered into two interest rate and cross-currency swaps to manage interest rate and foreign currency risk arising from long-term debt obligations denominated in Icelandic krona. These interest rate and cross-currency swaps with a remaining combined notional amount of 1,730 million Icelandic krona are designated as economic hedges of fixed rate foreign currency debt (Tier A and Tier C bonds), but do not qualify for hedge accounting under SFAS 133. The estimated fair value of these instruments is included in other long-term assets is \$11.2 million and \$6.4 million as of December 31, 2003 and December 31, 2002, respectively. The unrealized gain for the year-ended December 31, 2003 and 2002 resulting from the recording of these instruments together with the translation of the Tier A and Tier C bonds is \$1.8 million and \$1.1 million, respectively, and is included in other non-operating income and (expense), net in the Consolidated Statements of Operations.

On March 1, 2004, we prepaid the Tier C bonds (\$10,946,000) as a first step in an integrated refinancing of the Tier C bonds and the Tier D bank loan with an Icelandic financial institution (the "Lender"). On March 12, 2004, we entered a \$17,500,000 term loan with the Lender to refinance the Tier C bonds and the Tier D bank loan. The term loan bears interest at the three-month LIBOR plus 3% (4.11% as of March 12, 2004) until March 1, 2009, at which point, the Lender may adjust the interest margin unilaterally on the interest date March 1, 2009. The term loan is payable in twenty quarterly payments starting on March 1, 2009 and the final payment is due on December 1, 2013. The term loan can be repaid on every anniversary of the loan starting on March 1, 2006, but for which we will pay a prepayment fee of 1% for every year that remains on the term loan facility with a maximum fee of 6%. Final execution of the term loan and our receipt of the related proceeds is expected to occur by March 19, 2004.

Contractual Commitments. Our major outstanding contractual commitments relate to the privately placed bonds and bank loans and equipment lease financings. Our contractual commitments as of December 31, 2003 were as follows:

	Total	Payments Due by period			
		Less Than 1 Year	1-3 Years	3-5 Years	More than 5 Years
		(In thousands)			
Long-term debt	\$48,740	\$ 4,893	\$10,779	\$33,068	\$0
Capital lease obligations, including interest	8,580	5,988	2,506	86	0
Operating leases	2,709	1,484	1,213	12	0
	<u>\$60,029</u>	<u>\$12,365</u>	<u>\$14,498</u>	<u>\$33,166</u>	<u>\$0</u>

Under the terms of certain technology licensing agreements, we are obligated to make payments upon the achievement of established milestones leading to the discovery of defined products. These payments could total \$6.0 million and the year incurred cannot be determined at the current time.

Recent Accounting Pronouncements. In January 2003, the FASB issued FASB Interpretation No. 46 (FIN 46), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first reporting period beginning after December 15, 2003. We adopted this standard on July 1, 2003 and its adoption did not have an impact on our financial position or results of operations.

In April 2003, the Financial Accounting Standards Board (FASB) released Statement of Financial Accounting Standards (SFAS) No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 clarifies under what circumstances a contract with an initial net investment meets the characteristics of a derivative, amends the definition of an underlying contract, and clarifies when a derivative contains a financing component in order to increase the comparability of accounting practices under SFAS No. 133. The statement is effective for contracts entered into or modified after June 30, 2003, and for hedging relationships designated after June 30, 2003. We adopted this standard on July 1, 2003 and its adoption did not have any impact on our financial position or results of operations.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." This Statement establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). Many of those instruments were previously classified as equity. The Statement is effective for financial instruments entered into or modified after May 31, 2003. We adopted this standard on June 1, 2003 and its adoption did not have any impact on our financial position or results of operations.

In August 2003, the EITF reached a consensus on Issue 03-05, "Applicability of AICPA Statement of Position 97-2 to Non-Software Deliverables in an Arrangement Containing More-Than-Incidental Software." EITF 03-05 addresses the applicability of SOP 97-2 to non-software deliverables in an arrangement containing more-than-incidental software. In an arrangement that includes software that is more than incidental to the products or services as a whole, software and software-related elements are included within the scope of SOP 97-2. Software-related elements include software products and

services, as well as any non-software deliverables for which software deliverable is essential to its functionality. We adopted EITF 03-05 and its adoption did not have any 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 and bank deposits are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate. As of December 31, 2003, all of our cash and cash equivalents were in money market, bank deposit 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 general risks through the use of derivative financial instruments.

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 cross currency 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*

None.

Item 9A. *Controls and Procedures*

a) *Evaluation of disclosure controls and procedures.* Our Chief Executive Officer and our Chief Financial Officer evaluated the effectiveness of deCODE's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the fiscal year covered by this Annual Report on Form 10-K. Based upon that evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that as of the end of such fiscal year deCODE's current disclosure controls and procedures are adequate and effective to ensure that information required to be disclosed in the reports deCODE files under the Exchange Act is recorded, processed, summarized and reported on a timely basis.

b) *Changes in internal control over financial reporting.* There was no change in deCODE's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the last quarter of the year ended December 31, 2003 that has materially affected, or is reasonably likely to materially affect, deCODE's internal control over financial reporting.

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 are to serve for staggered three-year terms. Class I consists of Sir John Vane and Göran A. Ando, whose terms will expire at the Annual Meeting of Stockholders in 2005. Class II consists of Jean-Francois Formela and J. Neal Armstrong, whose terms will expire at the Annual Meeting of Stockholders in 2006. Class III consists of Kari Stefansson and Terrance McGuire, whose terms will expire at the Annual Meeting of Stockholders in 2004. The directors hold office until the expiration of their respective terms and until their respective successors are elected and qualify, or until death, resignation or removal.

The name and age of each of our current directors, as well as 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.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>	<u>Director Since</u>
Kari Stefansson(1)	54	Director, Chairman of the Board, Chief Executive Officer and President	1996
Terrance G. McGuire(1)(2)(3)	47	Director and Vice-Chairman	1996
Jean-Francois Formela(2)(3)	47	Director	1996
Sir John Vane	76	Director	1997
J. Neal Armstrong(2)(4)	65	Director	2003
Göran A. Ando	54	Director	2004

(1) Member of Nominating Committee

(2) Member of Audit Committee

(3) Member of Compensation Committee

(4) Chair of the Audit Committee. The Board of Directors has determined that Mr. Armstrong is an audit committee financial expert. Mr. Armstrong is "independent" as that term is used in applicable regulations of the Securities and Exchange Commission.

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 two board committees: the Compensation Committee and the Nominating Committee and as a member of our Audit 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 Acusphere, Inc. and several 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 Partner 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 Exelixis, Inc., Nuvelo, 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.

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 Wellcome 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.

J. Neal Armstrong has served as a director since October 2003. Mr Armstrong has served as Vice President, Chief Financial Officer, Secretary and Treasurer of Aspect Medical Systems, Inc., a developer and manufacturer of an anesthesia monitoring system since 1996. From 1990 to 1996, Mr. Armstrong served as Vice President of Finance, Chief Financial Officer and as a director of Haemonetics, Inc., a manufacturer of blood processing systems. From 1985 to 1990, he was the Vice President of Finance and Administration, Treasurer and Chief Financial Officer at BTU International, a manufacturer of thermal processing systems. Prior to 1985, he served for 14 years in senior operating and financial positions at Texas Instruments, Inc., an electronics company.

Göran A. Ando, M.D. has served as a director since February 2004. Dr. Ando is Group Chief Executive of Celltech Group, which he joined in April 2003. Prior to joining Celltech, he served as Executive Vice President and President, Research and Development for Pharmacia Corporation from March 2000 until its acquisition by Pfizer Inc. in April 2003. While with Pharmacia & Upjohn, Inc., Dr. Ando served as Executive Vice President and President, Research & Development from November 1997 to March 2000, Executive Vice President, Science & Technology from 1995 to 1997, and Executive Vice President and Deputy CEO in 1995.

Executive Officers Who Are Not Directors

The name, age and position of each person who is currently serving as an executive officer (but not also as 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.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Hannes Smarason	36	Executive Vice President and Senior Business Officer
Lance Thibault	37	Chief Financial Officer and Treasurer
Jeffrey Gulcher	44	Chief Scientific Officer
Mark Gurney	49	Senior Vice President, Drug Discovery
Hakon Hakonarson	43	Vice President, Clinical Sciences
Michael Young	52	Senior Vice President, Business Development

Hannes Smarason has served as our Executive Vice President and Senior Business Officer (formerly 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.

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. Mr. Thibault received a B.S. in Accountancy from Bentley College in 1988 and is a CPA.

Jeffrey Gulcher, M.D., Ph.D. has served as our Chief Scientific Officer since October 2003, prior to that he had served as 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. has served as our Senior Vice President, Drug Discovery since October 2003. He joined deCODE in August 2000 and was elected our Vice President, Pharmaceutical Discovery in October 2000 and our Vice President, Drug Development in August 2002. 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.

Hakon Hakonarson has served as our Vice President, Clinical Sciences since October 2003. Prior to that he also served as our Director of Respiratory, Inflammatory and Pharmacogenomics Research as well as Chief Scientific Officer of Encode. Dr. Hakonarson received his M.D., Ph.D. from the University of Iceland, School of Medicine. He completed his pediatric residency training at the University of Connecticut in 1992 and subspecialty training in pulmonary medicine at the Children's Hospital of Philadelphia, University of Pennsylvania School of Medicine in 1995. Dr. Hakonarson was an Assistant Professor of Pediatrics at the Children's Hospital and the University of Pennsylvania from 1995 until his relocation to Iceland in 1998, at which time he became Director of Respiratory Research at deCODE.

Michael W. Young was elected to serve as our Senior Vice President, Business Development since October 2003, prior to that he had served as our Vice President, Business Development since 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 biopharma 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.

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 except that Hakon Hakonarson and J. Neal Armstrong inadvertently filed their Forms 3 late.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all of our directors, officers and employees, including our principal executive officer, principal financial officer and principal accounting officer or controller. The Code of Business Conduct and Ethics can be found on our website at www.decode.com.

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, 2003, 2002 and 2001 of those persons who served as (i) our chief executive officer during 2003 and (ii) our other four most highly compensated executive officers who were serving as such as of December 31, 2003 (the "Named Executive Officers"):

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation Stock Option Awards (Number of Shares)	All Other Compensation
		Salary(1)	Bonus		
Kari Stefansson	2003	\$ 503,373	—	600,000	\$ 44,116(2)
Chairman, President and Chief	2002	443,585	—	—	67,677(2)
Executive Officer	2001	372,597	\$ 130,000(3)	—	45,062(2)
Hannes Smarason	2003	\$ 286,678	—	400,000	—
Executive Vice President and	2002	252,673	—	—	—
Senior Business Officer	2001	204,696	\$ 71,000(3)	—	—
Jeffrey Gulcher	2003	\$ 236,256	—	100,000	—
Chief Scientific Officer	2002	238,110	\$ 50,000	—	\$ 11,436(2)
	2001	203,096	69,445(4)	—	12,215(2)
Mark Gurney	2003	\$ 212,423	—	120,000	—
Senior Vice President, Drug	2002	251,707	—	—	\$ 9,030(2)
Discovery	2001	148,714	\$ 65,000(4)	—	10,498(2)
Michael Young(5)	2003	\$ 235,000	—	—	—
Senior Vice President, Business	2002	235,000	—	—	—
Development	2001	137,083	\$ 48,500(4)	100,000	—

- (1) Includes, except with respect to Mr. Young (all years presented), Jeffrey Gulcher and Mark Gurney (2003 only), compensation paid in Icelandic kronas. Figures reflect exchange rates of 71.16, 80.77 and, 103.20 Icelandic kronas to \$1.00, the exchange rates determined by the Central Bank of Iceland on December 31, 2003, 2002 and 2001, respectively.
- (2) Includes the value of housing and an automobile provided by us for the benefit of the Named Executive Officer.
- (3) Represents bonus paid to individual in December 2002 for services rendered in 2001.
- (4) Represents bonus paid to individual in March 2002 for services rendered in 2001.
- (5) Mr. Young was elected in June 2001.

Option Grants in Last Fiscal Year

The following table sets forth certain information concerning grants of stock options to the Named Executive Officers during the fiscal year ended December 31, 2003.

Option Grants in Last Fiscal Year

Name	Number of Securities Underlying Options Granted	Percentage of Total Options Granted to Employees in Fiscal 2003	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	600,000	23.51%	\$8.96	11/17/13	\$3,380,938	\$8,567,959
Hannes Smarason	260,000	10.19%	5.63	11/17/13	1,527,499	4,826,073
	140,000	5.49%	7.06	11/17/13	621,599	1,575,255
Jeffrey Gulcher	100,000	3.92%	8.96	11/17/13	563,490	1,427,993
Mark Gurney	120,000	4.70%	8.96	11/17/13	676,188	1,713,592

- (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, 2003		Value of Unexercised in-the-Money Options at December 31, 2003 (1)	
			Exercisable/	Unexercisable	Exercisable/Unexercisable	
Kari Stefansson	—	—	312,501	287,499	\$ 0	\$ 0
Hannes Smarason	—	—	263,890	136,110	671,296	153,804
Jeffrey Gulcher	—	—	4,167	86,160	0	0
Mark Gurney	—	—	105,000	123,840	0	0
Michael Young	—	—	67,603	32,397	52,054	24,946

- (1) Based on the closing price on The Nasdaq Stock Market at December 31, 2003 of \$8.19.

Compensation Arrangements

Director Compensation

Except as set forth below, our directors do not receive cash compensation for services on our Board of Directors or any board committee. We do, however, reimburse all directors for their expenses incurred in connection with attendance at Board of Directors and committee meetings.

We have entered into an agreement with Vane Associates (of which Sir John Vane is a partner) pursuant to which Vane Associates will receive (i) \$12,000 for each year Sir John serves as a director, and (ii) \$3,000 for each board meeting that Sir John attends and for each other day on which Sir John provides services to deCODE. In addition, we granted Sir John an option to purchase 60,000 shares of our common stock. The option vests in equal annual installments over three years commencing August 30, 2003 and has an exercise price of \$2.15. We reimbursed Vane Associates for its legal expenses incurred to review, negotiate and amend its agreement with us.

We have entered into an agreement with Mr. Armstrong pursuant to which he will receive (i) \$12,000 for each year he serves as a director, and (ii) \$3,000 for each board and board committee

meeting that he attends and for each other day on which he provides services to deCODE. In addition, we granted Mr. Armstrong an option to purchase up 60,000 shares of our common stock. The option vests in equal annual installments over three years commencing on October 3, 2004 and has an exercise price of \$5.35.

In November 2003 the board adopted a policy for compensating directors who are not also employees. Pursuant to this policy, (1) we pay each director an annual retainer of \$12,000 (or a pro rated portion of such amount in case of a partial term) and \$3,000 per day for each board or committee meeting that he or she attends whether personally or by telephone participation and for each other day on which he or she provides services to deCODE at deCODE's request and (2) we grant each director a non-qualified stock option under our 2002 Equity Incentive Plan to purchase 60,000 shares (or a pro rated portion of such amount in case of a partial term) of our common stock at a price equal to the closing price of the stock as reported on the Nasdaq National Market on the day prior to such director's election or appointment to the Board, with such option to vest in periodic installments over the course of the director's term.

At the time of adoption of this policy, we granted a non-statutory stock option to purchase 60,000 shares of the our common stock to Jean-Francois Formela at an exercise price of \$8.17. The option vests as to 20,000 shares on each of the first, second and third anniversaries of the date of our 2003 Annual Meeting of Stockholders (or, the date of our 2006 Annual Meeting of Stockholders, if earlier than such third anniversary), provided that Mr. Formela is then serving as a director. We also granted a non-statutory stock option to purchase 80,000 shares of our common stock to Terrance G. McGuire at an exercise price of \$8.17. The option vests as to 20,000 shares on each of the first, second, third and fourth anniversaries of the date of our 2003 Annual Meeting of Stockholders (or the date of our 2007 Annual Meeting of Stockholders, if earlier than such fourth anniversary), provided that Mr. McGuire is then serving as a director. At the time of Dr. Ando's appointment to the Board, we granted him a non-qualified option to purchase 26,667 shares of our common stock at an exercise price of \$12.33 per share, with such option to vest as to 6,667 shares at our 2004 Annual Meeting of Stockholders and as to 20,000 shares at our 2005 Annual Meeting of Stockholders, provided that Dr. Ando is then serving as a director.

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 a certain period 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 \$1,744,808 were made for the year ended December 31, 2003.

Effective December 1, 2001, deCODE adopted a 401(k) plan (the "deCODE 401(k) Plan") available to eligible full-time employees in the United States. Additionally, deCODE's wholly owned subsidiary, MediChem Life Sciences, Inc., sponsors a contribution savings and investment 401(k) plan (the "MediChem 401(k) Plan and collectively with the deCODE 401(k) Plan, the "401(k) Plans") in which employees meeting minimum service requirements are eligible to participate. Pursuant to the 401(k) Plans, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit (\$13,000 in 2004) and have the amount of such reduction contributed to the 401(k) Plan. Each of the 401(k) Plans requires that we make additional matching contributions on behalf of participants at a rate of 50% of employee contributions up to a maximum of 6% of their base salary. Contributions by employees to the 401(k) Plans and income earned on such contributions are not taxable to employees until withdrawn from the 401(k) Plans. deCODE made contributions of \$32,854 in the year ended December 31, 2003 to the deCODE 401(k) Plan. In 2003 deCODE contributed \$155,146 to the MediChem 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 2003. 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 2003, 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 whose executive officers served as a director of deCODE or a 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 February 16, 2004, 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.

<u>Name And Address of Beneficial Owner</u>	<u>Amount and Nature of Beneficial Ownership(1)</u>	<u>Percent of Outstanding Common Stock(2)</u>
SAPAC Corporation Ltd(3) 124 Grenzacherstrasse CH-4070 Basel	4,483,334	8.3%
Kari Stefansson(4) c/o deCODE genetics, Inc. Sturlugata 8 Reykjavik, Iceland	3,356,542	6.2%
T. Rowe Price Associates, Inc.(5) 100 E. Pratt Street Baltimore, MD	3,301,703	6.1%
Hannes Smarason(6)	599,352	1.1%
Jeffrey Gulcher(7)	381,617	*
Mark Gurney(8)	121,875	*
Michael Young(9)	74,803	*
Göran A. Ando	0	*
Jean-Francois Formela	0	*
Terrance G. McGuire(10)	96,554	*
J. Neal Armstrong	0	*
Sir John Vane(11)	80,000	*
All directors and executive officers as a group (12 persons)(12) .	4,848,896	8.9%

* 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 53,809,619 shares of common stock outstanding on February 16, 2004.
- (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) Includes 331,250 shares of common stock issuable upon exercise of options held by Dr. Stefansson.

- (5) As set forth in Schedule 13G, dated February 13, 2004, filed by T. Rowe Price Associates, Inc. These securities are owned by various individuals and institutional investors, which T. Rowe Price Associates, Inc. (Price Associates) serves as investment adviser with power to direct investments and/or sole power to vote the securities. For purposes of the reporting requirements of the Securities and Exchange Act of 1934, Price Associates is deemed to be a beneficial owner of such securities; however Price Associates expressly disclaims that it is, in fact, the beneficial owner of such securities.
- (6) Includes (a) 300,000 shares of common stock of Fjarfestingarfelagid Primus ehf, of which Mr. Smarason is the sole shareholder, and (b) 279,448 shares of common stock issuable upon exercise of options held by Mr. Smarason.
- (7) Includes 10,417 shares of common stock issuable upon exercise of options held by Dr. Gulcher.
- (8) Represents shares of common stock issuable upon exercise of options held by Mr. Gurney.
- (9) Represents shares of common stock issuable upon exercise of options held by Mr. Young.
- (10) Represents shares of common stock held by Terrance McGuire TTEE, Terrance McGuire Trust—1999.
- (11) Includes 50,000 shares of common stock issuable upon exercise of options held by Sir John Vane.
- (12) Includes an aggregate of 3,853,809 shares of common stock and 995,087 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 February 16, 2004 (of which 10,859 shares of common stock and 127,294 shares of common stock underlying options are held by executive officers who are not named executive officers).

Equity Compensation Plan Information

The following table sets forth information concerning the number of outstanding options, the weighted average exercise price of those securities and the number of securities remaining to be granted under existing equity plans, whether approved or not approved by security holders, as of December 31, 2003. The purpose of this table is to illustrate the potential dilution that could occur from past and future equity grants.

<u>Plan Category</u>	<u>Number of Securities To Be Issued Upon Exercise of Outstanding Options, Warrants And Rights</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants And Rights</u>	<u>Number of Securities Remaining Available For Future Issuance Under Existing Equity Compensation Plans</u>
Equity compensation plans approved by security holders	4,108,331	\$7.88	1,540,813
Equity compensation plans not approved by security holders	N/A	N/A	N/A
Total	<u>4,108,331</u>	<u>\$7.88</u>	<u>1,540,813</u>

Item 13. Certain Relationships and Related Transactions

On November 1, 2003, principal and accrued interest in the amount of \$1,846,338 under a promissory note from Hannes Smarason, our Executive Vice President and Senior Business Officer, which was delivered to the Company in 1999 in connection with the officer's early exercise of a stock option for 260,000 shares of common stock and was secured by a pledge of such shares, became due.

On November 3, 2003, and in accordance with the terms of the note, the Company applied 240,096 shares of the pledged stock (valued at \$1,846,000 based on the opening price on the Nasdaq Stock Market on November 3, 2003) to payment of principal and interest due on the note.

On December 31, 2003, Hannes Smarason, our Executive Vice President and Senior Business Officer, paid in full outstanding principal and interest in the amount of \$70,798 under a note he delivered to us in 1998 in connection with his early exercise of a stock option.

In January, 2004 Mr. Smarason acquired an ownership interest in Icelandair, the only regularly-scheduled commercial airline serving Iceland. Since January 1, 2004 we have incurred charges to Icelandair of approximately \$183,434 for business travel by our officers and employees. We believe that the rates charged us by Icelandair are no less favorable than those it charges other customers.

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. Pursuant to an agreement between us and Prokaria, we are entitled to receive royalties on any revenues Prokaria may receive from a patent application we transferred to Prokaria. In addition, we agreed to provide certain sequencing and advisory services to Prokaria. During the fiscal year ended December 31, 2003, we recognized \$7,406 in revenue with respect to such services.

Item 14. Principal Accountant Fees and Services

Audit fees

The following table summarizes the fees billed or billable by PricewaterhouseCoopers for services rendered for the fiscal years ended December 31, 2002 and December 31, 2003:

<u>Type of Fees</u>	<u>Fiscal Year Ended December 31,</u>	
	<u>2002</u>	<u>2003</u>
Audit Fees	\$ 973,206	\$663,005
Audit-Related Fees	456,995	86,840
Tax Fees	264,545	123,535
All Other Fees	0	0
Total Fees	<u>\$1,694,746</u>	<u>\$873,380</u>

The caption "audit fees" are fees we paid PricewaterhouseCoopers for professional services for the audit of our financial statements included in our Form 10-K's and review of financial statements included our Form 10-Q's. "Audit-related fees" are fees billed by PricewaterhouseCoopers for grant audits, statutory audits, mergers and acquisitions and consultations."Tax fees" are fees for tax compliance, tax advice and tax planning.

Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services by Independent Accountants

The Audit Committee pre-approves all audit and legally permissible non-audit services provided by the independent accountants. The Audit Committee is preparing a policy for the pre-approval of services provided by the independent accountants.

The Audit Committee approved all services performed by the independent auditor during 2002 and 2003.

PART IV

Item 15. 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:

	PAGE
Reports of Independent Auditors	F-2, F-3
Consolidated Statements of Operations	F-4
Consolidated Balance Sheets	F-5
Consolidated Statements of Changes in Stockholders' Equity	F-6
Consolidated Statements of Cash Flows	F-8
Notes to Consolidated Financial Statements	F-9

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
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).
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation dated August 30, 2002 (Incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q filed on November 14, 2002).
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).
4.4	Warrant Certificate, dated May 6, 2002 issued to Islandsbanki-FBA hf. (Incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
4.5	Form of Indexed Bond (Tier A) (Incorporated by reference to Exhibit 4.2 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
4.6	Form of Indexed Bond (Tier C) (Incorporated by reference to Exhibit 4.3 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
4.7	Warrant, dated February 25, 2004, issued to Merck & Co., Inc.

<u>Exhibit Number</u>	<u>Description</u>
10.1	Form of License from The Icelandic Data Protection Commission (now, The Icelandic Data Protection Authority) to Islensk erfðagreining 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).
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 on April 15, 2003).
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 Fridrik Skulason (FS) and Islensk erfðagreining 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 August 30, 2002 (Incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K filed on April 15, 2003).
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).
10.9	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).
10.10	Co-operation Agreement between Reykjavik Hospital and Islensk erfðagreining 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).
10.11	Co-operation Agreement between the Iceland State Hospital and Islensk erfðagreining 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).
10.12*	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).
10.13*	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).
10.14*	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).

<u>Exhibit Number</u>	<u>Description</u>
10.15*	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).
10.16+	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).
10.17	Contract on Financial Leasing between Lysing hf, and Islensk erfdagreining ehf., dated as of December 13, 2001. (Incorporated by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.18	Land Lease Agreement between the City of Reykjavik and Islensk erfdagreining ehf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.19	Agreement on the Details of the Arrangement of Encumbrances in the Site Agreement between the University of Iceland and Islensk erfdagreining ehf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.20	Annex to the Agreement on the Details of the Arrangement of Encumbrances in the Site Agreement between the University of Iceland and Islensk erfdagreining ehf., dated as of January 4, 2002. (Incorporated by reference to Exhibit 10.39 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.21#	Loan Agreement between Sturlugata 8 ehf. (now named Vetrargardurinn ehf.) and Islandsbanki-FBA hf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.40 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.22	Currency Exchange Agreement between Sturlugata 8 ehf. (now named Vetrargardurinn ehf.) and Islandsbanki-FBA hf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.42 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.23	General Bond with Consumer Price Index between Islandsbanki-FBA, hf. and Sturlugata 8 ehf., (now named Vetrargardurinn ehf.) dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.44 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.24	General Bond with Consumer Price Index between Islandsbanki-FBA hf. and Sturlugata 8 ehf., (now named Vetrargardurinn ehf.) dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.45 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.25#	Research Collaboration and Cross-License Agreement among F.Hoffman-La Roche Ltd and Hoffman-La Roche Inc. and deCODE genetics, ehf. (Islensk erfdagreining), effective as of February 1, 2002. (Incorporated by reference to Exhibit 10.46 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.26	Currency Exchange Agreement between Vetrargardurinn ehf. and Islandsbanki-FBA hf., dated as of March 13, 2002 (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
10.27	General Bond with Consumer Price Index between Islandsbanki-FBA hf. and Vetrargardurinn ehf., dated as of February 8, 2002 (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
10.28+	Loan Agreement between Islandsbanki-FBA hf. and Vetrargardurinn ehf., dated as of March 13, 2002 (Incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).

<u>Exhibit Number</u>	<u>Description</u>
10.29+	Research Collaboration and License Agreement, dated September 26, 2002, between deCODE genetics, Inc., deCODE genetics, ehf., and Merck & Co., Inc. (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on November 14, 2002).
10.30	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).
10.31*	2002 Equity Incentive Plan (Incorporated by reference to Exhibit 10.40 to the Company's Annual Report on Form 10-K filed on April 15, 2003).
10.32#	License Agreement, dated as of October 17, 2003, between deCODE genetics, ehf. and Bayer AG
10.33#	License and Research Collaboration Agreement, dated February 25, 2004, between deCODE genetics, ehf and Merck & Co., Inc.
10.34*#	Employment Agreement between Islensk erf dagreining ehf. and Hakon Hakonarson dated as of July 23, 2003 (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on November 13, 2003).
10.35*	Agreement between deCODE genetics, Inc. and J. Neal Armstrong dated as of August 18, 2003 and effective as of October 3, 2003 Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on November 13, 2003).
10.36	Stock and Warrant Purchase Agreement dated February 25, 2004, between deCODE genetics, Inc., and Merck & Co., Inc.
21.1	Subsidiaries of deCODE genetics, Inc.
23.1	Consent of PricewaterhouseCoopers LLP, independent accountants.
23.2	Consent of PricewaterhouseCoopers hf, independent accountants.
31.1	Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

+ 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.

Note: Unless otherwise noted, the SEC File number of each of the above referenced documents is 000-30469.

(b) Reports on Form 8-K

On November 4, 2003, deCODE filed a Current Report on Form 8-K reporting the issuance of a press release containing financial information regarding its results of operations and financial condition for the quarter ended September 30, 2003.

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/ KARI STEFANSSON,

Kari Stefansson, Chairman, President and
Chief Executive Officer

Dated: March 15, 2004

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

<u>/s/ KARI STEFANSSON</u> Kari Stefansson	Chairman, President, Chief Executive Officer and Director (principal executive officer)	March 15, 2004
<u>/s/ LANCE THIBAUT</u> Lance Thibault	Chief Financial Officer and Treasurer (principal financial officer and principal accounting officer)	March 15, 2004
<u>/s/ GÖRAN A. ANDO</u> Göran A. Ando	Director	March 15, 2004
<u>/s/ J. NEAL ARMSTRONG</u> J. Neal Armstrong	Director	March 15, 2004
<u>/s/ TERRANCE MCGUIRE</u> Terrance McGuire	Director	March 15, 2004
<u>/s/ SIR JOHN VANE</u> Sir John Vane	Director	March 15, 2004

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deCODE genetics, Inc.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT AUDITORS

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 and cash flows present fairly, in all material respects, the financial position of deCODE genetics, Inc. and its subsidiaries at December 31, 2003 and 2002, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company'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 auditing standards generally accepted in the United States of America, 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 our opinion.

As discussed in the footnote to the consolidated financial statements titled "Revenue", effective January 1, 2002 the Company changed its method of recognizing milestone revenue.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts
February 27, 2004, except for the
fifth paragraph of the
footnote titled "Debt" for which
the date is March 15, 2004

REPORT OF INDEPENDENT AUDITORS

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

In our opinion, the accompanying statements of operations, changes in stockholders' equity and cash flows present fairly, in all material respects, the results of deCODE genetics, Inc. and subsidiaries operations and their cash flow for the year ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit of these statements in accordance with auditing standards generally accepted in the United States of America, 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 audit provides a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers ehf

Reykjavik, Iceland

March 18, 2002 except for the footnote to the 2001 financial statements titled "Restatement of Consolidated Financial Statements" (not shown herein) for which the date is April 2, 2003

deCODE genetics, Inc.
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended December 31,		
	2003	2002	2001
	(In thousands, except share and per share amounts)		
Revenue	\$ 46,811	\$ 41,065	\$ 26,099
Operating expenses			
Research and development, including cost of revenue	63,466	89,612	70,954
Selling, general and administrative	17,178	18,685	12,402
Impairment, employee termination benefits and other charges	951	64,790	0
Total operating expenses	81,595	173,087	83,356
Operating loss	(34,784)	(132,022)	(57,257)
Interest income	1,151	2,954	6,925
Interest expense	(3,478)	(3,079)	(440)
Other non-operating income and (expense), net	1,988	(72)	(1,675)
Net loss before cumulative effect of change in accounting principle	(35,123)	(132,219)	(52,447)
Cumulative effect of change in milestone revenue recognition method	0	333	0
Net loss	<u>\$ (35,123)</u>	<u>\$ (131,886)</u>	<u>\$ (52,447)</u>
Basic and diluted net loss per share:			
Net loss before cumulative effect of change in accounting principle	\$ (0.68)	\$ (2.69)	\$ (1.26)
Cumulative effect of change in milestone revenue recognition method	0.00	0.01	0.00
Net loss	(0.68)	(2.68)	(1.26)
Shares used in computing basic and diluted net loss per share	51,507,869	49,098,254	41,634,009
Pro forma amounts assuming new milestone revenue recognition method is applied retroactively:			
Revenue			\$ 23,182
Net loss			(55,364)
Basic and diluted net loss per share			(1.33)

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

deCODE genetics, Inc.
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2003	2002
	(In thousands, except share amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 68,669	\$ 87,244
Receivables	6,498	5,293
Other current assets	5,894	9,609
Total current assets	81,061	102,146
Restricted cash	6,000	6,000
Property and equipment, net	71,590	83,499
Goodwill	8,863	8,863
Other long-term assets and deferred charges	15,961	12,909
Total assets	<u>\$183,475</u>	<u>\$213,417</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 5,353	\$ 4,865
Accrued expenses and other current liabilities	7,189	10,613
Short-term borrowings	6,500	0
Current portion of capital lease obligations	5,741	4,311
Current portion of long-term debt	4,893	4,243
Deferred research revenue	10,518	7,606
Total current liabilities	40,194	31,638
Capital lease obligations, net of current portion	2,520	5,008
Long-term debt, net of current portion	43,847	44,961
Deferred research revenue	3,500	6,557
Other long-term liabilities	7	7
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: 100,000,000 shares; Issued and outstanding: 54,003,970 and 53,735,230 respectively, at December 31, 2003; and 53,695,869 and 53,545,234, respectively, at December 31, 2002	54	54
Additional paid-in capital	430,489	431,494
Notes receivable	(4,240)	(7,607)
Deferred compensation	(572)	(2,642)
Accumulated deficit	(330,210)	(295,087)
Accumulated other comprehensive income (loss)	3	(1)
Treasury stock, 268,740 and 150,635 shares stated at cost at December 31, 2003 and 2002, respectively	(2,117)	(965)
Total stockholders' equity	93,407	125,246
Total liabilities and stockholders' equity	<u>\$183,475</u>	<u>\$213,417</u>

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

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Shares		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
	Common Stock	Par Value								
	(In thousands, except share amounts)									
Balance at December 31, 2000	45,041,969	\$ 45	\$350,399	\$(11,851)	\$(11,569)	\$0	\$(110,754)	\$ (1)	\$ 0	\$216,269
Issuance of common stock upon exercise of warrants	94,444	0	(0)							0
Other issuances of common stock	191,814	0	1,555							1,555
Forfeiture of unvested common stock issued upon early exercise of stock options	(70,841)			410	750				(1,162)	(2)
Payment of notes				653						653
Deferred compensation arising from stock options			6		(6)					0
Amortization of deferred compensation					4,651					4,651
Comprehensive income (loss):										
Net loss for the period							(52,447)			(52,447)
Other comprehensive income (loss):										
Foreign currency translation								54		54
Total comprehensive income (loss):										(52,393)
Balance at December 31, 2001	45,257,386	45	351,960	(10,788)	(6,174)	0	(163,201)	53	(1,162)	170,733
Issuance of common stock on acquisition of MediChem	8,362,893	9	78,955						3,332	82,296
Issuance of common stock upon exercise of warrants	141,665	0	(0)							0
Issuance of common stock upon exercise of stock options	38,813	0	48							48
Other issuances of common stock	20,508	0	131							131
Issuance of warrants in connection with financing			696							696
Forfeitures and cancellations of common stock issued upon early exercise of stock options	(276,031)			2,947	188				(3,135)	0
Forfeiture of options			(296)		296					0
Payment of notes				234						234
Amortization of deferred compensation					3,048					3,048
Comprehensive income (loss):										
Net loss for the period							(131,886)			(131,886)
Other comprehensive income (loss):										
Foreign currency translation								(54)		(54)
Total comprehensive income (loss):										(131,940)
Balance at December 31, 2002	53,545,234	\$ 54	\$431,494	\$ (7,607)	\$ (2,642)	\$0	\$(295,087)	\$ (1)	\$ (965)	\$125,246

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

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (Continued)

	Shares		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
	Common Stock	Par Value								
	(In thousands, except share amounts)									
Balance at December 31, 2002	53,545,234	\$54	\$431,494	\$(7,607)	\$(2,642)	\$0	\$(295,087)	\$ (1)	\$ (965)	\$125,246
Issuance of common stock upon exercise of warrants . .	425,785		(1,799)						1,799	0
Issuance of common stock upon exercise of stock options	135,801		306	(2)						304
Deferred compensation arising from stock options.			373		(373)					0
Other issuances of common stock	25,504		158							158
Forfeiture and cancellations of common stock issued upon early exercise of stock options	(397,094)			2,833	118				(2,951)	0
Forfeiture of options			(43)		43					0
Payment of notes				536						536
Amortization of deferred compensation					2,282					2,282
Comprehensive income (loss):										
Net loss for the period							(35,123)			(35,123)
Other comprehensive income (loss):										
Foreign currency translation . .								4		4
Total comprehensive income (loss):										(35,119)
Balance at December 31, 2003	53,735,230	\$54	\$430,489	\$(4,240)	\$(572)	\$0	\$(330,210)	\$ 3	\$(2,117)	\$ 93,407

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,		
	2003	2002	2001
	(In thousands)		
Cash flows from operating activities:			
Net loss	\$(35,123)	\$(131,886)	\$(52,447)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	13,913	13,753	10,028
Purchased in-process research and development	0	480	0
Equity in net loss of affiliate	0	563	462
Gain on sale of investment in common stock of eMR	(254)	0	0
Amortization of deferred stock compensation	2,282	3,048	4,651
Other stock-based compensation and stock contributions	158	0	53
Loss on disposal of equipment, net	224	475	787
Impairment of property, equipment and intangibles	0	7,474	0
Impairment of goodwill	0	53,400	0
Charges for write-down of obsolete and excess materials and supplies	802	3,352	2,961
Litigation settlement	0	0	1,293
Unrealized (gain) loss on derivative financial instruments	(1,764)	(1,116)	223
Other	464	524	25
Changes in operating assets and liabilities net of effect of acquisitions:			
Receivables	(1,205)	9,402	(4,259)
Other current assets	3,206	137	(2,672)
Accounts payable	488	(6,944)	6,308
Accrued expenses	(3,377)	(3,314)	5,049
Deferred research revenue	(145)	(2,962)	6,892
Other	0	453	(824)
Net cash used in operating activities	<u>(20,331)</u>	<u>(53,161)</u>	<u>(21,470)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property and equipment	(882)	(15,637)	(47,681)
Acquisitions and investments, net	0	(571)	0
Proceeds from sale of property and equipment	90	2,853	0
Other	0	0	(10)
Net cash used in investing activities	<u>(792)</u>	<u>(13,355)</u>	<u>(47,691)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Issuance of common stock	256	48	0
Repayment of notes receivable for common stock	536	234	653
Forfeiture of common stock	0	0	(2)
Changes in restricted cash	0	8,000	(14,000)
Proceeds from short-term borrowings	6,500	0	0
Proceeds from equipment sale-leaseback financing	4,750	459	12,000
Proceeds from facility financings	154	12,895	31,200
Repayment of mortgage	0	(11,880)	0
Repayments of debt and capital lease obligations	(9,648)	(9,057)	(1,774)
Net cash provided by financing activities	<u>2,548</u>	<u>699</u>	<u>28,077</u>
Net decrease in cash and cash equivalents	<u>(18,575)</u>	<u>(65,817)</u>	<u>(41,084)</u>
Cash and cash equivalents at beginning of period	87,244	153,061	194,145
Cash and cash equivalents at end of period	<u>\$ 68,669</u>	<u>\$ 87,244</u>	<u>\$153,061</u>
Supplemental cash flow information:			
Cash paid for interest	\$ 2,479	\$ 3,397	\$ 388
Supplemental schedule of non-cash transactions:			
Common stock issued for acquisitions and investments	0	82,296	210

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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(tabular amounts in thousands, except share and per share amounts)

The Company

References in this report to deCODE and “we” and “us” refer to deCODE genetics, Inc., a Delaware company, and deCODE genetics, Inc.’s wholly owned subsidiary, Islensk erfðagreining ehf., an Icelandic company registered in Reykjavik, and its subsidiaries Encode ehf., deCODE Cancer ehf. and Vetrargardurinn ehf. as well as deCODE genetics, Inc.’s wholly owned subsidiary, MediChem Life Sciences, Inc., a Delaware corporation, and its subsidiaries MediChem Research, Inc., ThermoGen, Inc., Emerald BioStructures, Inc., Advanced X-Ray Analytical Services, Inc. and MediChem Management, Inc.

With its headquarters in Reykjavik, Iceland, deCODE is a population genetics company developing drugs and DNA-based diagnostics based upon its discoveries in the inherited causes of common diseases. deCODE’s population approach and resources have enabled it to isolate gene and targets directly involved in the development of many of the biggest challenges to public health. deCODE is focused on turning these findings into a pipeline of products which it believes will be able to combat the cause of disease, not just the signs and symptoms. deCODE’s customers include major pharmaceutical companies, biotechnology firms, pharmacogenomics companies, universities and other research institutions. deCODE’s business is global, with its principal markets in the United States and in Europe.

In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange accounted for as a purchase transaction. The acquisition gives deCODE capabilities in chemistry and structural proteomics that can 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 both through its own programs and in alliances with collaborators. Founded in 1987, MediChem (now our pharmaceuticals and biostructures groups) provides contract chemistry research services specializing in chemical synthesis for new drug discovery and development.

deCODE’s primary focus is on the discovery and commercialization of novel therapeutics based on genetic information identified in our population-based gene discovery work. Through the acquisition in March 2002 of MediChem Life Sciences and its subsidiary, Emerald Biostructures, now its pharmaceuticals and biostructures groups, deCODE has integrated capabilities for applying genetic findings to the development of drugs, both through its own programs and in alliance with corporate partners. deCODE is also applying the links it has identified between genetic factors and disease to create DNA based tests which can also be used to identify patients with increased risk of developing a disease or to predict which patients will respond well to a given drug therapy. deCODE believes that such tests will become a standard part of healthcare within the coming decade, making it possible to gauge individual predisposition to a particular illness and to design effective preventive strategies; to complement traditional clinical diagnoses; and to identify patients who are likely to respond or not respond to particular drugs.

In addition to conducting work on our targets in our collaborative and internal programs, our pharmaceuticals group provides drug discovery work for our fee-for-service customers. Our other service offerings include protein crystallization products and protein structure analysis contract services through our Seattle-based biostructures group; pharmacogenomics and clinical trials services through our wholly-owned subsidiary Encode; and DNA analysis services through our genotyping laboratory in Reykjavik.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Basis of Presentation

These financial statements are reported in United States dollars, deCODE's functional currency, and prepared in accordance with accounting principles generally accepted in the United States of America. Tabular amounts are stated in thousands, except share and per share amounts.

Reclassifications

To be consistent with year-end 2003 operating expense classifications, deCODE has reclassified previously reported operating expenses for the year-ended December 31, 2002. These reclassifications between research and development and selling, general and administrative expenses totalled \$3.0 million, and had no effect on reported amounts of total operating expenses or operating loss. In addition, certain reclassifications have been made to the December 31, 2002 balance sheet to be consistent with the December 31, 2003 balance sheet.

Principles of Consolidation

The consolidated financial statements include the accounts and operations of deCODE genetics, Inc. and its wholly owned subsidiaries, Islensk erfdagreining ehf. and its subsidiaries, and MediChem Life Sciences, Inc. and its subsidiaries. No dividends have been paid. All significant intercompany accounts and transactions are eliminated upon consolidation.

Use of estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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. 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 valuation, 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. 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 and many of deCODE's materials and supplies, protection of proprietary technology, ability to obtain additional financing, ability to negotiate collaborative arrangements, and compliance with governmental and other regulations.

Concentration of Risk

deCODE has no significant off-balance sheet concentrations 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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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. Cross-currency swaps entered into as economic hedges against foreign exchange rate fluctuations on deCODE's Icelandic krona denominated debt and included in other long-term assets are recorded at their estimated 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

Materials and supplies, included in our other current assets, are valued at the lower of cost (first-in, first-out method) or market. deCODE evaluates materials and supplies levels and expected usage on a periodic basis and records write-downs of value for obsolescence as required.

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 annually and 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.

Long-lived assets located in the United States and Iceland were \$32,553,000 and \$69,861,000, respectively at December 31, 2003 and \$36,089,000 and \$75,182,000, respectively, at December 31, 2002.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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 as interest expense over the term of the debt. Deferred financing costs are included in other current and long-term assets and total \$1,232,000 and \$1,016,000 at December 31, 2003 and 2002, respectively.

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 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 during 2003, 2002 or 2001.

Revenue

deCODE records revenue provided that there is persuasive evidence that an arrangement exists, the price is fixed and determinable and collectibility is reasonably assured. deCODE has entered into research, development and commercialization alliances and collaborations with major pharmaceutical and biotechnology companies. The key components of the commercial terms of such alliance arrangements typically include one or more of the following: research funding; up-front, exclusivity, technology access, and technology development fees; milestone payments; license or commercialization fees; and royalties or profit sharing from the commercialization of products.

deCODE's revenues from research and development collaboration agreements are recorded and recognized in accordance with the applicable performance requirements and terms of the respective contracts, generally either (i) as contract research costs are incurred, usually ratably over the period of effort, (ii) according to the level of efforts expended based on the ratio of contract research costs incurred to expected total costs, or (iii) upon the achievement of substantive milestones. deCODE's

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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accounting recognition policies with respect to each significant element of our revenue is summarized as follows:

Research funding and other service fees. Research funding is recognized as earned, typically ratably over the period of effort. Funding payments are not refundable in the event that the related efforts are not successful. Other service revenues from negotiated rate contracts are recognized based upon the terms of the underlying contract generally either (i) on a per diem basis as services are rendered; (ii) on the basis efforts expended, generally upon the ratio of costs incurred to total expected costs of providing the service; or (iii) upon completion of the service rendered. Any losses on contracts are provided for when they are determinable. Included in revenue are billings to customers for the cost of materials purchased by deCODE.

Milestone payments. Prior to January 1, 2002, we recorded all milestone payments received when acknowledgement of having achieved applicable performance requirements was received from the collaborator and recognized milestone payments as revenue on a retrospective basis over the contractual term of the underlying agreement. deCODE believes the substantive milestone method to be a preferable method in recognizing revenue for milestone payments made under particular contracts in that it more closely relates to the underlying activity that results in the revenue-generating milestone event under such contracts. Effective January 1, 2002, deCODE changed its method of recognizing milestone revenue to the substantive milestone method for contracts where (i) the milestone event is substantive, (ii) there is substantial effort involved in achieving the milestone, (iii) the milestone payment amount is commensurate with the magnitude of the related achievement, and (iv) the associated follow-on revenue streams bear a reasonable relationship to one another. Under the substantive milestone method deCODE records revenue when the milestone has been achieved and payment is due and payable under the terms of the respective agreement and deCODE recognizes revenue when acknowledgement of having achieved applicable performance requirements is received from the collaborator. As before, milestone payments without the above characteristics are recognized on a retrospective basis over the contractual term of the underlying agreement.

The cumulative effect of the change in accounting principle on prior years results of \$(333,000) is included in income in the year ended December 31, 2002. Had the retrospective basis of milestone revenue recognition been continued for the year ended December 31, 2002, revenue, net loss and basic and diluted net loss per share would have been \$40,873,000, \$(131,861) and \$(2.69), respectively.

Up-front, exclusivity, technology access, and technology development fees. deCODE recognizes revenue from non-refundable fees not specifically tied to a separate earnings process ratably over the expected customer relationship period or estimated period of performance. Changes in estimates could impact revenue in the period the estimate is changed. If deCODE's estimate of the period of performance shortens or lengthens, the amount of revenue we recognize from such non-refundable fees not specifically tied to a separate earnings process could increase or decrease in the period the change in estimate becomes known; future related revenues would be adjusted accordingly.

In November 2002, the Emerging Issues Task Force (EITF) reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" (EITF No. 00-21). EITF No. 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF No. 00-21 were applicable to revenue arrangements entered into fiscal periods beginning after June 15, 2003. deCODE's adoption of EITF No. 00-21 did not impact revenue for 2003; however, this pronouncement may have a significant impact on timing of revenue recorded under future agreements,

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

including the possible deferral of milestone payments received during the research period and recognition over the remaining period of performance.

Significant elements of our revenue are summarized as follows:

	For the Year Ended December 31,		
	2003	2002	2001
	(In thousands)		
Research funding and other service fees	\$35,718	\$36,641	\$18,182
Milestone payments	5,794	1,462	6,917
Up-front, exclusivity, technology access, and technology development fees	4,000	2,500	1,000
Other	1,299	462	0
	<u>\$46,811</u>	<u>\$41,065</u>	<u>\$26,099</u>

In general, prerequisites for billings are established by contractual terms including predetermined payment schedules, the achievement of contract milestones, or submission of appropriate billing detail. Deferred revenue represents amounts billed in accordance with contract terms but not yet recognized according to our accounting policy. Unbilled costs and fees arise when revenue has been recognized but customers have not been billed.

Revenues attributed to the United States and to Iceland were \$13,744,000 and \$33,067,000, respectively, for 2003 and \$14,485,000 and \$26,580,000, respectively, for 2002 and were all attributed to Iceland in 2001.

Two of deCODE's executive officers own an aggregate 37.5% of the share capital and are board members of Prokaria ehf. (Prokaria). deCODE provides Prokaria certain sequencing and advisory services in exchange for fees and recognized \$7,000, \$102,000 and \$322,000 in revenue in respect of such sequencing services provided during 2003, 2002 and 2001, respectfully.

Collaborations

F. Hoffmann-La Roche (Roche).

Therapeutics. In 1998 deCODE entered into a research collaboration and cross-license agreement with Roche, which terminated in 2002, under which deCODE identified key generic factors involved in ten common diseases: osteoarthritis, Alzheimer's disease, schizophrenia, PAOD, stroke, osteoporosis, obesity, anxiety, non-insulin-dependent diabetes and rheumatoid arthritis. In January 2002, deCODE entered into a new three-year agreement with Roche focused on turning the achievements of the 1998 gene discovery collaboration into novel therapeutics. The 2002 agreement provided that deCODE would collaborate with respect to four diseases that had been the subject of the 1998 agreement. deCODE is currently collaborating on two of these diseases. Under the 2002 agreement deCODE has received \$16,000,000 in research funding and may receive an additional \$4,000,000 in research funding during the remainder of the term of the agreement. The agreement provides that upon the development of specified compounds during the term of the agreement and for a specified period thereafter deCODE may receive milestone payments, the amount of which will depend on the type of compound developed. In addition, deCODE will be entitled to receive royalties on the sales of drugs that are developed.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Diagnostics. In June 2002, deCODE signed a five-year alliance with Roche's diagnostics division to develop and market DNA-based diagnostics for major diseases. More recently deCODE has added research programs aimed at developing diagnostics to predict drug response for major therapeutics used to treat those diseases, in order to help select the most effective treatment of those available. Under the agreement we have received \$28,625,000 in research funding, up-front fees and milestone payments. deCODE may receive \$15,625,000 in additional research funding over the remainder of the term of the agreement as well as milestone payments upon the achievement of research and development milestones and royalties on the sales of diagnostic products developed.

Revenues from these alliances with Roche amounted \$19.9 million, \$16.9 million, and \$25.2 million for the years ended December 31, 2003, 2002 and 2001, respectively, representing 43%, 41% and 97% of consolidated revenue for the years ended December 31, 2003, 2002 and 2001, respectively.

Merck & Co, Inc. (Merck).

Obesity. In September 2002, deCODE entered into an alliance with Merck aimed at developing new treatments for obesity. Under the alliance, deCODE is combining our research efforts in the genetics of obesity to identify, validate and prioritize a series of drug targets to take into development. Under the terms of the three-year agreement, which can be extended on a year-to-year basis upon the consent of the parties, deCODE has received research funding, technology access fees and milestone payments in the aggregate amount of \$13,750,000 and may receive research funding and technology access in the future of \$10,750,000. In addition, deCODE may receive further research milestone payments and may receive milestone payments as compounds developed under the alliance advance in the development process and royalties on successfully marketed drugs. Merck may terminate the agreement at any time upon 90 days' notice or after September 26, 2004 upon 30 days' notice in the event that the research program fails to achieve certain specified goals.

Information Rich Clinical Trials. In February 2004, deCODE entered into an agreement with Merck under which deCODE will conduct information-rich clinical trials on a range of Merck's developmental compounds. The term of the alliance is seven years, subject to termination by Merck after five years. deCODE will, at any given point over the course of the alliance, be conducting concurrent trials on as many as five Merck compounds. Under the terms of the agreement, deCODE will receive royalties on sales of drugs and diagnostics developed as part of the alliance. deCODE will receive a one-time technology access fee, will share research funding for the clinical development of compounds and pharmacogenomic analysis, and will receive milestone payments as compounds or pharmacogenomic tests reach the market. In addition, Merck has purchased 689,703 shares of deCODE's common stock at a price of \$14.50 per share, and has received a warrant to purchase up to 1,724,257 of additional shares of our common stock at \$29.00 per share over the next five years.

Revenues from the therapeutics and other alliances with Merck amounted to \$9.2 million, and \$1.6 million and \$0 for the years ended December 31, 2003, 2002 and 2001, respectively, representing 19%, 4% and 0% of consolidated revenue for the years ended December 31, 2003, 2002 and 2001, respectively.

Applied Biosystems Group (ABG). In the fourth quarter of 2002, deCODE terminated and entered into a related settlement agreement regarding two agreements with ABG that had been in place since July 2001. deCODE's accounting policy for the Joint Development and Commercialization Agreement with ABG to develop genotypic analysis, products provided for revenue related to ABG's payment obligation and deCODE's development costs associated with the Agreement to be deferred

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

until the development efforts were completed or the Agreement is terminated, if earlier, as was the case. As a result, deferred revenue of \$6.3 million (15% of consolidated revenue for the year ended December 31, 2002) was recognized in the fourth quarter of 2002 when the parties reached agreement as to termination.

Research and Development Expenses, Including Costs of Revenue

In accordance with SFAS No. 2, "Accounting for Research and Development Costs," research and development costs are charged to expense when incurred. deCODE's research and development expenses consist of the costs of its own internal programs and costs associated with research and development conducted in collaboration with and for others. Major components of deCODE's research and development expenses include personnel costs, namely salaries, benefits and stock-based compensation; materials and supplies; services contracted for research activities; other third-party fees and costs; depreciation of property and equipment; amortization of patents and other intangible assets; and items of overhead, including allocations of various administrative and facilities related costs.

	For the Year Ended December 31,		
	2003	2002	2001
	(In thousands)		
Salaries and other personnel costs	\$28,102	\$33,946	\$22,512
Materials and supplies	10,103	20,632	17,713
Contractor services and other third party costs	4,829	10,069	8,109
Overhead expenses	5,727	9,092	7,945
Depreciation and amortization	13,377	13,869	11,361
Stock-based compensation and remuneration	1,328	2,004	3,314
	<u>\$63,466</u>	<u>\$89,612</u>	<u>\$70,954</u>

In November 2003, deCODE acquired an exclusive worldwide license from Bayer HealthCare AG (Bayer) to develop and commercialize a small molecule compound that is active against a key target, located within an inflammatory pathway, made by a gene isolated at deCODE that predisposes to myocardial infarction, or heart attack. A portion of deCODE's payment to Bayer for this license was paid in the fourth quarter of 2003 and the remainder is included in accounts payable at December 31, 2003 and will be paid in the second quarter of 2004 following completion of certain diligence matters. Since there was no alternative use of the technology, these payments were recorded as research and development expense during the fourth quarter 2003. Further, deCODE is obligated to make development milestone payments to Bayer as the compound advances towards market approval and will make royalty payments to Bayer based upon sales of the compound as a marketed drug.

Patent Costs

Patent application costs are charged to legal expense as incurred and classified in selling, general and administrative expense.

Stock-Based Compensation and Remuneration

deCODE follows 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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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.

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, as amended by SFAS No. 148, "Accounting for Stock-Based Compensation—Transition and Disclosure—an amendment of FASB Statement No. 123" (SFAS 148), 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,		
	2003	2002	2001
	(In thousands, except per share amounts)		
Net loss attributable to common stockholders—as reported	\$(35,123)	\$(131,886)	\$(52,447)
Add: Stock-based employee compensation expense included in reported net loss	2,440	3,048	4,598
Deduct: Total stock-based employee compensation expense determined under fair value method for all awards	(6,964)	(7,415)	(6,577)
Net loss attributable to common stockholders—proforma	<u>\$(39,647)</u>	<u>\$(136,253)</u>	<u>\$(54,426)</u>
Basic and diluted net loss per share as reported—			
as reported	\$ (0.68)	\$ (2.68)	\$ (1.26)
Basic and diluted net loss per share—proforma . . .	(0.77)	(2.77)	(1.31)

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.

Foreign Currency Translation

deCODE's functional currency is the U.S. dollar. Islensk erfdagreining also consolidates its subsidiaries, one of which uses 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. For certain consolidated entities the books and records are not maintained in its functional currency. For these entities, translation gains and losses recorded upon remeasurement are included in the statement of operations.

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 classified as other non-operating income and expense. Net transaction and translation losses were \$29,000, \$731,000 and \$1,264,000 in 2003, 2002 and 2001, respectively.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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.

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 was \$35,123,000, \$131,886,000 and \$52,447,000 in 2003, 2002 and 2001, respectively.

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 Years Ended December 31,		
	2003	2002	2001
	(Shares)	(Shares)	(Shares)
Warrants to purchase shares of common stock . . .	1,400,467	1,851,300	1,067,500
Options to purchase shares of common stock . . .	4,108,331	2,270,507	1,918,333
Restricted shares with an associated outstanding non-recourse promissory note	1,235,975	2,467,196	3,060,289
	<u>6,744,773</u>	<u>6,589,003</u>	<u>6,046,122</u>

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.

Recent Accounting Pronouncements

In January 2003, the Financial Accounting Standards Board (FASB) issued FASB Interpretation No. 46 (FIN 46), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest

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entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first reporting period beginning after December 15, 2003. deCODE adopted this standard on July 1, 2003 and its adoption did not have an impact on deCODE's financial position or results of operations.

In April 2003, the FASB released SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 clarifies under what circumstances a contract with an initial net investment meets the characteristics of a derivative, amends the definition of an underlying contract, and clarifies when a derivative contains a financing component in order to increase the comparability of accounting practices under SFAS No. 133. The statement is effective for contracts entered into or modified after June 30, 2003, and for hedging relationships designated after June 30, 2003. deCODE adopted this standard on July 1, 2003 and its adoption did not have any impact on deCODE's financial position or results of operations.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." This Statement establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). Many of those instruments were previously classified as equity. The Statement is effective for financial instruments entered into or modified after May 31, 2003. deCODE adopted this standard on June 1, 2003 and its adoption did not have any impact on deCODE's financial position or results of operations.

In August 2003, the EITF reached a consensus on Issue 03-05, "Applicability of AICPA Statement of Position 97-2 to Non-Software Deliverables in an Arrangement Containing More-Than-Incidental Software." EITF 03-05 addresses the applicability of SOP 97-2 to non-software deliverables in an arrangement containing more-than-incidental software. In an arrangement that includes software that is more than incidental to the products or services as a whole, software and software-related elements are included within the scope of SOP 97-2. Software-related elements include software products and services, as well as any non-software deliverables for which software deliverable is essential to its functionality. deCODE's adoption of EITF 03-05 did not have any impact on deCODE's financial position or results of operations.

Receivables

Receivables consist of the following:

	December 31,	
	2003	2002
	(In thousands)	
Receivables	\$6,475	\$4,863
Receivables, related party	0	102
Unbilled costs and fees	23	328
Total	<u>\$6,498</u>	<u>\$5,293</u>

Roche accounted for 32% and 43% of consolidated receivables as of December 31, 2003 and 2002, respectively.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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Other Current Assets

Other current assets consist of the following:

	December 31,	
	2003	2002
	(In thousands)	
Materials and supplies	\$2,322	\$4,867
Value added taxes	1,447	1,796
Other current assets	2,125	2,946
Total	<u>\$5,894</u>	<u>\$9,609</u>

eMR hf.

Included in other non-operating income and expense for the year ended December 31, 2003 is a gain recorded on the sale of deCODE's investment in the common stock of eMR of \$254,000. As of December 31, 2003, deCODE does not have any remaining ownership interest in eMR. Equity in net loss of affiliate in the years ended December 31, 2003, 2002 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.

Property and Equipment

Property and equipment consist of the following:

	December 31,	
	2003	2002
	(In thousands)	
Land	\$ 2,303	\$ 2,303
Buildings	50,418	50,479
Laboratory equipment	35,991	41,238
Furniture and fixtures	5,479	5,503
Other equipment	4,703	4,731
	98,894	104,254
Less: accumulated depreciation and amortization	(27,304)	(20,755)
Total	<u>\$ 71,590</u>	<u>\$ 83,499</u>

The total depreciation and amortization expense of property and equipment for the years ended December 31, 2003, 2002 and 2001 was \$12,442,000, \$12,112,000 and \$8,870,000, respectively.

In light of then current conditions and the pace of technological change, effective from April 1, 2001 deCODE changed the estimated useful life of sequencing instruments for purposes of depreciation from 5 years to 4 years. This change in estimate had the effect of increasing depreciation expense and basic and diluted net loss per share by \$1,400,000 and \$0.03 per share, respectively, in the year ended December 31, 2001.

In December 2001, deCODE sold certain laboratory equipment for \$12,000,000 of cash proceeds and leased the equipment back from the counter-party (an Icelandic leasing company) for a three-year

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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 must maintain an amount equal to 75% of the remaining lease payments on deposit with an Icelandic bank as a compensating balance totaling \$5,173,000 at December 31, 2003.

In June 2003, deCODE sold certain laboratory equipment for \$4,750,000 net cash proceeds and leased the equipment back from the counter-party (an Icelandic leasing company) for an 18-month 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 the gain (\$1,418,000) has been deferred and is being amortized over the remaining useful life of the leased equipment (3 years).

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 \$18,961,000 and \$8,459,000, respectively, as of December 31, 2003 and \$12,415,000 and \$4,934,000, respectively, as of December 31, 2002. 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 0.2-3.0% of the original lease amount at lease end.

Acquisitions

MediChem Life Sciences, Inc.

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 8,362,893 shares of deCODE common stock. In addition, options to purchase shares of MediChem common stock that vested immediately upon consummation of the merger have been assumed by deCODE, resulting in the issuance of 577,917 options to purchase deCODE common stock. In accordance with the terms of the merger agreement, in July 2002 deCODE also granted a further 136,352 deCODE stock options to certain employees of MediChem under the 1996 Equity Incentive Plan.

The total consideration for the acquisition was \$85,845,000. deCODE allocated the total cost of the acquisition to the net assets of MediChem as follows:

	(In thousands)
Net tangible assets acquired	\$16,962
In-process research and development	480
Identifiable intangible assets	6,140
Goodwill	62,263
	<u>\$85,845</u>

Net tangible assets acquired include net working capital of \$2,259,000, property and equipment of \$28,908,000 and debt of \$14,014,000.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

The in-process research and development has been charged to operations as a research and development expense in the year-ended December 31, 2002. Goodwill will not be amortized but is subject to annual impairment testing. Goodwill is also not tax-deductible. deCODE's statements of operations include the results of MediChem from March 18, 2002, the date of acquisition. The following unaudited pro forma financial information presents the consolidated results of deCODE as if the acquisition of MediChem occurred at the beginning of 2002. Nonrecurring charges, such as the acquired in-process research and development charge is not reflected in the following pro forma. This pro forma information is not intended to be indicative of future operating results.

	For the Year Ended December 31, 2002
	(In thousands, except per share amounts)
Total revenues	\$ 45,153
Net loss	(136,318)
Basic and diluted net loss per share	(2.68)

Impairment, Employee Termination Benefits and Other Charges

In September 2002, deCODE implemented a cost reduction program aimed at achieving positive operating cashflow from existing operations by the end of 2003. In this regard, deCODE reduced total worldwide headcount, focusing in particular on utilizing ongoing process automation and increased productivity in the core genetics operations in Reykjavik. Stemming from this initiative and together with deCODE's consideration of significant and pervasive declines in the market environment for pharmaceutical and biotech industries, deCODE determined that impairment tests of the carrying value of our goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem acquisition, should be performed. We have recorded the following impairment, employee termination benefits and other charges in the year-ended December 31, 2002:

	(In thousands)
Employee termination benefits	\$ 2,158
Impairment of goodwill	53,400
Impairment of property and intangible asset	2,715
Write-down of assets held for sale	2,706
Write-down of equipment	2,053
Obsolete and excess materials and supplies write-down	1,758
	<u>\$64,790</u>

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

During the year ended December 31, 2003, deCODE recorded \$951,000 of additional employee terminations benefits. The following is a schedule of charges, payments and unpaid termination benefits for the years ended December 31, 2003 and 2002:

	For the Year Ended December 31,	
	2003	2002
	(In thousands)	
Balance at beginning of period	\$ 874	\$ 0
Additions to accrual	951	2,158
Payments of benefits	(1,759)	(1,284)
Balance at December 31	<u>\$ 66</u>	<u>\$ 874</u>

The charges related to termination benefits are for 61 and 132 employees during 2003 and 2002, respectively. Benefits as of December 31, 2003 are expected to be settled in cash over the first half of 2004.

For purposes of the goodwill impairment tests, deCODE identified its reporting units, identified the assets and liabilities of the reporting units and performed impairment tests on the net goodwill associated with them. Goodwill that resulted from the acquisition of MediChem was assigned to the reporting units based upon expectations of synergies to be gained from the integration of the pharmaceutical and biostructures groups with deCODE. Goodwill impairment is deemed to exist if the net book value of a reporting unit exceeds its estimated fair value. To identify potential impairment, deCODE, based upon independent valuations, compares fair value of a reporting unit with its carrying amount, including goodwill. For this purpose, deCODE estimates fair value of a reporting unit using analyses of comparable companies and recent comparable transactions. In measuring the amount of impairment loss, deCODE, based upon independent valuations, compares the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill, estimating the fair value of an impaired reporting unit using discounted cash flow methodologies. The goodwill impairment charge is associated solely with goodwill resulting from the acquisition of MediChem and results largely from significant and pervasive declines in the market environment for the pharmaceutical and biotech industries impacting, among other things, market valuations of companies operating in those industries. The remaining goodwill is allocated to our drug discovery reporting unit.

In September 2002, deCODE committed to a plan to sell its Woodridge Discovery Center and an agent was engaged and initiated an active marketing program to locate a buyer/investor in a sale and leaseback transaction. Efforts to enter into a sale and leaseback transaction or other form of re-financing continue but have yet to be consummated. Taking into account the estimated selling price of the building, deCODE recorded an impairment charge in the year-ended December 31, 2002 amounting to \$2,065,000. In addition, certain intangible assets amounting to \$650,000 were determined to be impaired utilizing a discounted cashflow methodology to estimate fair value.

In September 2002, deCODE committed to a plan to sell its former headquarters facility that had been vacated in connection with the move to its new headquarters facility in Reykjavik's University district earlier in the year. In October 2002, an agent for the sale was engaged and an active marketing program to locate a buyer was initiated. In November 2002, terms of sale were agreed and executed with a buyer in the amount of \$2,853,000. Taking into account the selling price of the building less costs

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

to sell, deCODE wrote-down the property in September 2002 and recorded a loss amounting to \$2,706,000.

In September 2002, deCODE wrote-down the value of certain laboratory equipment no longer in use, amounting to \$2,053,000.

Ongoing process automation and increased productivity in the core genetics operations in Reykjavik and changes in some of deCODE's target research programs have affected deCODE's planned volume and timing of usage of its materials and supplies. In this connection, management recorded an additional provision for excess and obsolete material and supplies during September 2002.

Goodwill and Other Intangibles

The changes in the carrying amount of goodwill for the year ended December 31, 2003 and 2002 are as follows:

	For the Year Ended December 31,	
	2003	2002
	(In thousands)	
Balance at beginning of period	\$8,863	\$ 0
Goodwill acquired during year	0	62,263
Impairment losses	0	(53,400)
Balance at December 31	<u>\$8,863</u>	<u>\$ 8,863</u>

All of the Company's goodwill resulted from the acquisition of MediChem (see acquisition note above). The goodwill is tested for impairment annually on September 30 of each year and whenever changes in the circumstances indicate goodwill could be impaired.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Other intangible assets included in other long-term assets and deferred charges on the consolidated balance sheets of December 31, 2003 and 2002 consist of the following:

For the Year Ended December 31, 2003			
	Gross	Accumulated Amortization (In thousands)	Net
Developed technology, 5 year life	\$4,560	\$1,634	\$2,926
Patents, 5-7 year life	380	86	294
Royalty-free licenses, 10 year life	230	41	189
Standard operating procedures, 5 year life . . .	320	115	205
Total	<u>\$5,490</u>	<u>\$1,876</u>	<u>\$3,614</u>

For the Year Ended December 31, 2002			
	Gross	Accumulated Amortization (In thousands)	Net
Developed technology, 5 year life	\$4,560	\$ 722	\$3,838
Patents, 5-7 year life	380	38	342
Royalty-free licenses, 10 year life	230	18	212
Standard operating procedures, 5 year life . . .	320	51	269
Total	<u>\$5,490</u>	<u>\$ 829</u>	<u>\$4,661</u>

Aggregate amortization expense was \$1,047,000 and \$829,000 for the years ended December 31, 2003 and 2002, respectively. These amounts were included in research and development expenses for all periods presented. Estimated amortization expense for the five succeeding years as of December 31, 2003 is as follows:

2004	\$1,047
2005	1,047
2006	1,047
2007	274
2008	71
Thereafter	128
	<u>\$3,614</u>

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

	December 31,	
	2003	2002
	(In thousands)	
Salaries and other employee benefits	\$3,885	\$ 4,257
Other current liabilities	3,304	3,756
Database license fee	0	2,600
Total	<u>\$7,189</u>	<u>\$10,613</u>

On January 22, 2000, the Icelandic Ministry of Health and Social Security (the "Ministry"), granted deCODE an operating license (the "License") to create, operate and commercialize the Icelandic Health Sector Database (the "IHD"), or the License. As required by the License, and concurrently with its issuance, deCODE entered into an agreement (the "Agreement") with the Ministry whereby deCODE would be obligated to pay the Icelandic government a fixed annual fee of 70 million Icelandic kronas per year (approximately \$983,000 as of December 2003) and an additional annual fee of 6% of its net profit, up to a maximum of 70 million Icelandic krona per year as a consideration for the rights granted to deCODE under the License. Through June 2003, \$3,221,000 in respect of these annual fees had been provided for and included in other accrued expenses. Under the terms of the Agreement, certain events needed to take place in order for the fixed annual fee to become due, including the consummation of certain data transfer agreements with the two largest Icelandic hospitals, which have subsequently merged to form the National University Hospital ("NUH"). No such agreement with the NUH has been consummated, and the IHD has not been commercialized primarily because the Icelandic Data Protection Authority has not issued the required security certification. In light of the development of our business since the Agreement was entered into, the lack of the required agreement with the NUH and the fact that the Icelandic Data Protection Authority has not issued the required security certification, we do not expect to operate the IHD under the terms of the Agreement. As such, management's estimation after consultation with legal counsel is that it is no longer probable that the accrued fixed annual fee will become due, and accordingly, a reversal of \$3,221,000 of the accrued fees has reduced recorded research and development expenses for the year ended December 31, 2003.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Short-Term Borrowings

Short-term borrowings as of December 31, 2003 consists of a \$6,500,000 loan with an Icelandic financial institution that is due in three tranches of \$2,000,000, \$2,000,000 and \$2,500,000 on January 20, 2004, January 30, 2004 and February 17, 2004, respectively, at an interest rate of three month LIBOR (2.09%, 2.06% and 2.06%, respectively). On January 20, January 30 and February 17, 2004 the \$2,000,000, \$2,000,000 and \$2,500,000 loans, respectively, were extended until March 22, April 30 and May 17, 2004 at an interest rate of 2.05%, 2.01% and 1.90%, respectively.

Debt

In December 2001, deCODE established a \$27,500,000 bridge loan with an Icelandic financial institution to finance the construction of its new headquarters facility. The borrowings under the bridge loan were repaid in January and March 2002 with the proceeds from deCODE's Tier A \$13,500,000 bond offering, Tier C \$7,300,000 offering of privately placed bonds and Tier D \$6,600,000 bank loan. In December 2001, deCODE also entered into a \$4,000,000 bank loan (Tier B) for the construction of its new headquarters facility. The Tier B bank loan is denominated in U.S. dollars and the principal amount is payable quarterly beginning in March 2002. The Tier B bank loan bears annual interest of three-month LIBOR plus 3.0% (4.17% at December 31, 2003) 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 are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The principal amount is payable annually beginning December 2002. The Tier A bonds bear annual interest of 8.5% that is payable annually in December 2002. The Tier C bonds are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The principal amount is payable in March 2007. The Tier C bonds bear annual interest of 12.0%. The principal amount is payable in March 2007. The Tier D bank loan bears annual interest of three-month LIBOR plus 6.0% (7.17% at December 31, 2003) that is payable quarterly. 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.

The Tier A bonds, Tier B bank loan, Tier C bonds and Tier D bank loan are collateralized by deCODE's headquarters facility.

In connection with the Tier A and Tier C bonds deCODE entered into two cross-currency swaps as economic hedges against foreign exchange rate fluctuations that may occur on the Tier A and Tier C bonds. These outstanding contracts bear annual interest of three-month LIBOR plus 2.85% and twelve-month LIBOR plus 6%, respectively. (See "Derivative Financial Instruments")

On March 1, 2004, deCODE prepaid the Tier C bonds (\$10,946,000) as a first step in an integrated refinancing of the Tier C bonds and the Tier D bank loan with an Icelandic financial institution (the "Lender"). On March 12, 2004, deCODE entered a \$17,500,000 term loan with the Lender to refinance the Tier C bonds and the Tier D bank loan. The term loan bears interest at the three-month LIBOR plus 3% (4.11% as of March 12, 2004) until March 1, 2009, at which point, the Lender may adjust the interest margin unilaterally on the interest date March 1, 2009. The term loan is payable in twenty quarterly payments starting on March 1, 2009 and the final payment is due on December 1, 2013. The term loan can be repaid on every anniversary of the loan starting on March 1, 2006, but for which deCODE will pay a prepayment fee of 1% for every year that remains on the term

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

loan facility with a maximum fee of 6%. Final execution of the term loan and receipt by deCODE of the related proceeds is expected to occur by March 19, 2004.

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. A portion of the proceeds from the Tier C bonds and the Tier D bank loan has been allocated to the warrant (\$696,000) and recorded to additional paid-in capital. The resulting discount on the Tier C bonds and the Tier D bank loan is being amortized to interest expense through March 2007.

In April 2002, deCODE repaid the existing loan that had been assumed in the acquisition of MediChem (\$11,880,000). In June 2002, deCODE executed a mortgage for \$11,800,000 with a financial institution for its Woodridge, IL discovery center. The debt carries an interest rate of three-month LIBOR + 1.75% (3.16% at December 31, 2003), payable in monthly installments of \$49,000 for five years and a final payment of \$8,800,000 due in 2007. The mortgage is collateralized by restricted cash totaling \$6,000,000.

In November 2002, deCODE established a \$2,200,000 mortgage loan with an Icelandic financial institution. The bank loan is denominated in U.S. dollars and bears interest at a rate of 6 month LIBOR plus 1.95% (3.17% at December 31, 2003) that is payable in semi-annual installments of \$73,000 beginning June 2003 with a final payment of \$1,835,000 due in 2005.

On April 5, 2001, MediChem Life Sciences, Inc., entered into a Master Security Agreement with General Electric Capital Corporation (G.E. Capital). This credit facility provides for revolving credit loans in the aggregate amount of \$4,000,000. During 2002, deCODE entered into two promissory notes associated with this credit facility. These notes were for \$266,000 and \$193,000 and bear interest at fixed rates of 8.57% and 8.52%, respectively. During 2003, deCODE entered into two promissory notes associated with this credit facility. These notes were for \$53,000 and \$81,000 and bear interest a fixed rate of 8.58%. The terms of the notes are four years and are payable in equal monthly payments based on a 48-month amortization plus interest. The notes are collateralized by the equipment purchased.

In the ordinary course of business, deCODE is contingently liable for performance under a standby letters of credit totaling \$147,000 as of December 31, 2003.

Debt consists of the following:

	December 31,	
	2003	2002
	(In thousands)	
Mortgage bonds; fixed interest of 8.5%—12.0%	\$25,406	\$24,316
Mortgage loans; interest at LIBOR plus 1.75%—6.0%	19,948	23,186
Equipment notes; fixed interest of 8.52%—9.57%	3,386	1,702
Total	<u>\$48,740</u>	<u>\$49,204</u>

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

As of December 31, 2003 principal payments on long-term debt are as follows:

2004	\$ 4,893
2005	6,450
2006	4,329
2007	30,527
2008	2,541
2009 and thereafter	0
	<u>\$48,740</u>

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, 2003, deCODE had entered into two cross-currency swaps for purposes of managing certain of these risks.

deCODE seeks to maintain a desired level of floating-rate debt with respect to its overall debt portfolio denominated in U.S. 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 denominated in Icelandic krona. These interest rate and cross-currency swaps with a combined notional amount of 1,730 million Icelandic krona are designated as economic hedges of fixed rate foreign currency debt (Tier A and Tier C bonds), but do not qualify for hedge accounting under SFAS 133. The estimated fair value of these instruments is \$11,185,000 as of December 31, 2003 and \$6,361,000 as of December 31, 2002 and is included in other long-term assets and deferred charges on the consolidated balance sheet. The resulting unrealized gain for the year-ended December 31, 2003 and December 31, 2002 of \$1,764,000 and \$1,116,000, respectively are included in other non-operating income and (expense), net in the Consolidated Statements of Operations.

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 estimated for each derivative using common market valuation methods with reference to available market data as of the balance sheet date.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Lease and Other Commitments

deCODE leases certain property, laboratory equipment and other assets under obligations that expire at varying dates through 2008. At December 31, 2003, future minimum lease payments under all non-cancelable leases with remaining terms in excess of one-year are as follows:

	Operating	Capital
	(In thousands)	
2004	\$1,484	\$ 5,988
2005	911	1,688
2006	302	818
2007	12	48
2008	0	38
2009	0	0
Total minimum lease payments	<u>\$2,709</u>	<u>8,580</u>
Less amount representing interest		(319)
Present value of future minimum lease payments		8,261
Less: current portion		<u>(5,741)</u>
Long-term portion		<u>\$ 2,520</u>

Rental expense for operating leases was \$1,648,000, \$1,491,000 and \$872,000 in the years ended December 31, 2003, 2002 and 2001, respectively. Included in operating and capital lease commitments are leases on facilities that deCODE has vacated during 2002 as a result of the move to the new headquarters facility. In 2002, management assessed its alternatives in respect of these leased facilities, including subleasing, and recorded a provision amounting to \$903,000 with respect to the remaining commitments. Total remaining minimum lease payments on these facilities are \$692,000 as of December 31, 2003. The remaining provision at December 31, 2003 totaling \$330,000 is net of sub-lease payments deCODE will receive and is classified together with other current liabilities.

Under the terms of certain technology licensing agreements, deCODE is obligated to make payments upon the achievement of established milestones leading to the discovery of defined products. These payments could total \$6.0 million and the year incurred cannot be determined at the current time.

Guarantees

In November 2002, the FASB issued FIN No. 45 "Guarantor's Accounting and Disclosure Requirements for Guarantees, including Indirect Guarantees of Indebtedness of Others—an interpretation of FASB Statements No. 5, 57 and 107 and rescission of FIN 34." deCODE has applied the disclosure provisions of this FIN 45 as of December 31, 2003. The following is a summary of deCODE's agreements that it has determined are within the scope of FIN 45.

When as part of an acquisition deCODE acquires all of the stock or all of the assets and liabilities of a company, it assumes the liability for certain events or occurrences that took place prior to the date of acquisition. The maximum potential amount of future payments it could be required to make for such obligations is undeterminable at this time. deCODE has no liabilities recorded for these liabilities as of December 31, 2003.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

deCODE enters into indemnification provisions under (i) its agreements with other companies in its ordinary course of business, typically with business partners, contractors, clinical sites and customers and (ii) its agreements with investors. Under these provisions deCODE generally indemnifies and hold harmless the indemnified party for losses suffered or incurred by the indemnified party as a result of deCODE's activities or, in some cases, as a result of the indemnified party's activities under the agreement. These indemnification provisions generally survive termination of the underlying agreement. In addition, in some cases, deCODE has agreed to reimburse employees for certain expenses and to provide salary continuation during short term disability. The maximum potential amount of future payments deCODE could be required to make under these indemnification provisions is unlimited. deCODE has not incurred material costs to defend lawsuits or settle claims related to these indemnification agreements. As a result, the estimated fair value of these agreements is minimal. Accordingly, deCODE has no liabilities recorded for these agreements as of December 31, 2003.

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.

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. No royalties have been paid to date under these agreements.

Litigation

Other than claims and legal proceedings that arise from time to time in the ordinary course of its business which are not material, deCODE has no pending legal proceedings except as follows:

On or about April 20, 2002, an amended class action complaint, captioned *In re deCODE genetics, Inc. Initial Public Offering Securities Litigation* (01 Civ. 11219 (SAS)), 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 deCODE's 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.

In the amended pleading, the plaintiff alleges violations of Section 11 of the Securities Act of 1933 and violations of Section 10(b) of the Securities Exchange Act of 1934 (and Rule 10b-5 promulgated thereunder) against deCODE, the Individual Defendants and the Underwriter Defendants. In addition, the amended complaint alleges violations of Section 15 of the Securities Act of 1933, and Section 20(a) of the Securities Exchange Act of 1934 against the Individual Defendants. Generally, the amended complaint alleges that the Underwriter Defendants: (i) solicited and received excessive and undisclosed

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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; (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; and (iii) improperly used their analysts, who purportedly suffered from conflicts of interest, to manipulate the market. The amended 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 amended complaint also alleges that deCODE and the Individual Defendants had numerous interactions and contacts with the Underwriters from which deCODE and the Individual Defendants either knew of, or recklessly disregarded, the Underwriters' purported wrongful acts. The suit seeks unspecified monetary and rescissory damages and certification of a plaintiff class consisting of all persons who purchased shares of our common stock from July 17, 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 Scheindlin. Pursuant to the underwriting agreement executed in connection with our IPO, deCODE has demanded indemnification from the Underwriter Defendants. The Underwriter Defendants have asserted that our request for indemnification is premature.

Pursuant to an agreement the Individual Defendants have been dismissed from the case without prejudice. Along with numerous other issuers, deCODE moved to dismiss the complaint for failure to state a claim. On February 19, 2003, Judge Scheindlin granted our motion with respect to the Section 10(b) claims and denied the motion with respect to the Section 11 claims.

On July 31, 2003, our Board of Directors (other than Dr. Stefansson, who recused himself because he was an Individual Defendant) conditionally approved a proposed partial settlement with the plaintiffs in this matter. The settlement would provide, among other things, a release of deCODE and of the Individual Defendants for the conduct alleged in the amended complaint to be wrongful. deCODE would agree to undertake other responsibilities under the partial settlement, including agreeing to assign away, and not assert or release, certain potential claims we may have against our underwriters. Any direct financial impact of the proposed settlement is expected to be borne by deCODE's insurers. The Board agreed to approve the settlement subject to a number of conditions, including the participation of a substantial number of other issuer defendants in the proposed settlement, the consent of deCODE's insurers to the settlement, and the completion of acceptable final settlement documentation. Furthermore, the settlement is subject to a hearing on fairness and approval by the Court overseeing the litigation.

Due to the inherent uncertainties of litigation and the fact that the settlement is in its early stages, the ultimate outcome of this matter cannot be predicted. If the settlement is not consummated, deCODE expects to contest the allegations against deCODE and deCODE's officers vigorously. If deCODE was required to pay significant monetary damages as a result of such litigation (or any other lawsuits alleging similar claims filed against deCODE and deCODE's officers in the future), deCODE's business could be significantly harmed. Even if such suit concludes in deCODE's favor, deCODE may be required to expend significant funds to defend against the allegations. deCODE is unable to

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

estimate the range of possible loss from the litigation and no amounts have been provided for such matters in deCODE's financial statements.

Preferred Stock

At December 31, 2003, deCODE had 6,716,666 shares of undesignated preferred stock authorized and no shares issued or outstanding. In respect of the 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.

Common Stock

The total authorized shares of common stock, par value \$0.001, of deCODE is 100,000,000 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.

Forfeited unvested founder stock and unvested common stock issued upon early exercise of stock options totaling 70,841 and 26,977 in 2001 and 2000, respectively, were held in treasury and subsequently re-issued during those same years. At December 31, 2003, forfeited unvested shares of common stock issued upon early exercise of stock options totaling 268,740 shares were held in treasury. At December 31, 2003, 0 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. Several of the notes that have become due have been extended a further six years without additional interest. The loan becomes payable upon termination of employment and/or when the shares are sold.

On November 1, 2003, principal and accrued interest in the amount of \$1,846,000 under a promissory note from an executive officer to the Company, which was delivered to the Company in 1999 in connection with the officer's early exercise of a stock option for 260,000 shares of common stock and was secured by a pledge of such shares, became due. On November 3, 2003, and in accordance with the terms of the note, the Company applied 240,096 shares of the pledged stock

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

(valued at \$1,846,000 based on the opening price on the Nasdaq Stock Market on November 3, 2003) to payment of principal and interest due on the note.

On December 31, 2003, principal and accrued interest in the amount of \$71,000 under a promissory note from an executive officer to the Company, was paid in full in connection with the officer's early exercise in 1998 of a stock option for 300,000 shares of common stock.

Warrants

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, 450,833, 150,000 and 100,000 were exercised in the years ended December 31, 2003, 2002 and 2001, respectively. 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.

Warrant activity is summarized as follows:

	For the Years Ended December 31,		
	2003	2002	2001
Outstanding at beginning of year	1,851,300	1,067,500	1,167,500
Issued	0	933,800	0
Exercised	(450,833)	(150,000)	(100,000)
Outstanding at end of year	<u>1,400,467</u>	<u>1,851,300</u>	<u>1,067,500</u>

In May 2002, deCODE issued warrants to purchase 933,800 shares of common stock at an exercise price of \$15.00 per share in conjunction with the issuance of the Tier C bonds and Tier D bank loan. A

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

summary of the outstanding deCODE warrants as of December 31, 2003, of which all are currently exercisable, is as follows:

Common Shares Issuable for	Exercise Price Per Share	Warrant Expiration Date
50,000	\$ 1.00	August 26, 2005
250,000	2.00	February 2, 2007
55,555	3.00	February 5, 2008
55,556	3.00	May 20, 2009
55,556	4.00	February 10, 2010
933,800	15.00	March 1, 2007
<u>1,400,467</u>		

Stock Option Plans

In August 1996, deCODE adopted the deCODE genetics, Inc. 1996 Equity Incentive Plan (the "1996 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. In June 2002, deCODE adopted the deCODE genetics, Inc. 2002 Equity Incentive Plan (the "2002 Plan"). A total of 3,000,000 shares of common stock are reserved for grants under the terms of the 2002 Plan. The 2002 Plan provides for grants of stock options to employees, members of the Board of Directors, and consultants who are not employees. As of December 31, 2003, 1,540,813 shares were available for grant under the 1996 and 2002 Plans.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Option transactions pursuant to the 1996 and 2002 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, 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	(51,667)	12.05	(5,000)	18.00	(56,667)	12.57
Outstanding at December 31, 2001	105,000	7.92	1,437,833	10.11	370,500	9.86	1,913,333	9.95
Granted	0	0.00	869,653	7.80	0	0.00	869,653	7.80
Exercised	0	0.00	(38,813)	1.24	0	0.00	(38,813)	1.24
Cancelled	0	0.00	(395,666)	9.62	(78,000)	7.75	(473,666)	9.31
Outstanding at December 31, 2002	105,000	7.92	1,873,007	9.33	292,500	10.42	2,270,507	9.40
Granted	0	0.00	2,492,150	6.93	260,000	5.63	2,752,150	6.81
Exercised	0	0.00	(77,031)	2.59	(60,000)	1.00	(137,031)	1.89
Cancelled	(5,000)	18.00	(771,295)	9.53	(1,000)	18.00	(777,295)	9.60
Outstanding at December 31, 2003	100,000	\$ 7.42	3,516,831	\$ 7.73	491,500	\$ 9.02	4,108,331	\$ 7.88

In May 2003, deCODE granted options to purchase 633,400 shares of common stock to employees under the 1996 Equity Incentive Plan. In October and November 2003, deCODE granted options to purchase 2,118,000 shares of common stock to employees and directors under the 1996 and 2002 Equity Incentive Plan.

The following table summarizes information about stock options outstanding under the 1996 and 2002 Plan at December 31, 2003:

Exercise Price	Outstanding			Options Exercisable	
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (In Years)	Number of Shares	Weighted Average Exercise Price
\$1.52 to \$2.15	615,440	\$ 2.09	9.02	230,099	\$ 2.04
\$4.16 to \$7.62	829,832	6.11	8.98	477,808	5.99
\$8.00 to \$10.56	2,304,457	8.81	9.09	867,250	8.80
\$13.56 to \$24.56	358,602	15.93	6.69	305,097	16.07
\$1.52 to \$24.56	4,108,331	\$ 7.88	8.85	1,880,254	\$ 8.44

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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

compensation is amortized and recorded as compensation expense ratably over the vesting period of the options. Stock-based compensation expense of \$2,440,000, \$3,048,000 and \$4,598,000 was recognized in the statements of operations during the years ended December 31, 2003, 2002 and 2001 for employee stock options, and stock-based remuneration expense of \$0, \$0 and \$53,000 was recognized in the statements of operations during the years ended December 31, 2003, 2002 and 2001 for non-employee stock options.

Generally 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. Many of the employee loans have been extended upon their due date for up to six years without additional interest. The loans become payable upon termination of employment and/or when the shares are sold.

The weighted-average grant date fair values using the Black-Scholes option pricing model were:

	For the Years Ended December 31,		
	2003	2002	2001
Exercise price greater than grant date stock fair value	\$ —	\$ —	\$7.42
Exercise price equals grant date stock fair value	4.97	5.91	8.23
Exercise price less than grant date stock fair value	5.54	—	—

The fair values of the options granted during 2003, 2002 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 100%, expected terms of 5 years for all periods; and risk-free interest rates of 3.11%, 4.49% and 4.39%, respectively.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

Stock-Based Compensation and Remuneration

Stock-based compensation represents the expense charged in the statements of operations relating to 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,		
	2003	2002	2001
	(In thousands)		
Research and development expense	\$1,328	\$2,004	\$3,314
General and administrative expense	1,112	1,044	1,337
Total	<u>\$2,440</u>	<u>\$3,048</u>	<u>\$4,651</u>

Included in the above were the following transactions:

- \$158,000 that was paid in the form of 25,504 shares of deCODE common stock that were issued in October 2003.
- \$131,000 that was paid in the form of 20,508 shares of deCODE common stock that were issued in March 2002. Compensation related to these shares has been expensed in the year-ended December 31, 2001.
- \$53,000 that was paid in the form of 5,000 shares of deCODE common stock that was given as a charitable contribution in 2001.

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 \$1,745,000, \$1,928,000 and \$1,434,000 for the years ended December 31, 2003, 2002 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 \$33,000, \$31,000 and \$1,000 in the years ended December 31, 2003, 2002 and 2001 to this plan. Additionally, MediChem sponsors a contribution savings and investment 401(k) plan in which employees meeting minimum service requirements are eligible to participate. Participants may contribute up to 15% of their compensation. In 2002 and since the date of acquisition, deCODE contributed an amount equal to 50% of participant contributions on the first 6% of compensation totaling \$198,000. In 2003, deCODE contributed \$155,000 to the MediChem plan.

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 genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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

	December 31,	
	2003	2002
	(In thousands)	
Loss carryforwards	\$ 38,783	\$ 32,050
Capitalized research and development costs	13,124	8,031
Deferred revenue	1,728	2,149
Fixed asset depreciation	(696)	(51)
Intangible assets/patents	(1,433)	(1,427)
Other deferred tax assets	(259)	(159)
Total deferred tax asset, net	51,247	40,593
Valuation allowance	(51,247)	(40,593)
	<u>\$ 0</u>	<u>\$ 0</u>

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

	For the Years Ended December 31,		
	2003	2002	2001
Income taxes at federal statutory rates	(34.0)%	(34.0)%	(34.0)%
State income taxes, net of federal benefit	(1.4)	(0.6)	(0.5)
Non-deductible equity compensation	1.3	0.4	3.5
Non-deductible goodwill amortization	0.0	13.8	2.2
Foreign rate differential	11.1	8.0	3.6
Foreign deferred tax asset adjustment	0.0	0.0	14.7
Foreign inflation adjustment	0.0	0.0	(8.1)
Foreign currency adjustment	(9.2)	(5.1)	17.0
Other	1.9	(0.1)	0.0
Net change in valuation allowance	30.3	17.6	1.6
	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>

Pre-tax U.S. losses were \$10,813,000, \$65,825,000 and \$5,087,000 and pre-tax Icelandic losses were \$24,310,000, \$66,061,000 and \$47,360,000 in 2003, 2002 and 2001, respectively. As of December 31, 2003, deCODE had U.S. federal net operating loss ("NOL") carryforwards of approximately \$31,422,000 that may be available to offset future U.S. federal income tax liabilities and expire at various dates through 2023. As of December 31, 2003, deCODE's Icelandic subsidiaries had NOL carryforwards of approximately \$146,303,000 that begin to expire in 2006. 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.

Approximately \$138,000 of the net operating loss carryforwards relate to the exercise of non-qualified stock options and disqualifying dispositions of incentive stock options, the tax benefit from which, if realized, will be credited to additional paid in capital.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(tabular amounts in thousands, except share and per share amounts)

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 \$7,700,000. 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, 2001 the adjustment to taxable income was a benefit of approximately, \$14,100,000. For the periods beginning on or after January 1, 2002, the Income Tax and Capital Tax Act was amended to remove these provisions.

In the year-ended December 31, 2003 and 2002 there was a foreign currency adjustment caused by strengthening of the Icelandic krona against the U.S. dollar, resulting in an increase in deferred tax assets and liabilities that was offset by an increase in the tax valuation allowance of \$18,000,000 and \$37,400,000, respectively. In the year-ended 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 deferred tax assets and liabilities which was offset by a decrease in the valuation allowance of \$30,100,000.

Selected Quarterly Data (Unaudited)

	For the Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
	(In thousands, except per share amounts)			
FISCAL 2003				
Revenue	\$11,842	\$10,536	\$12,763	\$11,670
Operating loss	12,571	10,276	2,409	9,528
Net loss	13,042	10,232	1,286	10,563
Basic and diluted net loss per share	(0.25)	(0.20)	(0.03)	(0.20)
FISCAL 2002				
Revenue	\$ 5,258	\$ 9,442	\$ 8,982	\$17,383
Operating loss	16,886	19,674	85,417	10,045
Net loss	15,867	19,708	85,439	10,872
Basic and diluted net loss per share	(0.36)	(0.39)	(1.68)	(0.21)

- (1) In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange accounted for as a purchase transaction. Total consideration for the acquisition was \$85,845,000. deCODE Statements of Operations include the results of MediChem from March 18, 2002, the date of acquisition.
- (2) In September 2002, deCODE recorded impairment, employee termination benefits and other charges in the total amount of \$64,790,000.

Corporate Information

Board of Directors

Kári Stefánsson
Chairman
CEO and President
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

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

J. Neal Armstrong
Vice President,
Chief Financial Officer
and Secretary
Aspect Medical Systems

Göran Ando
Group Chief Executive
Celltech Group Plc.

James Beery
Senior Of Counsel
London Office of
Covington & Burling

Company Officers

Kári Stefánsson
President and Chief
Executive Officer

Lance Thibault
Chief Financial Officer
and Treasurer

Jeffrey Gulcher
Chief Scientific Officer

Mark Gurney
Senior Vice President
Drug Discovery

Michael Young
Senior Vice President
Business Development

Hákon Hákonarson
Vice President
Clinical Sciences

Hákon Guðbjartsson
Vice President
Informatics

Corporate Headquarters

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Form 10-K and Annual Reports
Additional copies of the Annual
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Commission, are available at no
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