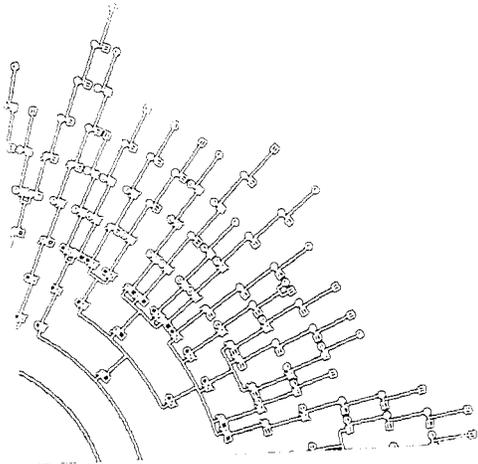


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Annual Report 2004





**deCODE genetics**

deCODE is a biopharmaceutical company applying its unique capabilities in human genetics to the development of better treatments for common diseases.

## 2004 Highlights

- deCODE completed a successful Phase IIa clinical trial of DG031, our lead compound being developed for the prevention of heart attack. DG031 was shown to effectively contain the activity of the pathway identified through the company's genetics research, lowering levels of leukotriene B4 as well as of established biomarkers of heart attack risk such as myeloperoxidase and C-reactive protein (CRP).
- The company completed preclinical work on DG041, its developmental compound for the treatment of atherosclerosis of the extremities, peripheral arterial occlusive disease (PAOD). In early 2005 an IND application was submitted for DG041 and a Phase I clinical study was initiated.
- deCODE signed an agreement under which it will conduct a Phase II clinical trial in asthma in 2005, as part of a co-development partnership. The compound targets the product of a gene, variants of which deCODE has linked to increased risk of asthma.
- deCODE and Roche extended their long partnership in drug development with the signing of a new, three-year alliance to discover and develop inhibitors of phosphodiesterase 4 (PDE4) for the treatment of vascular disease, including stroke.
- Under the company's alliance with Merck to develop new treatments for obesity, Merck in late 2004 completed high throughput screening against one of the targets deCODE has validated through its population genetics work.
- In April 2004 the company completed the private placement of \$150 million of its 3.5% Senior Convertible Notes due 2011 to qualified institutional buyers.



## President's Letter 2004

### **To our shareholders:**

In the past year deCODE has made rapid progress in the execution of its strategy to develop and bring to market new drugs in some of the biggest healthcare challenges worldwide. We are well established as a global leader in human genetics, with an unrivalled track record in the discovery of key genes in common diseases that we have turned into drug targets. As we enter 2005, we are advancing the clinical development of compounds in a number of major therapeutic areas. In doing so, we are seeing the applied value of our population approach for developing new therapeutics with major commercial potential.

We are focusing our capabilities and resources to advance and expand our pipeline, turning our competitive advantage in human genetics into benefit for patients and value for the company and its shareholders.

### **From genes to drugs**

deCODE's competitive advantage lies in its ability to apply unique capabilities in human genetics to the breadth of the drug discovery and development process, from target discovery through clinical trials.

To date one of the most challenging facets of drug discovery in the common diseases has been the very basic question of how to identify drug targets that are causally linked to the onset and progression of disease. Our ability to isolate key genes in these conditions gives us a direct insight into the underlying biology of disease and an important edge in drug discovery. Genes with variants that confer increased risk of disease encode proteins involved in the disease pathway. Drugs targeting these proteins may therefore correct the biological perturbation that leads to disease.

We believe our approach also gives us substantial advantage in drug development. By conducting clinical trials of compounds targeting the products of disease genes in cohorts of patients with at-risk variants of these genes, we can directly analyze the effectiveness of developmental drugs in modulating the disease pathway. This information can then be incorporated into later stage clinical studies, making them a more sensitive means for evaluating the therapeutic potential of a given compound both in people with and without a particular inherited predisposition to disease. Because our approach leads us to the major genetic variants contributing to the common forms of disease, a significant proportion of patients are likely to be susceptible to disease primarily through the inherited risk factors we find. Still others are susceptible through environmental or behavioral factors, and probably most through a combination of the two. The genetics enables us to pinpoint and act upon the biological pathway in question, making it possible to develop new drugs with major therapeutic and commercial potential.

## The Pipeline

### DG031 for heart attack.

Heart attack is the leading cause of death worldwide. Many of the risk factors that contribute to risk of heart attack are well known — obesity, diabetes, lack of exercise, elevated cholesterol, to name but a few — but as in so many of the common diseases the development of drugs to directly target the underlying causes of the disease has been hampered by a lack of understanding of the basic biology that leads to cardiac events.

DG031, our compound being developed for the prevention of heart attack, is aimed at directly addressing this pressing need, and exemplifies how we are applying human genetics to meet major challenges to public health. Our discovery of variants of the gene encoding the 5-lipoxygenase activating protein, or FLAP, that confer significantly increased risk of heart attack, provided us with a foothold in the biology of the disease. FLAP is a protein that regulates the production of leukotrienes, which are important signaling molecules involved in triggering inflammation. We found that in people with at-risk versions of FLAP, there was a significant up-regulation of the branch of the pathway that leads to the production of leukotriene B4 (LTB4), such that more LTB4 was produced. Importantly, our research has shown that the same pathway is also up-regulated in those who have suffered a heart attack but who do not have the at-risk variants of the FLAP gene. LTB4 is produced by cells in atherosclerotic plaques, contributing, we believe, to inflammation in plaques and their propensity to rupture, the event directly preceding most heart attacks.

The goal of our drug development program was therefore to identify a compound to inhibit the activity of FLAP, control the activity of the pathway, and thereby reduce the risk of the disease. In 2003, we in-licensed from Bayer an inhibitor of FLAP, developed originally for another indication. This compound, now DG031, had been extensively tested in clinical trials and had the two key qualities we were looking for: it appeared to be an effective inhibitor of FLAP and had a very good safety profile, having been given to well over a thousand people without any reports of significant side effects.

The first question we wanted to answer in a clinical trial was whether DG031 could contain the activity of the leukotriene pathway. This would be evident most directly by analyzing whether it would lower levels of LTB4. At the same time, we wanted to measure the compound's effect on other well-established biomarkers of heart attack risk, such as myeloperoxidase (MPO) and C-reactive protein (CRP). Adding to our confidence in the importance of this pathway, we discovered another gene further down the leukotriene pathway, variants of which are associated with both significantly increased and decreased risk of heart attack. This second gene, encoding the LTA4 hydrolase (LTA4H), is directly involved in the synthesis of LTB4. Importantly, the at-risk and protective variants of this gene correlate, respectively, with significantly higher and significantly lower levels of MPO. This adds weight to the potential of MPO as a marker for risk of heart attack through the pathway

targeted by DG031, and to our belief that by effectively modulating this pathway we may be able to bring those at average or above average risk of heart attack down to the risk profile of those who are least likely to suffer the disease.

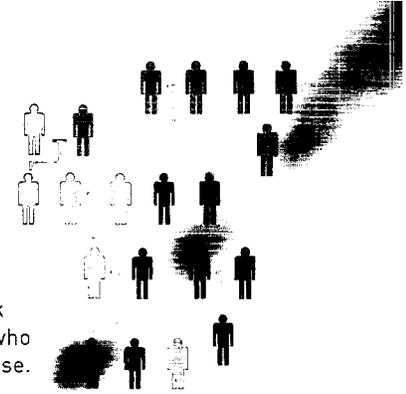
Our Phase II clinical trial conducted in 2004 established that DG031 indeed contain the pathway identified through our genetics research. The results of the trial, conducted in Iceland with approximately 180 heart attack patients with at-risk variants of either or both the FLAP or LTA4H genes, demonstrated that DG031 lowered levels of LTB4, MPO and CRP. We are using this information to design a multi-center Phase III endpoint trial to determine whether DG031 can reduce the likelihood of a second heart attack in individuals who have already suffered one. We plan to initiate this trial in the third quarter of 2005.

We are very excited by our progress in the development of DG031. I believe we are now in a position similar to that of the major pharmaceutical companies when they had shown that the statin drugs could lower LDL cholesterol, but had yet to show that this reduced risk of heart disease. At our chemistry unit outside Chicago we are developing an inhibitor of LTA4H as a follow-on compound to DG031, and aim to submit an IND application on this compound by the end of 2005.

### DG041 for atherosclerosis

Atherosclerosis of the extremities, or peripheral arterial occlusive disease (PAOD), is a major indication for which there is currently no effective treatment. The disease involves the progressive occlusion of the arteries in the legs and arms, leading to reduced blood flow, pain in walking and exercising, and, in extreme cases, gangrene and amputation. PAOD affects one in five people over the age of 70, and is becoming an increasing public health burden as the population in the industrialized world ages.

We are developing DG041, a novel, first-in-class small molecule, as a means of slowing the progression of the disease. DG041 is the first compound we have brought into the clinic that was developed entirely through our own capabilities — from gene and target discovery through structural biology and medicinal chemistry. The target is the EP3 receptor for prostaglandins E2, a protein encoded by a gene with variants we have linked to a three- to five-fold increased risk of the disease. In pre-clinical studies, we have shown that DG041 effectively inhibits human platelet aggregation *in vitro*, and that in mice it has little impact on bleeding time, a crucial attribute for an anti-platelet compound. In early 2005 we filed an IND application for DG041 and initiated a Phase I clinical study to examine safety and tolerability, dosing, and pharmacokinetics and pharmacodynamics with regard to anti-platelet effect. We hope to complete the Phase I program by the fall of 2005, and, if it is successful, aim to swiftly move DG041 into Phase II testing.





#### **Asthma**

We also have an exciting program in asthma, and in 2004 signed a co-development agreement under which we will conduct a Phase II trial of a compound in asthma in 2005.

#### **PDE4 - vascular disease**

In late 2004 we began a new chapter in our long and fruitful partnership with Roche. Under our new, three-year alliance, we are working together to develop phosphodiesterase 4 (PDE4) inhibitors for the treatment of vascular disease, including stroke. We are now using our structural biology capabilities to optimize lead compounds to advance into clinical trials, and hope to have a compound ready for the clinic in 2006.

#### **Delivering on our product strategy**

deCODE is bringing forward to the market new treatments for some of the biggest indications in medicine. The programs mentioned above are only the most advanced in what is a very broad and I believe compelling pipeline. On the heels of these we have exciting drug discovery and preclinical programs in obesity, diabetes and schizophrenia, as well as advanced target discovery work in over a dozen more major diseases.

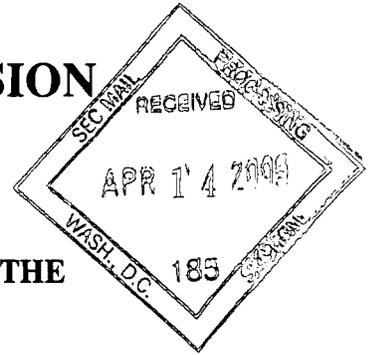
Our progress in 2004 in bringing our lead programs into the clinic was rapid, and at the same time we are well positioned to reap the upside from our efforts. Our unique capabilities in human genetics, as well as our expertise in medicinal chemistry, structural biology and clinical trials, enable us to take our programs forward ourselves and to maximize the value coming out of our discovery engine. Our strategy of leveraging our service businesses to sustain this infrastructure has enabled us to focus the deployment of our cash resources on clinical development. Building on our achievements over the past year, in 2005 we intend to have drug development programs in early-, mid- and late-stage clinical trials, and to advance toward IND applications in at least one more. We look forward to the coming year and to sharing with you our progress in applying our global leadership in human genetics to create new and better medicine.

Kári Stefánsson  
President, Chairman and Chief Executive Officer  
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, 2004

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:**

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
None	None

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

**Common Stock, \$.001 par value**  
(Title of Class)

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

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

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 (\$8.50 per share), as of June 30, 2004, was \$433,615,473.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of February 28, 2005.

<u>Class</u>	<u>Number of Shares</u>
Common Stock, \$.001 par value	54,543,343

**DOCUMENTS INCORPORATED BY REFERENCE**

The Proxy Statement to be filed with respect to the 2005 Annual Meeting of Stockholders is incorporated by reference into Part III.

## PART I

### Item 1. *Business*

#### Overview

Headquartered in Reykjavik, Iceland, deCODE is a biopharmaceutical company applying its discoveries in human genetics to develop drugs for common diseases. Our population approach and resources enable us to isolate genes and drug targets directly involved in the development of many of the biggest challenges to public health. We are turning these discoveries into a growing pipeline of therapeutics aimed at combating the causes of disease, not just the signs and symptoms. As these diseases are common and current therapies are of limited effectiveness, we believe that our strategy represents a significant opportunity to create better medicine with major potential in the global marketplace.

We believe that deCODE's advantage derives from our population approach to human genetics and the ability to apply this approach across the drug development process. 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 common diseases. The proteins encoded by these genes, and other proteins with which they interact in the disease pathway, offer drug targets that appear to be directly involved in the onset and progression of disease. Small-molecule drugs that target these proteins may therefore represent a direct means of modulating the onset or progression of the disease.

Through our medicinal chemistry and structural biology subsidiaries based in the United States we are able to discover novel small-molecule therapeutic compounds, take candidate compounds through preclinical testing, and manufacture sufficient quantities for early-stage clinical trials. Encode, our wholly-owned clinical research organization in Reykjavik, conducts Information-rich clinical trials™ (IRCTs) that utilize our population data and approach to make the clinical development process a more efficient and sensitive means of testing new drugs. In certain programs we have also taken advantage of the fact that drug targets we have identified through our genetics research have already been employed by other companies to make developmental compounds for other indications. By licensing these compounds or entering into co-development arrangements we have been able to leapfrog over several years of drug discovery, entering directly into Phase II clinical trials.

We have seven lead drug development programs, the most advanced of which are those in heart attack, atherosclerosis (peripheral arterial occlusive disease, or PAOD), asthma and vascular disease/stroke. In 2004 we successfully completed a Phase IIa clinical trial in Iceland for DG031, a compound we licensed from Bayer HealthCare AG and which we are developing for the prevention of heart attack. In 2005 we plan to initiate a multi-center, multinational Phase III clinical trial for DG031. In January 2005 we submitted an Investigational New Drug (IND) application for DG041, our compound for atherosclerosis, and for which we initiated enrollment of a Phase I trial in early March. In asthma, we have entered into an agreement with another company to conduct a Phase II trial in Iceland in 2005 for a compound developed originally for a different indication.

In order to support our drug development infrastructure, conserve our cash resources for use in our proprietary therapeutics programs, and diversify risk in our overall drug development portfolio, deCODE also leverages its capabilities to form corporate alliances and to provide services to fee-paying customers. We have formed drug and other product development alliances with Roche and Merck, among others. In addition to conducting work on our targets in our internal and collaborative drug development programs, our medicinal chemistry subsidiary provides drug discovery services to a range of fee-for-service customers. Other service offerings include protein crystallization products, protein crystallization instruments and protein structure analysis through our structural biology subsidiary; clinical trials services through Encode; and DNA analysis services through our genotyping laboratory in

Reykjavik. Our customers include pharmaceutical and biotechnology companies, as well as universities and public-sector research organizations. As an additional means for deriving commercial value from our gene discovery work, we are applying our findings to create DNA-based diagnostics. Because such tests analyze the same links between genetic variation and disease that we have used to identify drug targets, they can be employed to identify patients likely to respond well to a given drug therapy, as well as to identify individuals at an increased inherited risk of developing a disease.

deCODE was incorporated in Delaware in 1996. Our internet address is [www.decode.com](http://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. We do so as soon as reasonably practicable after we electronically file such material with the Securities and Exchange Commission.

References in this report to deCODE, the "Company", "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, as well as deCODE genetics, Inc.'s wholly-owned subsidiaries deCODE chemistry, Inc. and deCODE biostructures, Inc., Delaware corporations, and their subsidiaries.

#### ***Our Target Discovery Programs and Drug Development Pipeline***

Through our isolation of the genes associated with common diseases, we are identifying drug targets and pursuing drug discovery and development. The following table sets forth the status of our

target discovery and drug development programs. Expected start dates for the next phase of clinical development in relevant programs are given in parentheses.

<u>Disease Category</u>	<u>Disease</u>	<u>Gene(s) Mapped</u>	<u>Genes/Targets Identified</u>	<u>Drug discovery and development</u>
CARDIOVASCULAR	Atherosclerosis (PAOD): DG041	X	X	Phase I (March 05) Phase III (3Q05)
	Heart attack (Myocardial Infarction): DG031	X	X	
	Hypertension	X	X	X
	PDE4 in stroke/vascular disease	X	X	
INFLAMMATORY	Ankylosing spondylitis			Phase II (1H05)
	Asthma	X	X	
	Atopy/Allergy	X		
	Chronic obstructive pulmonary disease	X		
	Inflammatory bowel disease			
	Insulin-dependent diabetes			
	Osteoarthritis	X	X	
	Psoriasis	X		
CENTRAL NERVOUS SYSTEM	Rheumatoid arthritis	X		
	Alzheimer's disease	X		
	Anxiety	X		
	Attention deficit and hyperactivity disorder			
	Autism			
	Bipolar disease			
	Depression			
	Dyslexia			
	Familial essential tremor	X		
	Migraine	X		
	Multiple sclerosis	X		
	Narcolepsy	X		
	Parkinson's disease	X		
	Restless Leg Syndrome			
	Schizophrenia	X	X	X
CANCER	Benign prostatic hypertrophy	X		
	Breast cancer			
	Colon cancer			
	Lung cancer			
	Melanoma			
	Prostate cancer	X	X	
	Renal cancer			
	Testicular cancer			
	Thyroid cancer			
EYE	Cataracts			
	Glaucoma			
	Macular degeneration	X		
	Myopia			
	Retinitis pigmentosa			
REPRODUCTIVE	Sveinsson's chorioretinal atrophy	X	X	
	Endometriosis			
METABOLIC & OTHER	Pre-eclampsia	X		
	Familial Combined Hyperlipidemia	X		
	Nocturnal enuresis			
	Non-insulin-dependent diabetes (NIDDM)	X	X	X
OTHER	Obesity	X	X	X
	Longevity	X		

***Our strategy and approach: From genes to drugs***

The primary focus of deCODE's business strategy is the discovery and commercialization of novel therapeutics based upon our gene discovery work in some 50 common diseases. Our population approach and use of human genetics underpin the breadth of our drug development work, from target discovery through clinical trials.

Human genetics offers several advantages as a foundation for developing better drugs. We believe most medicines today are compounds that are aimed at treating the symptoms of disease, seldom the underlying causes. The reason is that to date the basic biology and pathogenesis of most of the big public health challenges—such as heart attack, stroke, obesity, diabetes or asthma—are poorly understood. These diseases are common because of their complexity, and arise due to the interplay of both genetic and environmental factors. Human genetics offers a means of unravelling this complexity and a window into the biology of disease. Through the identification of key genes involved in predisposition to a given disease, it is possible to study the proteins these encode and to develop an understanding of the biological pathway of the disease. Drugs targeting key elements in the pathway may be able to effectively disrupt the disease process.

Using our population approach and resources, we can efficiently conduct population- and genome-wide scans to home in on key genetic factors involved in any common disease. We believe deCODE is the world leader in gene discovery in the common diseases. As of late 2004 we had isolated fifteen key genes involved in eleven common diseases with major unmet medical need. These genes have provided us with drug targets we believe are rooted in the basic biology of human disease, enabling us to pursue drug discovery and development work on a small number of targets with high potential therapeutic impact.

Isolating genes contributing significant risk for common diseases requires the ability to gather and correlate detailed information on disease and genetic variation across as large a group of people as possible: ideally, across an entire population. To do this effectively it is also critical to have accurate and comprehensive genealogical records, the only means for tracing how the genetic components of disease travel between generations. We believe a population with all three sets of data—genetic, medical and genealogical—is the scarce resource in human genetics. In Iceland, deCODE has brought this information together. Along with its genealogy database covering the entire present day population and stretching back to the founding of the country more than 1000 years ago, deCODE has gathered genotypic and medical data from more than 110,000 volunteer participants in our gene research in Iceland—over half of the adult population. Using our genealogy database, our scientists can link together patients affected by any disease into large extended families. Applying high-throughput genotyping and proprietary datamining instruments, we first “map” genes through linkage analysis, homing in on small segments of particular chromosomes that related patients share to a much higher degree than would be expected by chance. More detailed analysis of these regions with denser sets of markers enables us to isolate the key genes associated with risk of the disease, as well as the versions or haplotypes of these genes that are highly correlated with the disease.

Unlike companies studying predetermined genes, gene expression patterns, or genes in animal models, deCODE's approach allows for a virtually hypothesis-free discovery process that we believe can pinpoint key inherited causes of human disease. Following the isolation of major genes, we analyze the proteins the genes encode, the biological function of these proteins, and the interaction of these with other proteins in an effort to identify the biological pathway of a given disease. In most cases, the proteins encoded by the disease-genes themselves serve as good drug targets. If they do not, other points in the disease pathway may be selected for therapeutic intervention. The development of DG041 for atherosclerosis (PAOD) is an example of how we have gone from the isolation of a disease gene to a compound ready for clinical trials using our own target and drug discovery capabilities. The

development of DG031 for heart attack is an example of how we can accelerate the drug development process based upon our target discovery work by in-licensing a promising existing compound.

At deCODE we are also applying our population approach and resources to make the clinical development process a more efficient and sensitive means of evaluating the therapeutic potential of new drugs. We have pioneered the concept of the IRCT, integrating into the design, cohort selection, and results analysis of clinical trials detailed data on disease, recurrence risk, biomarkers and genetics. By doing so, we believe we can go beyond the standard trial structure of recruiting participants according to basic clinical diagnosis and then measuring outcome against static endpoints only. The IRCT paradigm enables us to use clinical development to determine not just whether people respond to drugs, but also who responds best and why. We believe this offers a means for better managing risk in the development process, speeding drug development and lowering cost, and for maximizing the patient benefit from and market potential of new drugs.

The key to the IRCT approach is our ability to use our population data in clinical trials conducted by Encode. To date, Encode has enrolled over 3,000 patients in over 30 clinical trials. In an IRCT the trial cohort can be enriched by using population-based epidemiological data as well as data on genetic markers and serum biomarkers correlated with risk of a given disease. The clinical development process can thus integrate the same data used to identify drug targets, enabling us to select for clinical trials patients whom we believe susceptible to disease through the pathway targeted by the drug.

Because of the much larger amount of information going into and coming out of an IRCT, we believe we can test therapeutics for major indications more quickly and with smaller cohorts than would normally be required. The results of an IRCT can then be applied to understand and predict the responsiveness of the patient population at large, information that can be used in further clinical development or to bring the drug to market.

deCODE has integrated capabilities for drug discovery and development, ranging from targeted *in vitro* and model organism biology through structure-based drug design, medicinal chemistry and Current Good Manufacturing Practices (cGMP) manufacturing for clinical trials. These capabilities enable us to speed the discovery of developmental compounds and maximize the value coming out of our gene discovery engine.

Our biology group, based in Reykjavik, conducts functional work on genes we have isolated, drawing out the biological pathways of disease and identifying optimal points for therapeutic intervention. Through the design of biological assays and screening of compound libraries we are able to identify compounds that effectively block or stimulate target proteins.

We believe that our structural biology group on Bainbridge Island, near Seattle, is one of the leading groups in the industry in protein expression and three-dimensional structure determination, based on its expertise ranging from crystallography to large-scale protein production. The analysis of three-dimensional images of target proteins and how they bind to therapeutic compounds provides our drug discovery teams with new insight into the nature of compounds that may be able to deliver maximum therapeutic effect. Our structural biology group has the ability to clone and express genes of interest to produce proteins with tailored properties, and has developed innovative software and equipment for automating and streamlining the generation of protein crystals for structure determination using X-ray imaging.

deCODE's chemistry group based outside Chicago conducts lead discovery, medicinal chemistry and development of viable synthetic routes required to manufacture cGMP materials in quantities sufficient for pre-clinical and clinical studies. The group employs advanced tools for absorption, distribution, metabolism and excretion (ADME) profiling, physicochemical property optimization and pre-formulation.

This comprehensive infrastructure for drug discovery allows deCODE to pursue drug discovery and development in-house; partner projects on favorable terms; and pursue in-licensing opportunities of existing compounds based on information on the specific qualities we wish to see in a developmental drug. At the same time, we are leveraging these capabilities in structural biology and chemistry to generate revenue for the Company in the near-term through our fee-for-service offerings.

The descriptions below of our development of DG031 and DG041 illustrate what we believe to be the advantages of our approach for making better drugs.

***The pipeline: DG031 for the prevention of heart attack***

Our program in heart attack (also called MI) is an 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.

Heart attack is a leading killer in the industrialized world. Nearly half of men and one-third of women who reach the age of forty will suffer a heart attack in their lifetime; about a third of those who survive their first heart attack will go on to suffer another. Currently, there are effective drugs for treating some of the contributing risk factors for heart attack, such as high-cholesterol, diabetes and hypertension. However, we believe that there are no existing drugs aimed at preventing the pathogenesis of the disease itself. Our work is focused on meeting this need based upon a better understanding of the biological processes that lead to heart attack.

Through a population-based, genome-wide study involving hundreds of heart attack patients from across Iceland, deCODE scientists discovered common variations in the gene encoding FLAP, or 5-lipoxygenase activating protein, that confer a nearly twofold increased risk of the disease. This represents a greater risk factor than does elevated cholesterol. The FLAP regulates the synthesis of leukotrienes, molecules known to be potent drivers of inflammation. Our functional studies showed that the versions of the FLAP gene associated with heart attack led specifically to increased production of leukotriene B4 (LTB4). Importantly, LTB4 is produced by cells in the atherosclerotic plaques that build up inside artery walls. Inflammation in plaques contributes to their instability and propensity to rupture, the event directly preceding most heart attacks.

Our isolation of the FLAP gene therefore provided compelling evidence that we had identified a basic mechanism increasing risk of heart attack. Further genetics and functional research added weight to this discovery. We found that individuals who had previously suffered a heart attack but who did not have one of the at-risk versions of the FLAP gene also had higher levels of LTB4 than did people with no history of heart disease. This finding supports our belief that we have identified a major biological process involved in heart attack in general—not only in people with this particular genetic predisposition. Moreover, the increase in levels of LTB4 was accompanied by significant increases in other biomarkers that have been linked to risk of heart attack: myeloperoxidase (MPO), C-reactive protein (CRP), and serum amyloid A (SAA). MPO production is triggered by inflammatory mediators such as LTB4, and thus may serve as a fairly direct indicator of LTB4 levels. MPO in turn may stimulate the liver to produce CRP and SAA, which could serve as secondary indicators of risk through this pathway.

deCODE scientists also isolated another gene further down the leukotriene pathway from FLAP, one version of which increases risk of heart attack, and another version of which is protective. The protein encoded by this gene, the leukotriene A4 hydrolase (LTA4H), is directly involved in producing LTB4. In line with the functional work on the at-risk versions of the FLAP gene, those with the at-risk versions of the LTA4H gene had significantly higher levels of MPO than did controls, and those with the protective variants had significantly lower levels. The at-risk versions of both the FLAP and LTA4H genes have been confirmed in non-Icelandic populations. In studies in U.S. cohorts, the principal at-risk

versions of both genes were found in similar frequency in U.S. MI patients as in Iceland; i.e. about one-half of MI patients carried either or both at-risk versions of the FLAP and LTA4H genes.

These findings point to a novel, direct and potentially powerful therapeutic approach for preventing heart attack: inhibiting the activity of the branch of the leukotriene pathway that produces LTB<sub>4</sub>. In October of 2003, deCODE licensed a compound from Bayer AG, now known as DG031, that inhibits leukotriene synthesis through its binding to FLAP. Because of the extensive safety and clinical data already gathered on the compound through previous clinical testing in another indication, in-licensing enabled us to advance our drug discovery and enter directly into clinical testing.

In 2004, deCODE conducted a Phase IIa IRCT for DG031 in Iceland. The purpose of the trial was to examine whether by inhibiting FLAP with various dose levels of DG031 it would be possible to reduce levels of LTB<sub>4</sub> and other biomarkers such as MPO, CRP and SAA that might serve as surrogates for heart attack risk in subsequent trials. The 10-week crossover trial enrolled approximately 180 patients with a history of heart attack and the at-risk versions of one or both of the FLAP and LTA4H genes. The results demonstrated that DG031 was well-tolerated. DG031 significantly suppressed production of LTB<sub>4</sub> and MPO as well as CRP and SAA; levels of the latter two markers began to decline significantly after patients had been on the drug for four weeks, and continued at significantly lower levels for several weeks after they had stopped taking the compound. All of these effects are on top of the effects of the current standard of care, including statin drugs, which continued for all patients for the duration of the trial.

The Phase IIa trial thus demonstrated that DG031 can effectively help to correct the biological process through which genetic predisposition to heart attack manifests itself. Moreover, the nature of this process has an important bearing on the therapeutic potential of DG031 and other compounds targeting the products of disease genes in common diseases. In our work in heart attack, as in virtually all of the programs in which we have identified genes, genetic susceptibility appears to act primarily by either up-regulating or down-regulating the activity of an important biological pathway. That is, the genetic variants correlated with common diseases appear to push individuals to one extreme or other of what is probably a normal distribution of how much of a given protein is encoded by a key gene. We believe that this is the reason why in many instances, as with the LTA4H gene, we find both at-risk and protective variants of the same gene.

This is important from a therapeutic perspective because it means that while it may be most efficient and of greatest immediate medical benefit to first develop such treatments for those at highest risk, in order to bring them down the risk spectrum, the eventual therapeutic goal from a public health perspective may be much broader: to bring everyone, even those at "average" risk, down to the risk profile of those who are least likely to suffer the disease. This is the paradigm that has for example been followed in the statin drugs. These were first developed to treat those with extremely high levels of LDL cholesterol. However it is now widely accepted that that they may be of benefit to just about anyone middle aged or older who may be at risk of cardiovascular disease and whose LDL levels are not already very low.

We are employing the results of our Phase IIa study of DG031 in the design of a multicenter Phase III study for the prevention of a second heart attack in those who have already suffered one. We hope to initiate enrollment for this trial in the third quarter of 2005. We believe that by enrolling a cohort with a recent history of cardiac events and risk factors such as diabetes it may be possible to conduct a Phase III outcome study with a smaller number of patients than would be required for a traditionally-structured trial. The goal of the trial will be to measure DG031's effectiveness in reducing the number of heart attacks in the study group compared to what would be expected without the use of the drug, correlating the results with genetic risk factors and biomarker data through our IRCT paradigm.

Before a Phase III study can be conducted we must to obtain regulatory approvals as well as the approval of institutional review boards for patient recruitment at the various sites participating in the multi-center trial. We need to contract with an outside party who will be responsible for recruiting participating physicians and patients. We also need to contract with manufacturers for the supply of the drug, conforming to our time constraints and regulatory standards, which in turn depends on the timely availability of ingredients and the successful manufacture of the clinical material as well as the drug tablets. We are in the process of obtaining the proper approvals, and contracting with outside suppliers for production of the drug and organization of the study.

We are developing an inhibitor of LTA4H as a follow-on compound to DG031.

#### ***Our pipeline: DG041 for the treatment of atherosclerosis (PAOD)***

In our program in atherosclerosis (PAOD), we have gone from the isolation of a disease gene to the submission of an IND application in under three years. Peripheral arterial occlusive disease, or PAOD, is a vascular disorder that affects over 10% of the population and one in five people over the age of 70. The initial symptoms of PAOD include intermittent pain in the legs while walking or exercising, due to the narrowing by atherosclerotic plaques of one or more major arteries in the legs. The constriction of blood flow leads to insufficient oxygenation of muscle tissue. As the disease worsens it can lead to tissue damage, ulceration and gangrene, and in extreme cases may require the amputation of the affected limb. The disease is under-diagnosed, and the current mainstay of treatment is surgery to bypass the occluded vessels. Currently, no drug treatment is available that targets the underlying causes of PAOD or prevents its progression.

With our developmental compound DG041 we hope to directly address this need. Our population genetic studies have identified versions of the gene encoding the EP3 receptor for prostaglandin E2 (PGE2) that correlate with a significantly increased risk of PAOD. In January 2005 deCODE submitted an investigational new drug application (IND) to the U.S. Food and Drug Administration (FDA) for DG041. Clinical trials under the IND were allowed by the FDA in February and we initiated the first Phase I clinical trial of DG041 in March 2005. DG041 is the first clinical candidate developed entirely through deCODE's own capabilities in gene discovery and drug development.

DG041 is a novel, first-in-class, orally-administered small molecule for the treatment of PAOD. Functional analysis underscores the important role of EP3 in modulating the biology of the platelet and the vessel wall. Binding of PGE2 to EP3 is known to increase platelet aggregation, and EP3 is expressed in smooth muscle cells found in atherosclerotic plaque. In preclinical *in vitro* studies DG041 has been shown to inhibit human platelet aggregation induced by PGE2, and to do so in a dose-dependent manner. Furthermore, *ex-vivo* inhibition of rat platelet aggregation can be demonstrated after oral dosing with DG041. In mice, DG041 has been shown to protect against intravascular coagulation in a model based on prostanoid-induced platelet activation. DG041 has been shown to have minimal effect on bleeding time in animal studies.

#### ***Diagnostics***

We believe diagnostics represent an additional avenue for creating value from our gene discoveries. Since genetic variations linked to disease are by definition markers of disease susceptibility, we can apply the same findings we employ in our drug discovery efforts to the development of DNA-based diagnostic tests. We believe that such tests may be useful as a means for identifying patients who are likely to respond well to drugs that target the same disease pathway, and to identify individuals who are at a particularly high risk of a given disease. We also have expertise for developing diagnostics to gauge individual responsiveness to existing drugs, what are commonly referred to as pharmacogenomic tests. For this we employ a process known as expression profiling, in which we look at the activity or expression levels of a set of genes in cells that have been exposed to the drug in question. By analyzing

patterns of expression in cells from individuals who either respond or do not respond well to the drug in question, we are able to identify a panel of a small number of genes expression levels for which can provide an accurate prediction of individual responsiveness to the drug.

#### *Drug discovery and development services*

In order to offset the cost of maintaining its proprietary drug development infrastructure, deCODE utilizes its capabilities in medicinal chemistry, structural biology and clinical trials to offer contract services to fee-paying customers, principally pharmaceutical and biotechnology companies.

Our medicinal chemistry subsidiary, deCODE chemistry, Inc., based in Woodridge, Illinois, provides a full range of drug discovery technology and services using multiple integrated high-throughput technologies to streamline the drug discovery process. 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 current good manufacturing practices (cGMP) materials in quantities for pre-clinical and early-stage clinical studies.

Our structural biology subsidiary, deCODE biostructures, based on Bainbridge Island, near Seattle, determines three-dimensional X-ray crystal structures of target proteins for structure-based drug design and development. The group has solved co-crystal structures in major target classes including kinases, phosphatases, topoisomerases, polymerases, proteases, and phosphodiesterases. deCODE's structural biology capabilities span a broad range of expertise in the protein X-ray crystal structure determination process, from gene synthesis to final model building and refinement.

Our subsidiary Encode conducts information-rich clinical trials for our proprietary programs and for contract customers, principally pharmaceutical and biotechnology companies. We believe that Encode's advantage is the IRCT model: the ability to integrate population phenotypic and genetic data into the clinical development process. In an IRCT the trial cohort can be enriched by using population-based epidemiological data as well as data on genetic markers, gene-expression patterns and serum biomarkers correlated with a given disease. Because of the much larger amount of information going into and coming out of an IRCT, we believe we can test therapeutics for major indications more quickly and with significantly smaller cohorts than would normally be required. The results of an IRCT can then be applied to understand and predict the responsiveness of the patient population at large, information that can be used in further clinical development or to bring the drug to market.

#### *Additional service offerings*

Population research into the genetic factors that contribute to common diseases requires the gathering, management and genotyping of thousands of biological samples. At our main research facility in Reykjavik, we have what we believe is 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 which 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 genotyping services include pharmaceutical companies, research consortia and academic institutions.

In the process of conducting large-scale population genetics research we have developed statistical and data mining tools to generate, assemble and analyze genealogical, disease and genotypic information. Although it is not a principal focus of our business, we believe that we may be able to capture additional return on our investments in informatics by marketing certain of our systems through partnerships with sales forces in this field. Our principal informatics products are the Clinical Genome Miner Discovery™ system and the Identity Protection System™. The CGM Discovery is a computer based application for isolating and analyzing genes and gene variations associated with

particular diseases. 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, genealogical and genetic data. We are marketing these systems in alliance with IBM, and both have been adapted to run on IBM operating systems, software and servers.

## **Collaborations**

### *F. Hoffmann-La Roche (Roche).*

*Therapeutics.* In 1998 we entered into a research collaboration and cross-license agreement with Roche, 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. Under the 2002 agreement, which expired on February 1, 2005, we are entitled to receive royalties on the sales of any drugs that are developed coming out of work conducted under this alliance.

In November 2004, we signed a new three-year agreement with Roche to co-develop inhibitors of PDE4 for the prevention and treatment of vascular disease, including stroke. This agreement continues work advanced under the 2002 agreement, and we will focus on optimizing lead compounds identified under the previous agreement and beginning clinical development. We and Roche will share drug discovery and clinical trials costs under this new agreement, and we may receive milestone payments and royalties based on drug sales.

*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 a secondary avenue for turning our target discovery research 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 \$34,875,000 in research funding, up-front fees and milestone payments. We may receive \$9,375,000 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 \$21,877,850 and may receive research funding and technology access in the future of \$5,250,000. 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 30 days' notice in the event that the research program fails to achieve certain specified goals. As of the end of 2004, we had discovered three genes linked to obesity under this alliance, and Merck had

generated lead series of compounds against one of the targets we have validated through our genetics research.

*Information Rich Clinical Trials.* In February 2004, we entered into an agreement with Merck which provides that we will conduct information-rich clinical trials on a range of Merck's developmental compounds that Merck selects for inclusion in the program. The term of the alliance is seven years, subject to termination by Merck after five years. Under the terms of the agreement, we may receive royalties on sales of drugs and diagnostics developed as part of the alliance. We received 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. To date, Merck has not selected any compounds for development under the agreement.

*National Institute of Allergy and Infectious Diseases (NIAID).*

In September 2004, we were awarded a five-year \$23.9 million contract by the NIAID, part of the U.S. National Institutes of Health. Under the contract, we will apply our population approach and resources to discover genetic factors associated with susceptibility to certain infectious diseases and with responsiveness to vaccines targeting such diseases. The University of New Mexico will be working with us to conduct functional validation of biological pathways discovered through our genetic research. The National Center for Genome Resources will provide bioinformatics resources to make study information and results available to the scientific community.

*Bayer HealthCare AG (Bayer).*

In 2003 Bayer granted us 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. Under the agreement, we will pay Bayer 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 rely on patents, trade secret law and contractual non-disclosure and confidentiality arrangements to protect our proprietary information and technology. 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, contractual confidentiality obligations, or if they 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, the compounds that we invent and will develop as potential drugs, the genes we discover; mutations and variants 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 2004, we had approximately 27 issued U.S. patents and approximately 11 issued patents

in non-US jurisdictions. We also had approximately 63 pending patent applications in the US and approximately 93 pending patent applications in non-US jurisdictions. We 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 licensed 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, the methods for selecting those patients that we believe are most likely to benefit from administration of those compounds, due to their specific genetic makeup. However, it is not certain that such patents will ultimately be issued, 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 restoration of up to 5 years of patent term for a patent that covers a new product or its use, to compensate for time lost from the effective life of the patent due to the regulatory review process of the FDA. 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 5 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, the FDA may not approve an "abbreviated NDA" or "paper NDA". Finally, any abbreviated or paper NDA applicant will be subject to the notification provisions of the Hatch-Waxman Act, which should facilitate our receipt of notice about potential infringement of our patent rights.

Other jurisdictions have statutory provisions similar to those of the Hatch-Waxman Act, that afford both patent extensions and market exclusivity for drugs that have obtained market authorizations, such as European Supplementary Protection Certificates that extend effective patent life and European data exclusivity rules that create marketing exclusivity for certain time periods following marketing authorization. We believe that if we obtain marketing authorization for DG031 in Europe or other jurisdictions with similar statutory provisions, DG031 may be eligible for patent term extension and marketing exclusivity under these provisions and we plan to seek such privileges.

## **Competition**

We face, and will continue to face, intense competition in our gene discovery programs from pharmaceutical companies, biotechnology 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.

We also face intense competition in drug development, particularly from pharmaceutical and biotechnology companies. Certain of these companies may, using other approaches, identify and decide to pursue the discovery and development of new drugs targets or disease pathways that we have identified through our human population genetics research. 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.

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 govern the pre-clinical and clinical testing, design, manufacture, labeling, supply, distribution, recordkeeping, reporting, sale, advertising and marketing of the products. These regulatory controls 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. 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 drug 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), (v) review by an advisory committee to FDA for recommendations regarding whether the NDA should be approved, and (vi) 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 (IRB), and study subjects must provide informed consent to participation in the study. Clinical trials are subject to oversight by the IRB at each study site and by the FDA.

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 pre-approval 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. FDA regulations impose requirements for recordkeeping, periodic reporting, and reporting of adverse experiences with the product. 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, seizure of the product, injunction against the company, and/or the imposition of criminal penalties against the manufacturer and/or NDA holder and/or officers and employees. 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.

Diagnostic products are regulated as medical devices in the United States. Devices are subject to similar types of FDA regulatory controls and enforcement actions as apply to drugs, but many aspects of device regulation differ. Medical devices are classified into one of three classes, Class I, II or III, on the basis of their risk and the controls deemed necessary to assure their safety and effectiveness. Depending on how a device is classified, regulatory controls may include labeling, recordkeeping, reporting, adherence to the FDA's quality system requirements, or QSR, including good manufacturing practices, premarket notification under Section 510(k) of the Federal Food, Drug, and Cosmetic Act (FDC Act), clearance by the FDA, performance standards, patient registries, FDA guidances, data from clinical testing that demonstrates the device is safe and effective for its intended use, and FDA approval of a premarket approval application (PMA) prior to marketing and distribution.

The conduct of device clinical trials is subject to FDA regulation, including requirements for IRB approval, informed consent, recordkeeping, and reporting. To the extent our diagnostic products may be intended for use as prognostic tests for selecting patients most likely to benefit from drug therapies, such products may be studied in the clinical trials of the related drug product under the regulatory provisions governing pharmaceutical clinical trials, but require a separate PMA approval or 510(k) clearance under the medical device requirements. The FDA's policy for co-development of therapeutic and diagnostic products is evolving, and changes in FDA's regulatory policy can affect the development, testing, regulatory approval pathway, and marketing of our products.

FDA has developed special rules for *in vitro* reagents that are not approved or cleared as diagnostic products. FDA has imposed restrictions on the manufacture, labeling, sale, distribution, advertising, promotion and use of analyte specific reagents (ASRs). FDA defines ASRs as antibodies, specific receptor proteins, ligands, nucleic acid sequences, and similar reagents which, through specific binding or chemical reaction with substances in a specimen, are intended for use in a diagnostic application for identification and quantification of an individual chemical substance or ligand in biological specimens. An ASR can be used by a clinical laboratory to develop in-house ("home brew") laboratory assays if the laboratory is certified for high complexity testing under the Clinical Laboratory Improvement Act of 1998 as amended (CLIA). Most, but not all, ASRs are exempt from 510(k) premarket notification, and all are subject to good manufacturing practices (GMP) requirements and to the restrictions on their sale, distribution and use imposed by FDA regulation. In addition, FDA regulates Research Use Only (RUO) diagnostic products, which by their mandatory labeling are not intended for use in diagnostic procedures. The clinical usefulness of RUO products is unknown and thus their use is limited to research purposes only. Diagnostic products and reagents that we develop now and in the future may be subject to these and other applicable FDA regulations.

For devices with an approved PMA, the manufacturer must submit periodic reports containing information on safety and effectiveness and other information specified in FDA regulations, and modifications to the product or its intended use can trigger the need to file a PMA Supplement for approval by FDA. All devices are subject to continuing regulation by the FDA, including record-keeping and reporting requirements, and reporting when a device may have caused or contributed to a death or serious injury or has malfunctioned in a way that would be likely to cause or contribute to a death or serious injury if the malfunction were to recur.

Product labeling and promotional activities for drug and device products are subject to scrutiny by the FDA, and products may be promoted only for their approved indications. Violations of promotional requirements for drugs and devices may also involve violations of the federal False Claims Act, anti-kickback laws, and other federal or state laws. In addition to the government bringing claims under the federal False Claims Act, *qui tam*, or "whistleblower," actions may be brought by private individuals on behalf of the government. Also, competitors may bring litigation under the Lanham Act relating to product advertising.

The European Community (EC) and EC member states maintain drug regulatory systems for medicinal products and medical devices that are comparable in their rigor to those in the United States. Clinical trials of medicinal products require government authorizations (based on evidence of safety from preclinical tests and other sources), must be reviewed and approved by ethics committees, and must be carried out in compliance with good clinical practice. There is no guarantee that permission will be granted for clinical trials of new medicinal products, and permission can be withdrawn if safety issues arise during a clinical trial.

Medicinal products may not be introduced to the market in the EC unless a marketing authorization has been granted by a competent authority. Marketing authorization applications for new chemical entities may be submitted to multiple EC member states under the mutual recognition system (which results in harmonized conditions of approval) or to the European Medicines Agency (EMA), which administers a system that leads to a single marketing authorization that is valid in all EC member states. Requirements for marketing authorization applications are similar to those for NDAs in the United States, including requirements for proof of safety, efficacy and quality. These requirements are demanding, and there is no assurance that a product for which a marketing authorization application is submitted will be approved. Manufacturing facilities must also comply with EC requirements for good manufacturing practice, and if located in the EC must be licensed by the competent authority of the relevant member state. Requirements may be imposed for post-marketing studies, and there are detailed requirements for post-market surveillance of safety (pharmacovigilance). Advertising and promotion are scrutinized by authorities in each member state, and in some cases by the EMA as well. Products may be removed from the market, permanently or temporarily, if safety questions arise, and there are only limited procedural requirements before such actions can be taken.

In addition to these controls under Medicines Law, most EC member states maintain some form of control over the pricing or reimbursement of medicinal products. In many member states, marketing may not commence until a price or reimbursement level has been determined, and in some member states products are also subject to cost-effectiveness reviews that can, for practical purposes, determine whether they will be utilized.

The EC maintains a separate system for medical devices, including *in vitro* diagnostic devices that may be developed in conjunction with medicinal products whose use depends on biomarkers. Manufacturers must meet requirements for quality control, which may entail interaction with quasi-governmental Notified Bodies, and comply with essential requirements and standards adopted under EC law. There is no harmonized system of control on the advertising and promotion of medical devices, and requirements vary from country to country. In addition, many EC member states maintain systems to evaluate new medical devices to determine whether they are cost-effective or otherwise appropriate for use in national health systems, other maintain other systems to control pricing or reimbursement of medical devices.

## **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, or 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.

Our activities in the U.S. 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 activities in the U.S. 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, 2004, deCODE and all of its subsidiaries employed 429 full-time staff. Of the total number at the end of 2004, approximately 114 were employed in the U.S. and 315 in Iceland. More than 110 held Ph.D. or M.D. degrees and approximately 313 held college degrees. 350 employees were engaged in, or directly supported, research and development activities, of whom 274 worked within the laboratory facilities and 70 held positions associated with the development and support of informatics. 42 employees were engaged in various professional support functions such as Finance, Business Development, Legal, Communications, Human Resources and Clinical Collaborations, and some 37 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***

Cost of revenue, including costs incurred in connection with collaborative programs for 2004, 2003 and 2002, were \$43.4 million, \$45.9 million and \$48.7 million, respectively. The cost of revenue, including costs incurred in connection with collaborative programs represent our customer-sponsored research and development activities.

Our research and development for proprietary programs for 2004, 2003 and 2002, was \$24.9 million, \$17.6 million and \$40.9 million, respectively.

### ***Geographic Information***

Long-lived assets located in the United States and Iceland were \$22,955,000 and \$55,115,000, respectively at December 31, 2004, 26,553,000 and \$69,861,000, respectively, at December 31, 2003 and \$30,089,000 and \$75,182,000, respectively at December 31, 2002.

Revenues attributed to the United States and to Iceland were \$13,680,000 and \$28,447,000, respectively for 2004, \$13,744,000 and \$33,067,000, respectively, for 2003 and \$14,485,000 and \$26,580,000, respectively, for 2002.

### ***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 30%, 43% and 41% of the company's consolidated revenue in 2004, 2003 and 2002, respectively. Merck accounted for approximately 22%, 19% and 4% of the company's consolidated revenue in 2004, 2003 and 2002, respectively. 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 which could affect the resources available to support our drug discovery programs.

## **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.

### **Risks Related to Our Business**

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

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 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 therapeutic or diagnostic products we develop as a result of our genetic work may not detect, prevent, treat or cure a particular disease. Accordingly, even if we are successful in identifying specific genes, our 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:

- establish that they are safe and effective;
- successfully compete with other technologies and products;
- ensure that they do not infringe on the proprietary rights of others;
- establish that they can be manufactured in sufficient quantities at reasonable costs;
- can market them successfully;
- obtain and maintain regulatory approvals for them.

We may not be able to meet these conditions. We expect that it will be years, if ever, before we will recognize significant revenue from the development of therapeutic or diagnostic 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 \$57.3 million for the year ended December 31, 2004, and had an accumulated deficit of \$387.5 million at December 31, 2004. 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. 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). 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.

*Clinical trials required for our product candidates or the products of our customers and partners 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 or failure to obtain approval from the pertinent review boards or regulatory authorities;
- longer treatment time required to demonstrate effectiveness or determine the appropriate product dose;
- lack of sufficient supply of the product candidate;
- adverse medical events or side effects in treated patients;
- lack of effectiveness of the product candidate being tested; and
- 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. Delays or termination of clinical trials that we conduct for our partners or customers may also harm our financial results as payments under these contracts may be delayed, reduced or curtailed.

***Co-development of therapeutic and diagnostic products may be required, and delays in the development and approval of a commercially available diagnostic may delay drug approval or impede market acceptance of the therapeutic product.***

The use of some of our therapeutic products may be dependent upon the selection of patients using both clinical and genetic markers. This may require co-development and clinical testing of the therapeutic drug and a related diagnostic product. In the United States, drug approval could be delayed until we successfully obtain FDA approval of the related diagnostic product. In addition, if the diagnostic test cannot be performed on a commercially viable basis, it may impede market acceptance of our approved therapeutic 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 30%, 43% and 41% of the company's consolidated revenue in 2004, 2003 and 2002, respectively. Revenue under our alliance with Merck accounted for approximately 22%, 19% and 4% of the Company's consolidated revenue in 2004, 2003 and 2002, respectively. The loss of any significant customer may significantly lower our revenues and affect the resources available to support our drug discovery programs..

***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 and product development programs.***

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 (including clinical trials); 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 have relied on, may continue to rely on partnerships 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.

***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 that can produce sufficient quantities of drugs for large scale clinical trials. Accordingly, 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. In order to conduct our currently planned Phase III clinical trial of DG031, we will have to contract with third parties to manufacture a sufficient supply of the drug for the trial and to produce tablets containing DG031 in amounts sufficient for the clinical trial. While we have signed contracts with suppliers for the production of DG031 material and tablets for the planned launch of our Phase III clinical trial, we have not received the finished drug tablets, and we may fail to secure sufficient supply of the drug in timely manner for the duration of the trial.

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 ability to develop and deliver such products on a timely and competitive basis and, in the longer term, the 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. 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.***

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 we fail to comply with

these laws and regulations, we could lose public support for participation in our research and we 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.

***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 conduct clinical trials of products we are developing and contract with drug companies and clinical research organizations 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

If, in the course of these trials or activities,

- we do not perform our services to contractual or regulatory standards;
- we fail to obtain permission to conduct trials from the appropriate authorities in Iceland;
- 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 and clinical research organizations with whom we contract or by study participants. We maintain product liability insurance for claims arising from the use of products we are developing in clinical trials conducted by Encode and are covered by the product liability insurance of the drug companies and clinical research organizations for whom we provide clinical trial services for claims arising from the use of their products in such trials. Such insurance may be inadequate and in any event would not cover the risk of a customer deciding not to do business with us as a result of poor performance or claims for a customer's financial loss as the result of our failure to perform our contractual obligations properly.

***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.***

The users of any therapeutic or diagnostic products developed by us or our collaborators as a result of our discovery or research programs (including participants in our clinical trials) may bring product liability claims against us. Except as described above with respect to clinical trials conducted by Encode, we currently do not carry liability insurance to cover such claims (although we expect to obtain such insurance for our Phase III trial of DG031). 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.

***Our fee-for-service work bears certain risks of liability to our customers.***

In our work for fee-for-service customers, we often synthesize compounds and provide recommendations for research direction for our customers. We may be liable to our customers for damages if we perform such services negligently or with willful misconduct. Failure to perform to customer expectation also may limit future business from our existing customers, or could result in the holdback of certain payments due to us.

In addition, we typically have the obligation to maintain the confidentiality of proprietary information of our customers. While we have systems in place to ensure that such confidentiality is protected, because we conduct work on our internal projects at the same facilities where we work for our customers, there is an increased risk that customers may claim that we have violated our confidentiality obligations or used their proprietary information in our proprietary projects.

***Increased leverage as a result of our convertible debt may harm our financial condition and results of operations.***

On December 31, 2004, we have \$204,624,000 of outstanding debt as reflected in our balance sheet. We may incur additional indebtedness in the future and our outstanding 3.5% Senior Convertible Notes do not restrict our future issuance of indebtedness. Our level of indebtedness will have several important effects on our future operations, including, without limitation:

- a portion of our cash flow from operations will be dedicated to the payment of any interest required with respect to outstanding indebtedness;
- increases in our outstanding indebtedness and leverage will increase our vulnerability to adverse changes in general economic and industry conditions, as well as to competitive pressure; and
- depending on the levels of our outstanding debt, our ability to obtain additional financing for working capital, capital expenditures, general corporate and other purposes may be limited.

Our ability to make payments of principal and interest on our indebtedness depends upon our future performance, which will be subject to the success of our development and commercialization of new pharmaceutical products, general economic conditions, industry cycles and financial, business and other factors affecting our operations, many of which are beyond our control. If we are not able to generate sufficient cash flow from operations in the future to service our debt, we may be required, among other things:

- to seek additional financing in the debt or equity markets;
- to refinance or restructure all or a portion of our indebtedness, including the Notes;
- to sell selected assets; or
- to reduce or delay expenditures on planned activities, including but not limited to clinical trials, and development and commercialization activities.

Such measures might not be sufficient to enable us to service our debt. In addition, any such financing, refinancing or sale of assets might not be available on economically favorable terms.

***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. 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 leave, 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, our debt 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 Collaborative Relationships**

***If we are unable to form and maintain the collaborative relationships that our business strategy requires, our programs will suffer and we may not be able to develop products.***

Our strategy for developing products and deriving revenues from them is dependent, in part, upon our ability to enter into collaborative arrangements with research collaborators, corporate partners and others. We may rely on these arrangements both to provide funding necessary to our product development and to obtain goods and services that we require for our product development. We do not have the capacity to conduct large scale Phase III clinical trials and will rely on partnerships or third party contractors to conduct our Phase III trials, including our currently planned Phase III trial of DG031. We will rely on these third parties to provide us with clinical material for the trial and various services necessary to organize and conduct a multi-center, multinational study, as well as other goods and services. We have not entered into contracts for all goods and services required for the Phase III trial of DG031 at this time. Our arrangement for this and other Phase III trials will be subject to risks described below, with respect to our collaborative relationships.

If our collaborations are not successful or if we are not able to manage multiple collaborations successfully, our programs may 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 may form collaborative relationships that will, in some cases, make us dependent on collaborators for the pre-clinical studies and/or clinical trials and for regulatory approval of any products that we are developing. Failure of such collaborators to perform under these agreements in a timely manner, or at all, may lead to delays in our product development. In some cases, our agreements with collaborators typically allow them significant discretion in electing whether and how to

pursue such activities. We cannot control the amount and timing of resources collaborators will devote to these programs or potential 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 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 or develop drugs based on such discoveries 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 our competitors, including cases where the competing drugs use the same mechanism of action as our products. 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. 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 the conduct of 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. 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.

Even if a product is approved for marketing, it 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.

***Third party reimbursement and health care reform policies 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 products, 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.

While we require employees, business partners, 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 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;

- we will develop additional proprietary technologies that are patentable;
- 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
- 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 may be adversely affected.

In addition, patent law relating to the scope of claims in the area of genetics and gene discovery is still evolving and subject to uncertainty, including in areas important to us such as patenting of discoveries for the development of therapeutic methods, diagnostic methods and products that predict inherited susceptibility to diseases and diagnostic methods and products that predict drug response and disease progression. 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 to enforce our own patents against potential infringers.

Others may have filed and in the future are likely to file patent applications covering products or technology that are similar or identical to our products and technology. In addition, others may develop competitive products outside the protection that may be afforded by the claims of our patents. 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 have adopted.

***Our patent protection for DG031 may provide marketing exclusivity 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 specific uses of 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 and equivalent foreign statutes, 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.

***Any patent protection we obtain for our products may not prevent marketing of similar competing products.***

Patents on our products may not prevent our competitors from designing around and developing similar compounds or compounds with similar modes of action that may compete successfully with our products. Such third party compounds may prove to be superior to our products or gain wider market acceptance and thus adversely affect any revenue stream that we could otherwise expect from sales of our products.

***Any patents we obtain may be challenged by producers of generic drugs.***

Patents on new drugs, which are also commonly referred to as “branded drugs” or “pioneer drugs,” face increased scrutiny and challenges in the courts from manufacturers of generic drugs who may receive benefits such as limited marketing co-exclusivity if the challenge is successful. Such patent challenges typically occur when the generic manufacturer files an Abbreviated New Drug Application with the FDA and asserts that the patent or patents covering the branded drug are invalid or unenforceable, forcing the owner or licensee of the branded drug to file suit for patent infringement. If any patents we obtain are subject to such successful patent challenges, our marketing exclusivity may be eliminated or reduced in time, which would thus adversely affect any revenue stream that we could otherwise expect from sales of our products.

**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. As of December 31, 2004, there are 47 years remaining on the ground lease. Furthermore, we own a total of 31,000 square feet in a building at Krokahals 5, Reykjavik, to house additional laboratory facilities and storage including Encode’s operation.

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 a 19,000 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 finance.

**Item 3. *Legal Proceedings***

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 in connection with deCODE’s initial public offering 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 individuals who were executive officers of deCODE at the time of its initial public offering (the “Individual Defendants”), and the two lead underwriters (the “Underwriter Defendants”) for our initial public offering in July 2000 (the “IPO”) as defendants.

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 United States District 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.

On July 31, 2003, our Board of Directors (other than our Chairman and Chief Executive Officer, who recused himself because he was an Individual Defendant) approved a proposed partial settlement with the plaintiffs in this matter, 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. Any direct financial impact of the proposed settlement is expected to be borne by deCODE's insurers.

In conjunction with the plaintiffs, the settling issuer defendants filed a motion seeking the court's preliminary approval of the settlement. On February 15, 2005, the court granted the motion, subject to certain modifications. The parties are directed to report back to the court regarding the modifications. If the parties are able to agree upon the required modifications, and such modifications are acceptable to the court, notice will be given to all class members of the settlement and a "fairness" hearing will be held. If the court determines that the settlement is fair to the class members, the settlement will be approved. There can be no assurance that this proposed settlement will be approved and implemented in its current form, if at all. If the settlement of the IPO litigation is not consummated, deCODE expects to contest the allegations in the action vigorously. Due to the inherent uncertainties of litigation and because the settlement approval process is at a preliminary stage, we cannot predict the ultimate outcome of this matter.

In an unrelated matter, subsequent to our Form 8-K filing on August 26, 2004 relating to our change in auditors, five complaints were filed in September and October 2004 in the United States District Court for the Southern District of New York against us and our Chief Executive Officer and Chief Financial Officer alleging violations of federal securities laws arising from certain of our public statements. The complaints are brought by plaintiffs seeking to represent a purported class consisting of all persons who purchased our common stock during the period from October 29, 2003 through August 26, 2004 and contend that we made misleading statements, misrepresentations and omissions regarding our financial performance, compliance with generally accepted accounting principles and our internal controls. The complaints all arise out of the same alleged statements, and have been consolidated before a single Judge. The plaintiffs seek unspecified monetary damages and other relief. We believe that these actions are without merit and intend to defend against them vigorously.

On September 14, 2004, a complaint was filed in the United States District Court for the Southern District of New York in a derivative action against deCODE, its directors and specified officers. Based upon the same misstatements and omissions alleged in the above-described securities complaints, the complaint alleges violations of state law by the defendants including breaches of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets and unjust enrichment. The complaint seeks unspecified monetary damages and other relief. We believe that this action is without merit and intend to defend against it vigorously.

Due to the inherent uncertainties of litigation, the early stage of the new securities matters, and the fact that the settlement of the litigation relating to our IPO remains subject to court approval, the ultimate outcome of these matters cannot be predicted. If deCODE were required to pay significant

monetary damages in the event that the IPO settlement is unconsummated or as a result of an adverse determination in the other actions described above (or any other lawsuits alleging similar claims filed against deCODE and deCODE's directors and officers in the future), deCODE's business could be significantly harmed. Even if such litigations conclude in deCODE's favor, deCODE may be required to expend significant funds to defend against the allegations. deCODE is unable to estimate the range of possible loss from the above litigations and no amounts have been provided for such matters in deCODE's financial statements.

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

On October 7, 2004, 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 III Directors

<u>NAME</u>	<u>FOR</u>	<u>WITHHELD</u>
Kari Stefansson . . . . .	43,356,143	280,380
Terrance G. McGuire . . . . .	43,405,985	230,538

2. Ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2004

<u>FOR</u>	<u>AGAINST</u>	<u>ABSTAIN</u>
43,596,940	21,833	17,750

## PART II

### Item 5. Market for the Company's Common Equity and Related Stockholder 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>
<b>2003</b>		
First Quarter . . . . .	\$ 3.25	\$1.70
Second Quarter . . . . .	\$ 3.95	\$1.78
Third Quarter . . . . .	\$ 5.41	\$2.45
Fourth Quarter . . . . .	\$ 9.74	\$4.61
<b>2004</b>		
First Quarter . . . . .	\$13.80	\$8.15
Second Quarter . . . . .	\$11.41	\$6.98
Third Quarter . . . . .	\$ 8.70	\$5.10
Fourth Quarter . . . . .	\$ 8.35	\$6.07

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 February 28, 2005, there were 4,660 holders of record of the Common Stock.

On February 25, 2004, we issued to Merck & Co., Inc. (i) 689,703 shares of our common stock for an aggregate purchase price of \$10,000,000 and (ii) a warrant to purchase 1,724,257 shares of our common stock at an exercise price of \$29.00 per share. The warrant may be exercised at the option of the holder at any time prior to its expiration on March 26, 2009. The offer and sale of these securities were exempt from registration under the Securities Act of 1933, as amended (the "Act") pursuant to Section 4(2) of the Act as a transaction not involving a public offering because of the nature of the purchaser and the circumstances of the offering. Appropriate legends restricting transfer were affixed to the certificates representing the common stock and the warrant.

On April 14, 2004, we issued \$150,000,000 principal amount of our 3.5% Senior Convertible Notes due 2011 (the "Notes") to Lehman Brothers Inc., J.P. Morgan Securities Inc., Piper Jaffray & Co., Deutsche Bank Securities and ThinkEquity Partners LLC (the "Initial Purchasers") for a price of 96.5% of the principal amount of the Notes, or \$144,750,000. The Initial Purchasers resold a portion of the Notes to certain qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended (the "Act").

The offer and sale of the Notes to the Initial Purchasers were exempt from registration under the Act pursuant to Section 4(2) of the Act as a transaction not involving a public offering because of the nature of the purchasers and the circumstances of the offering. The Initial Purchasers resold a portion of the Notes in reliance on Rule 144A under the Act. Each Initial Purchaser made representations to us as to its compliance with Rule 144A. In addition, appropriate legends restricting transfer were affixed to the Notes.

The Notes are convertible at any time through maturity into shares of our common stock, at the option of the holder, at a price of \$14.00 per share, which is equivalent to an initial conversion rate of approximately 71.43 shares per \$1,000 principal amount of the Notes.

## 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 with regard to the consolidated balance sheet at December 31, 2004 and the related statement of income and cash flow for the year ended December 31, 2004 has been derived from consolidated financial statements audited by Deloitte & Touche LLP, an independent registered public accounting firm. The following data with regard to the consolidated balance sheets at December 31, 2003, 2002, 2001 and 2000 and the related statements of income and cash flows for the four years ended December 31, 2003 has been derived from consolidated financial statements audited by PricewaterhouseCoopers LLP, independent registered public accounting firm. Consolidated balance sheets at December 31, 2004 and 2003 and the related statements of income and cash flows for each of the three years in the period ended December 31, 2004 and the notes thereto appear elsewhere in this annual report.

	For the Year Ended December 31,				
	2004	2003	2002	2001	2000
	(Tabular amounts in thousands, except share and per share amounts)				
Revenue . . . . .	\$ 42,127	\$ 46,811	\$ 41,065	\$ 26,099	\$ 21,545
Operating expenses					
Research and development, including cost of revenue . . . . .	68,349	63,466	89,612	70,954	45,742
Selling, general and administrative . . . . .	20,187	17,178	18,685	12,402	15,373
Impairment, employee termination and other charges(4) . . . . .	0	951	64,790	0	0
Total operating expenses . . . . .	88,536	81,595	173,087	83,356	61,115
Operating loss . . . . .	(46,409)	(34,784)	(132,022)	(57,257)	(39,570)
Interest income . . . . .	2,903	1,151	2,954	6,925	7,378
Interest expense . . . . .	(8,983)	(3,478)	(3,079)	(440)	(495)
Other non-operating income and (expense), net . . . . .	(4,766)	1,988	(72)	(1,675)	1,568
Loss before cumulative effect of change in accounting principle . . . . .	(57,255)	(35,123)	(132,219)	(52,447)	(31,119)
Cumulative effect of change in milestone revenue recognition method . . . . .	0	0	333	0	0
Net loss . . . . .	(57,255)	(35,123)	(131,886)	(52,447)	(31,119)
Accrued dividends and amortized discount on preferred stock(1) . . . . .	0	0	0	0	(7,541)
Net loss available to common stockholders(1) . . . . .	\$ (57,255)	\$ (35,123)	\$ (131,886)	\$ (52,447)	\$ (38,660)
Basic and diluted net loss per share:					
Loss before cumulative effect of change in accounting principle . . . . .	\$ (1.07)	\$ (0.68)	\$ (2.69)	\$ (1.26)	\$ (1.81)
Cumulative effect of change in milestone revenue recognition method . . . . .	0.00	0.00	0.01	0.00	0.00
Net loss . . . . .	\$ (1.07)	\$ (0.68)	\$ (2.68)	\$ (1.26)	\$ (1.81)

	For the Year Ended December 31,				
	2004	2003	2002	2001	2000
	(Tabular amounts in thousands, except share and per share amounts)				
Shares used in computing basic and diluted net loss per share(1) . . . . .	53,422,931	51,507,869	49,098,254	41,634,009	21,381,256
Pro forma amounts assuming new milestone revenue recognition method was applied retroactively:					
Revenue . . . . .				\$ 23,182	\$ 22,670
Net Loss . . . . .				(55,364)	(29,994)
Basic and diluted net loss per share . . . . .				(1.33)	(1.40)

	As of December 31,				
	2004	2003	2002	2001	2000
	(In thousands)				
Cash and cash equivalents . . . . .	\$ 70,238	\$ 68,669	\$ 87,244	\$153,061	\$194,145
Total assets(2)(3) . . . . .	288,252	183,475	213,417	249,900	248,901
Total long-term liabilities . . . . .	197,950	49,874	56,533	44,428	3,519
Total stockholders' equity (1)(2)(3) . . . . .	52,396	93,407	125,246	170,733	216,269

- (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) 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.
- (3) 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, 2004 and for each of the three years in the period 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**

deCODE is a biopharmaceutical company applying its discoveries in human genetics to develop drugs for common diseases. Our population approach and resources enable us to isolate genes and drug targets directly involved in the development of many of the biggest challenges to public health. We are turning these discoveries into a growing pipeline of therapeutics aimed at combating the causes of disease, not just the signs and symptoms. As these diseases are common and current therapies are of limited effectiveness, we believe that our strategy represents a significant opportunity to create better medicine with major potential in the global marketplace.

We believe that deCODE's advantage derives from our population approach to human genetics and the ability to apply this approach across the drug development process. 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 common diseases. The proteins encoded by these genes, and other proteins with which they interact in the disease pathway, offer drug targets that are directly involved in the onset and progression of disease. Small-molecule drugs that target these proteins therefore represent a direct means of modulating the onset or progression of the disease.

Our goal is to bring to market new drugs for major indications, and in so doing make the company profitable and create value for our shareholders. To achieve this goal we must ensure that we have the capabilities and financial means to expand and advance our pipeline through the long, risky and expensive process of drug development and on to the market. This requires us to constantly evaluate the optimal balance between several factors, including the level of our investment in research and development, the preservation of cash resources and their deployment for product development, and the financing environment.

In order to support our drug development infrastructure, to focus the use of our cash resources on our proprietary therapeutics programs, and to diversify risk in our overall drug development portfolio, we leverage our capabilities to form corporate alliances and to provide services to fee-paying customers. We have formed drug and other product development alliances with Roche and Merck, among others. In addition to conducting work on our targets in our collaborative and internal programs, our medicinal chemistry subsidiary provides drug discovery services and contract manufacturing of therapeutic compounds for human clinical trials for our fee-for-service customers. Our other service offerings include protein crystallization products, protein crystallization instruments and protein structure analysis contract services through our structural biology subsidiary; clinical trials services through our wholly owned subsidiary Encode; and DNA analysis services through our genotyping laboratory in Reykjavik.

We currently derive revenues primarily from research funding and other fees from our service customers and collaborative partners; milestone payments and upfront, exclusivity, technology-access and technology-development fees under our collaboration agreements constitute most of the rest of our revenues. 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 do not expect to do so for several years, if at all. Our expenses consist primarily of research and development expenses.

We believe that advancing our drug development programs, particularly the conduct of clinical trials on a growing number of our compounds, will require significant and increasing expenditures. In 2005 we anticipate that we will be conducting clinical trials for DG031, DG041, and in asthma. We also expect to be advancing our preclinical work on our follow-on compound in heart attack and in our PDE4 inhibitor program for vascular disease/stroke, and expect to bring these programs into clinical development following the submission of IND applications. We anticipate incurring additional net losses at least through the next several years, due to, in addition to 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.

Following our sale of \$150,000,000 of our 3.5% Senior Convertible Notes in April, 2004, we believe that we have sufficient cash resources to continue to fund our operations for several years. However, we will require significant additional capital in the future for our product development programs and so will continue to investigate additional avenues of financing. Our ability to obtain capital will be affected by conditions in the global financial markets and in the pharmaceutical industry. We expect that downturns in the market valuations of biotechnology companies and of the equity markets more

generally will restrict our ability to raise additional capital on attractive terms, while more favorable conditions in those markets will present opportunities for us.

The difficulties facing the pharmaceutical industry present for us both near-term challenges and significant longer-term opportunities. One of the main issues confronting big pharmaceutical companies is their lack of promising 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 up-front 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 alone or as partners of pharmaceutical companies. Our partnerships with Roche and Merck demonstrate that the industry is already investing in the development of new therapeutics based on our approach.

### **Acquisitions and in-licensing**

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.

In certain programs we have taken advantage of the fact that drug targets we have identified through our genetics research have already been employed by other companies to make developmental compounds for other indications. By licensing these compounds or entering into co-development arrangements we have been able to leapfrog over several years of drug discovery, entering directly into Phase II clinical trials. In 2004 we successfully completed a Phase IIa clinical trial for DG031, the compound we licensed from Bayer HealthCare AG and which we are developing for the prevention of heart attack. In 2004 we entered into an agreement with another company to conduct a Phase II trial in 2005 for a compound developed originally for a different indication. We continue to investigate additional such possibilities for the in-licensing or co-development of promising existing compounds that may effectively act against targets we have identified through our gene discovery work.

On March 18, 2002, we acquired MediChem Life Sciences, Inc. in a stock-for-stock exchange accounted for as a purchase transaction. The total consideration for the acquisition was \$85.9 million. 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 maintain the infrastructure for conducting drug discovery work on several programs at once. Our statements of operations include the results of MediChem from the date of acquisition.

### **Research and Development Programs**

The following is a summary of the development of our drug candidates in late pre-clinical or clinical development. Because of uncertainties involved in the drug development process, the actual timing for the events described below may differ materially from that provided in this summary.

- Our most advanced developmental compound is DGO31 for the prevention of heart attack. In 2004 we conducted a Phase IIa clinical trial for DG031 in Iceland. We have submitted an IND

for DG031 with the U.S. Food and Drug Administration (FDA) and expect to make similar filings in selected European countries. Based on the results of the Phase IIa trial and pending FDA approval, we expect to begin a Phase III outcome trial in the U.S., Iceland and Europe for DG031 in the third quarter of 2005.

- DG041 is our lead compound for the treatment of atherosclerosis of the legs, or peripheral arterial occlusive disease (PAOD). DG041 is an inhibitor of a G-protein coupled receptor (GPCR) which our genetics work has shown to be associated with a significantly increased risk of developing the disease. Our IND application for DG041 was accepted by the FDA in February 2005 and on this basis we began the first Phase 1 trial for this compound in the U.S. in March of 2005. We expect the trial will be of 4-8 weeks duration.
- In asthma, we expect to commence a Phase II trial in Iceland with a third party compound in the first half of 2005. This compound acts against a target our genetics work has shown to be involved in the development of asthma.
- We are developing a follow-on compound for DG031 that is designed to inhibit the LTA4 hydrolase, a protein encoded by a second gene within the same pathway targeted by DG031 that we have also linked to significantly increased risk of heart attack.
- We have begun a PDE4 inhibitor program for vascular disease/stroke pursuant to our 2004 agreement with Roche.

We use many of our employee and infrastructure resources across several programs, and many of our research and development costs are indirectly attributable to an individually named program or are directed broadly to applicable research programs. However, taking into account costs that are specifically attributable to individual programs and allocations of our research and development program costs based upon those direct costs in 2003 and 2004, we have cumulatively invested \$6.1, \$6.4, \$3.0 and \$4.2 million in our MI, PAOD, stroke and asthma programs, respectively, from the beginning of 2003 to year-end 2004. Inception to-date costs are not available as these costs were not historically tracked by program.

We have not applied for or received marketing approval from the applicable regulatory authorities in any country for any of our drug candidates. In order for us to achieve marketing approval in the U.S., the FDA must conclude that our clinical data establish the safety and efficacy of our drug candidate. Other countries have similar requirements. Historically, the results from pre-clinical testing and early clinical trials (through Phase II) have often not been predictive of results obtained in later clinical trials. Many new compounds have shown promising results in early clinical trials, but subsequently failed to establish sufficient safety and efficacy data to obtain necessary marketing approvals. Additional risks and uncertainties involved in the development and commercialization of any products are described further in Item 1 above. We expect that it will be several years, if ever, before we receive revenues from the commercial sale of our therapeutic products.

Furthermore, our strategy includes the option of entering into collaborative arrangements with third parties to participate in the development and commercialization of our products, such as our collaboration agreements with Roche and Merck. Entering into a collaboration with a partner at any point in the development or commercialization of a product is a business decision of ours. When making this decision we do and will consider, among other matters, the complexity of the indication, the size, complexity and expense of necessary development and/or commercialization efforts, the nature and size of the applicable market, an assessment of our own resources—financial and operational, and an assessment of the resources of a potential partner. In the event that we do collaborate on any of the above programs in the future, a partner will have a level of control, which may be significant, over the pre-clinical development or clinical trial process for a product. As a result the completion date of such a partnered program could largely be under control of that third party rather than under our control. We cannot forecast with any degree of certainty which proprietary drug candidate will be subject to future collaborative arrangements or how such arrangements would affect our development plan or capital requirements.

As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will receive cash inflows from the commercialization and sale of a product.

### **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. 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. Our 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 of 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.* In arrangements with multiple elements entered into before June 15, 2003 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, we recognize revenue using the substantive milestone method. 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 we recognize revenue when acknowledgement of achievement of applicable performance requirements is received from the collaborator. Milestone payments without the above characteristics are recognized on a retrospective basis over the contractual term of the underlying agreement.

In arrangements with multiple elements entered into after June 15, 2003, if the milestone is substantive in nature and there is uncertainty in the achievement of the milestone and there is no further obligation on our part, we record revenue when the milestone has been achieved and payment is due and payable under the terms of the respective agreement and we recognize revenue when acknowledgement of achievement of applicable performance requirements is received from the collaborator ("Milestone Payment Method"). If the milestone is earned and we have no further obligation under the contract for performance, then we will record revenue when the milestone has been achieved and payment is due and payable under the terms of the respective agreement and we retroactively recognize revenue through the current period based on the total contractual term and amortizes the balance over the remaining contractual term.

- *Up-front, exclusivity, technology access, and technology development fees.* We recognize 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 our 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.

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.

*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 goodwill, property, intangibles and equipment amounting to \$60.9 million for the year-ended December 31, 2002. There were no events in 2004 and 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 light of experience and the current technological environment, in 2004 we changed certain of our salvage value and useful life estimates for equipment and furniture and fixtures for purposes of depreciation. These changes in estimates had the effect in increasing depreciation expense in 2004 by \$2.2 million. Should we determine that the pace of technological change or other matters dictate that we change the service lives or other estimates inherent in determining the carrying-values of our long-lived 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 \$0.1 million, \$0.8 million and \$3.4 million for the years ended December 31, 2004, 2003 and 2002, respectively. In 2004 and 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 operating expenses by \$1.4 million and \$0.8 million, respectively.
- *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. 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. 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.

The net impact of foreign exchange on the translated amount of our non-US dollar denominated liabilities, net together with transaction gains and losses, amounted to losses of \$3.3 million for the year-ended December 31, 2004. The continued weakening of the U.S. dollar compared to the Icelandic krona during 2004 has been significant and these currency fluctuations may continue to adversely affect our financial results.

- *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, 2004, 2003 and 2002**

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, 2004 include:

- At the close of 2004, we had \$198.3 million in cash and investments. This includes restricted cash and investments (\$128.1 million), and reflects the net proceeds from our \$150 million convertible notes issue completed in April 2004.
- Research and development expense for proprietary programs was \$24.9 million for the year-ended December 31, 2004 as compared to \$17.6 million and \$40.9 million for the years ended December 31, 2003 and 2002, respectively. The increase in 2004 as compared to 2003 is the result principally of costs associated with our recently completed Phase IIa trial of DG031; preparations for planned upcoming clinical trials of DG031 and of DG041; and the effect of the one-time, non-cash reversal of accrued license fees in 2003.
- Our revenue for the year ended December 31, 2004 was \$42.1 million, as compared to \$46.8 million and \$41.1 million for the years ended December 31, 2003 and 2002, respectively. These revenues reflect the gradual redeployment of development capabilities from service partnerships to development of new drugs, as well as variability in the amount and timing of milestone and other payments related to our product development alliances. Importantly, our ability to generate revenue enables us to offset a portion of the cost of our investment in R&D, including expenses related to the clinical development of our lead compounds.
- Our cost of revenue, including costs incurred in connection with collaborative programs, decreased to \$43.4 million for the year-ended December 31, 2004 as compared to \$45.9 million and \$48.7 million for the years-ended December 31, 2003 and 2002, respectively. The decreases result mainly from the streamlining and automation of our core genetics research and operations. Our cost of revenue consists of the costs of services provided to customers and collaborators, including the entirety of costs incurred in connection with programs that have been partnered and on which we receive research funding. At times, we may dedicate additional resources and incur costs in addition to costs covered by research funding received in such collaborative programs.

*Revenue.* Our business strategy is focused on turning our discoveries into new drugs for the treatment of common diseases. At the same time, we leverage our capabilities to generate revenue through corporate alliances and through service contracts. In the majority of our programs we are pursuing drug development on our own. In certain 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, commercialization, and fee for service alliances and contracts across our business. Depending on the nature of each prospective business opportunity, the key components of the commercial terms of such arrangements typically include one or more of the following: research funding; up-front, exclusivity, technology access, and technology development fees; fees for particular services; 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:

	<b>For the Year Ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	(In thousands)		
Research funding and service fees . . . . .	\$33,755	\$35,718	\$36,641
Milestone payments . . . . .	1,835	5,794	1,462
Up-front, exclusivity, technology access, and technology development fees	4,116	4,000	2,500
Other . . . . .	2,421	1,299	462
	<u>\$42,127</u>	<u>\$46,811</u>	<u>\$41,065</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, 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. During 2004 we collaborated with Roche on two of those diseases. Under the 2002 agreement, which expired on February 1, 2005, we received \$20 million in research funding and we are entitled to receive royalties on the sales of any drugs that are developed coming out of work conducted under this agreement.

In November 2004, we signed a new three-year agreement with Roche to co-develop inhibitors of PDE4 for the prevention and treatment of vascular disease, including stroke. This agreement continues work advanced under the 2002 agreement, and we will focus on optimizing lead compounds identified under the previous agreement and beginning clinical development. We and Roche will share drug discovery and clinical trials costs under this new agreement, and we may receive milestone payments and royalties based on drug sales.

*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 \$34,875,000 in research funding, up-front fees and milestone payments. We may receive \$9,375,000 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 \$12.6 million \$19.9 million, and \$16.9 million for the years ended December 31, 2004, 2003 and 2002, respectively. Costs incurred in connection with these collaborative programs with Roche amounted to \$19.5 million and \$19.6 million for the years ended December 31, 2004 and 2003, respectively. Costs incurred in connection with these collaborative programs for 2002 are not available as these costs were not historically tracked by program prior to 2003.

*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 \$21,877,850 and may receive research funding and technology access in the future of \$5,250,000. 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 30 days' notice in the event that the research program fails to achieve certain specified goals. As of the end of 2004, we had discovered three genes lined to obesity under this alliance, and Merck had generated lead series of compounds against one of the targets we have validated through our genetics research.

Revenues from this alliance with Merck amounted to \$7.8 million, \$8.5 million, and \$1.6 million for the years ended December 31, 2004, 2003 and 2002, respectively. Costs incurred in connection with this alliance with Merck amounted to \$4.6 million and \$5.2 million for the years ended December 31, 2004 and 2003, respectively. Costs incurred in connection with these collaborative programs for 2002 are not available as these costs were not historically tracked by program prior to 2003.

*Information Rich Clinical Trials.* In February 2004, we entered into an agreement with Merck which provides that we will conduct information-rich clinical trials on a range of Merck's developmental compounds that Merck selects for inclusion in the program. The term of the alliance is seven years, subject to termination by Merck after five years. Under the terms of the agreement, we will receive royalties on sales of drugs and diagnostics developed as part of the alliance. The collaboration involved three agreements: (a) a License and Research Collaboration Agreement; (b) a Stock and Warrant Purchase Agreement; and (c) a Warrant Agreement. Under the terms of the License and Research Collaboration Agreement, deCODE will receive royalties on sales of drugs and diagnostics developed as part of the alliance, will receive milestone payments as compounds or pharmacogenomic tests reach the market, will receive research funding for the clinical development of compounds and pharmacogenomic analysis, and received a one-time technology access fee of \$10.0 million. There is a contingency clause on the technology access fee provides that if we reject the first two non-exclusive development compounds that Merck presents to the collaboration, then Merck has the right to request a refund of \$2.5 million of the technology access fee. The remaining amount of the technology access fee is non-refundable. To date, Merck has not selected any compounds for development under the agreement. Under the terms of the Stock and Warrant Purchase Agreement, Merck purchased 689,703 shares of our common stock at a price of \$14.50 per share or \$10 million, which represents a premium of \$2.7 million to the fair market value of the stock on the effective date of the agreements (\$10.60 per share). Accordingly, of the \$10 million cash received, we have ascribed \$7.3 million to the common stock and \$2.7 million to deferred revenue. Under the terms of the Warrant Agreement, we have issued Merck a warrant to purchase up to 1,724,257 of additional shares of our common stock at an exercise price of \$29.00 per share over the five year term of the warrant. The warrant is exercisable at Merck's option as to 344,851 shares for a period of 30 days commencing on the first, second, third, fourth and fifth anniversaries of the Warrant Agreement with the final portion of warrants expiring in March 2009. Any portion of this warrant that is not exercised during an applicable exercise period shall expire and be of no further force or effect. The warrant was valued at \$6.3 million using a Black Scholes model with the following assumptions: lives of one to five years, risk free interest rates of 1.24% to 3.07%, volatility of 90% and no dividend yield. The one-time technology access fee of \$10 million and the \$2.7 million premium received on the sale of common stock less the estimated fair value of the warrant of \$6.3 million, together netting to \$6.4 million, has been deferred and the \$6.4 million net amount was recorded as deferred revenue and is being recognized as revenue according to level of efforts over the seven-year development term.

Revenues and costs incurred in connection with this alliance with Merck amounted to \$0.8 million and \$1.3 million, respectively, for the year ended December 31, 2004.

*National Institute of Allergy and Infectious Diseases (NIAID).*

In September 2004, we were awarded a five-year \$23.9 million contract by the NIAID, part of the U.S. National Institutes of Health. Under the contract, we will apply our population approach and resources to discover genetic factors associated with susceptibility to certain infectious diseases and with responsiveness to vaccines targeting such diseases. The University of New Mexico will be working with us to conduct functional validation of biological pathways discovered through our genetic research. The National Center for Genome Resources will provide bioinformatics resources to make study information and results available to the scientific community. We expect that we will expend funds generally ratably over the five-year term of the contract beginning with 2005.

*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, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Revenue .....	\$42,127	\$46,811	\$41,065	\$(4,684)	(10)%	\$5,746	14%

The decrease in revenue in 2004 is reflective of the gradual transition of our business from the generation of near-term revenue through service partnerships to a focus on the development of new drugs in major indications, as well as the variability in the amount and timing of milestone and other payments related to our product development alliances. The 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. At the close of the year we had \$15.9 million in deferred revenue, compared to \$14.0 million at the close of the 2003. This increase reflects cash received related to the 2004 alliance with Merck, which will be recognized, along with other deferred revenue, over future reporting periods. 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.

*Cost of Revenue, including Collaborative Programs.* Cost of revenue, including costs incurred in connection with collaborative programs for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Cost of Revenue, Including Collaborative Programs .....	\$43,407	\$45,870	\$48,713	\$(2,463)	(5)%	\$(2,843)	(6)%

The decreases in our cost of revenue, including costs incurred in connection with collaborative programs generally reflect the streamlining and automation of our core genetics research and other operations. Our cost of revenue consists of the costs of services provided to customers and collaborators, including the entirety of costs incurred in connection with programs that have been partnered and on which we receive research funding. At times, we may invest in addition to costs covered by research funding received in such collaborative programs.

Our cost of revenue, including costs incurred in connection with collaborative programs in 2004 as compared to 2003 includes (i) an overall decrease in salary and employee related expenses (\$2.0 million) driving (ii) lower allocation of overheads, depreciation and amortization (\$1.7 million), together with (iii) a relative net benefit of \$0.5 million resulting from chemicals and consumables we used for which there was relatively little or no attendant cost as a result of prior provisions we had

made as slow moving, excess or obsolete according to our accounting policy, (iv) increases in outside contractor services (\$1.6 million), and (v) more in chemicals and consumables (\$0.6 million). The relative strengthening of the Icelandic krona versus the U.S. dollar over the periods presented has appreciably affected the U.S. dollar reported amounts of our expenses denominated in Icelandic krona (e.g., an increase of approximately \$1.2 million on a portion of our salary and employee related expenses) and may continue to do so.

Our 2003 cost of revenue, including costs incurred in connection with collaborative programs, reflects spending related to the range of our disease-gene research programs together with the impact of the measures we implemented late in 2002, taking advantage of investments in automation in our disease-gene research programs. The decrease in 2003 as compared to 2002 is principally attributable to (i) increased salaries and employee related expenses (\$1.3 million), driving (ii) increased allocation of depreciation and amortization (\$1.7 million), together with (iii) less in chemicals and consumables used (\$3.3 million), and (iv) lower costs of contractor services (\$1.8 million).

*Research and Development—Proprietary Programs.* Research and development for proprietary programs for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
				(In thousands, except %)			
Research and Development—							
Proprietary Programs . . . . .	\$24,942	\$17,596	\$40,899	\$7,346	42%	\$(23,303)	(57)%

The changes our research and development expenses in proprietary programs over the years presented reflect the streamlining and automation of the our core genetics research operations but also our emphasis on and increasing expenditures in product development clinical work and pre-clinical preparations on our lead development programs. Importantly, during 2004 we conducted and completed our Phase IIa clinical trial of DG031, which is being developed for the prevention of heart attack. Based on the results of this trial, which we announced in October 2004, we are designing an information-rich, multicenter Phase III trial to test DG031 for the prevention of heart attack. During 2004 we have also incurred costs in preparing for planned upcoming clinical studies of DGO41.

Our research and development costs for proprietary programs in 2004 as compared to 2003 include (i) an increase of \$1.6 million in salaries and related costs largely related to costs associated with our Phase IIa trial of DG031 and preclinical work for DG041 (ii) \$1.4 million related to increased usage of other chemicals and consumables mainly in our genotyping facility, both factors driving (iii) increased allocation of depreciation and amortization (\$1.2 million), together with (iv) \$0.4 million more of outside services mostly on account of our DG041 program, offset somewhat by (v) a relative net benefit of \$0.4 million resulting from chemicals and consumables we used for which there was relatively little or no attendant cost as a result of prior provisions we had made as slow moving, excess or obsolete according to our accounting policy. Our research and development expenses for 2003 also reflect net benefit of \$3.2 million resulting from a reversal of accrued database license fees in that year.

Experienced increases in the research and developments costs of our proprietary programs (e.g., salaries and attendant costs, usage of chemicals and consumables) will likely continue, particularly as we advance our clinical development and proprietary drug development programs. Further, the relative strengthening of the Icelandic krona versus the U.S. dollar over the periods presented has appreciably affected the U.S. dollar reported amounts of our expenses denominated in Icelandic krona (e.g., an increase of approximately \$0.8 million on a portion of our salary and employee related expenses) and may continue to do so.

Our 2003 research and development for proprietary programs reflects spending related to the range of our disease-gene research programs, including product development and downstream work on targets already identified. The significant decreases in 2003 as compared to 2002 stem from 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 (i) our usage of chemicals and consumables (\$6.7 million), (ii) salary and related expenses (\$5.8 million), (iii) depreciation and amortization (\$2.0), (iv) costs related to our clinical collaborations (\$1.5 million), and (v) our research and development property-related and other overheads (\$2.2 million). Our research and development expenses for 2003 as compared to 2002 also reflect a relative net benefit of \$4.0 million resulting from a reversal of accrued database license fees.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
(In thousands, except %)							
Selling, General and Administrative . . . .	\$20,187	\$17,178	\$18,685	\$3,009	18%	\$(1,507)	(8)%

Our selling, general and administrative expenses for 2004 have increased, notably including (i) increased salaries and employee related costs (\$0.7m), (ii) employee incentives (\$1.4 million), (iii) severance costs (\$0.6 million), (iv) greater travel and overhead expenses (\$0.7m), (v) recruiting fees related to the addition of new members to our Board of Directors and also our efforts to hire necessary clinical development and regulatory staff (\$0.4 million), (vi) an accrual for probable losses related to grant monies received in pre-acquisition periods of MediChem (\$0.4 million), together with (vii) lower stock-based compensation (\$1.1 million).

The 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 increases in our outside auditing expenses (\$0.4 million) and in our director's and officer's insurance premiums (\$0.5 million).

Several of the above-noted items are likely irregular in their occurrence. Other of the experienced increases in our selling, general and administrative expenses may likely continue. In particular, we have granted salary increases and bonuses in 2004 and are actively seeking to add critical staff. Further the relative strengthening of the Icelandic krona versus the U.S. dollar over the periods presented has appreciably affected the U.S. dollar reported amounts of our general and administrative expenses denominated in Icelandic krona (e.g., an increase of approximately \$0.3 million on a portion of our salary and employee related expenses) and may continue to do so.

*Stock Based Compensation and Remuneration Expense.* Stock based compensation and remuneration expense for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
(In thousands, except %)							
Stock Based Compensation and Remuneration Expense . . . . .	\$1,171	\$2,440	\$3,048	\$(1,269)	(52)%	\$(608)	(20)%

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 required change to the fair value method.

FASB No. 123(R) replaces FASB Statement No. 123 and supersedes APB Opinion No. 25 and eliminates the ability to account for employee share-based compensation transactions using the intrinsic method. FASB No. 123(R) requires such transactions be accounted for using a fair-value-based method that would result in additional expense being recognized in our financial statements. We will be required to adopt FASB No. 123(R) in the third quarter of 2005 and, although we have not yet determined the impact of its adoption on our consolidated financial position or results of operations, the charges involved could be significant.

*Impairment, Employee Termination Benefits and Other Costs.* Impairment, employee termination benefits and other costs for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Impairment, Employee Termination							
Benefits and Other Costs . . . . .	\$ 0	\$ 951	\$64,790	\$ (951)	(100)%	\$(63,839)	(99)%

In September 2002, we implemented a cost reduction program and, 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 and, as a result, we recorded impairment, employee termination benefits and other charges amounting to \$64.8 million during the year-ended December 31, 2002.

During the year ended December 31, 2003, we recorded \$951,000 of additional employee terminations benefits related to 61 employees. There were no benefits obligations remaining as of December 31, 2004.

*Interest Income.* Interest income for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
	(In thousands, except %)						
Interest Income . . . . .	\$2,903	\$1,151	\$2,954	\$1,752	152%	\$(1,803)	(61)%

Our interest income has increased mainly as a result of the completion of the offering of 3.5% Senior Convertible Notes in April 2004, realizing net proceeds of \$143.8 million. We expect to use the proceeds of this offering principally for advancing our drug and clinical development programs. In the meantime, we will invest the monies received in accordance with our policy, having the objective of preserving principal while maximizing income we receive from our investments without significantly increasing risk. We expect to maintain our portfolio of cash equivalents and investments in a variety of securities, including auction rate securities, commercial paper, money market funds, mutual fund investments and government and non-government debt securities

*Interest Expense.* Interest expense for the years ended December 31, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
				(In thousands, except %)			
Interest Expense . . . . .	\$8,983	\$3,478	\$3,079	\$5,505	158%	\$399	13%

The increase in our interest expense principally reflect interest on our 3.5% Senior Convertible Notes due 2011 that we issued in April 2004. We began making the necessary semi-annual interest payments on the Senior Convertible Notes in October 2004. As a result of the Senior Convertible Notes, our interest expense has increased \$5.3 million on an annualized basis.

*Other Non-Operating Income and Expense, Net.* Other non-operating income and expense for the years ended December 31, 2004, 2003 and 2002 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 . . . . .	\$(4,766)	\$1,988	\$(72)	\$(6,754)	(340)%	\$2,060	2,861%

Our other non-operating income and expense, net consists principally of the net impact of foreign exchange and unrealized and realized swap gains and losses.

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. The net impact of foreign exchange on the translated amount of our non-US dollar denominated liabilities, net together with transaction gains and losses, amounted to losses of \$3.3 million, \$0.1 million and \$0.7 million for the years ended December 31, 2004, 2003 and 2002, respectively. The continued weakening of the U.S. dollar compared to the Icelandic krona during 2004 has been significant and these currency fluctuations may continue to adversely affect our financial results.

Our swap gains and losses stem from the two cross-currency swaps we entered into as economic hedges against foreign exchange rate fluctuations that may have occurred on our foreign currency debt but that did not qualify for hedge accounting. Our other non-operating income and expense, net includes unrealized swap gains of \$4.8 million and \$6.4 million for the years ended December 31, 2003 and 2002, respectively. In March 2004, we liquidated our two cross-currency swaps receiving \$9.7 million in proceeds. We realized a loss on this early termination that, together with unrealized losses on the swaps during the year ended December 31, 2004, amounted to a \$1.5 million loss.

*Income Taxes.* As of December 31, 2004, we had an accumulated deficit of \$387.5 million and did not owe any Icelandic or U.S. federal income taxes nor did we pay any in the years ended December 31, 2004, 2003 or 2002. Realization of deferred tax assets is dependent on future earnings, if any. As of December 31, 2004, we had net operating losses able to be carried forward for U.S. federal income tax purposes of approximately \$45.4 million to offset future taxable income in the United States that expire at various dates through 2024. Also, as of December 31, 2004 our foreign subsidiaries had net operating loss carryforwards of approximately \$209.6 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, 2004, 2003 and 2002 are as follows:

	2004	2003	2002	2004 as Compared to 2003		2003 as Compared to 2002	
				\$ Change	% Change	\$ Change	% Change
				(In thousands, except %)			
Net Loss . . . . .	\$57,255	\$35,123	\$131,886	\$22,132	63%	\$(96,763)	(73)%
Basic and Diluted Net Loss Per Share .	\$ 1.07	\$ 0.68	\$ 2.68	\$ 0.39	57%	\$ (2.00)	(75)%

Net loss and basic and diluted net loss per share both increased in the year ended December 2004, principally on account of higher research and development related to the advancement of our drug development programs, lower revenues, higher interest expense related to our convertible notes issued in April 2004 and the impact, both realized and unrealized, of foreign exchange fluctuations. Decreases as compared to the year ended December 31, 2002 principally related to the impact of significant impairment, employee termination costs and other gains and other costs recorded in that year.

**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 (\$723 million from the beginning of 1999 to-date). Future funding under terms of our existing agreements is approximately \$67 million excluding milestone payments and royalties that we may earn under such collaborations.

Although we depend upon funded research arrangements for a significant portion of our revenue, we continue to invest in proprietary research and development and we will incur the costs of such activities. In the near term, this will require us to continue to devote resources to in our in-house drug and clinical 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, we expect to have greater overall net use of cash in 2005 in our operating, investing and financing activities than we did in 2004. Our cash requirements depend on numerous factors, including the level and timing of our research and development expenditures; our ability access the capital markets; 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; and capital expenditures at our facilities. Changes in our research and development plans, notably the entry into clinical trials of drugs 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.

We believe that we will have sufficient cash to fund our operations for several years. However, 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,		
	2004	2003	2002
	(In thousands)		
<b>Cash provided by (used in):</b>			
Operating activities . . . . .	\$(29,936)	\$(20,331)	\$(53,161)
Investing activities . . . . .	(124,653)	(792)	(13,355)
Financing activities . . . . .	156,158	2,548	699
Cash and cash equivalents, at end of period . . . . .	70,238	68,669	87,244

*Cash and Cash Equivalents.* At December 31, 2004, we had \$70.2 million in cash and cash equivalents. Together with our restricted cash and resources put into investments at December 31, 2004 (\$128.1 million), this balance is approximately \$123.6 million more than at the close of 2003. The increase reflects net proceeds from our convertible notes issue completed in April 2004 (\$143.8 million), equity and technology access fee payments received related to the signing of a new drug development alliance with Merck (\$20.0 million) and the liquidation of our two currency swaps (\$9.7 million) offset with capital expenditures (\$2.7 million), debt service (\$11.0 million) and costs associated with the advancement of our drug development programs as reflected in the \$29.9 million of cash we used in operating activities during 2004.

Available cash is invested in accordance with our investment policy's primary objectives of liquidity and safety of principal while maximizing the income we receive from our investments without significantly increasing risk. Our cash is deposited only with financial institutions in Iceland, the United Kingdom and the United States having a high credit standing (A-/A3 or better). We expect to maintain our portfolio of cash equivalents and investments in a variety of securities, including auction rate securities commercial paper, money market funds, mutual fund investments and government and non-government debt securities.

At December 31, 2004, our cash is largely invested in U.S. dollar denominated money market and checking accounts and also in Icelandic krona denominated accounts. At December 31, 2004, our investments are in auction rate securities, corporate bonds, mutual funds and a certificate of deposit with a remaining maturity of one month.

*Operating Activities.*

Net cash used in operating activities increased to \$29.9 million for the year-ended December 31, 2004 as compared to \$20.3 million for the year-ended December 31, 2003. Because of the \$6.4 million of the monies received by us in the Information Rich Clinical Trial alliance with Merck, in 2004 working capital provided \$5.9 million of funds as compared to a use \$1.0 million in 2003. As more fully described above, the increase in use of cash in operating activities primarily derives from research and development investments being made in advancing our drug and clinical development programs.

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 was as a result of our increased revenue base and the impacts of the cost reduction measures we implemented late in 2002. 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. We principally made replacement capital expenditures during the years-ended December 31, 2004 and 2003 and did invest in certain equipment for our statistical and other laboratories during 2004. Although we expect we will continue to make principally replacement capital expenditures in the near-term, 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 as well as changing business needs.

Purchases of property and equipment during the year ended December 31, 2004 were \$2.7 million as compared to \$0.9 million and \$15.6 million in the years ended December 31, 2003 and 2002, respectively; the 2002 purchases being primarily due to the expansion of our facilities and operations. We principally made replacement capital expenditures during 2004 and 2003.

Investments during the year-ended December 31, 2004 consist mainly of auction rate securities, corporate bonds, mutual funds and certificates of deposit with maturities of up to seven months.

#### *Financing Activities.*

Net cash of \$156.2 million was provided in financing activities in the year-ended December 31, 2004 as compared to \$2.5 million and \$0.7 million provided in financing activities in the years-ended December 31, 2003 and 2002, respectively. Financing activities for the year-ended December 31, 2004 largely consisted of the net proceeds from our convertible notes issue completed in April 2004 (\$143.8 million), the refinancing of our Tier C bonds and Tier D bank loan, equity proceeds and a portion of the up-front monies received by us in the Information Rich Clinical Trial alliance with Merck (\$13.6 million), proceeds in the liquidation of our two cross-currency swap (\$9.7 million) and installment payments on our existing debt and capital lease obligations (\$11.0 million). 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) which was extended in January 2004 for another 18 months, with the final payment due in June 2006, short-term borrowings (\$6.5 million) and installment payments on our debt and capital lease obligations (\$9.6 million). In the year 2002, we repaid the borrowings under a bridge loan 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, we repaid the existing mortgage on our Woodridge, IL discovery center (\$11.9 million) and re-financed the property, resulting in proceeds of \$5.8 million, and we made installment payments on our debt and capital lease obligations (\$9.1 million).

In April 2004, we completed an offering of 3.5% Senior Convertible Notes due 2011 to qualified institutional buyers. In addition to the \$125.0 million principal amount of Notes offered, we issued a further \$25.0 million of Notes pursuant to the exercise of the over-allotment option by the initial purchasers of the Notes. The Notes are convertible into shares of our common stock, at the option of the holder, at a price of \$14.00 per share, equivalent to an initial conversion rate of approximately 71.43 shares per \$1,000 principal amount of the Notes. We may redeem the Notes beginning April 20, 2009. We expect to use the proceeds of the offering principally for advancing our drug development programs, as well as for general corporate purposes.

In March 2004, we entered into a \$17,500,000 term loan with an Icelandic financial institution (the "Lender") to refinance our Tier C bonds and Tier D bank loan, thereby securing a significantly lower interest rate and extended payment terms on this portion of our mortgage obligations. The new term

loan bears interest at the three-month LIBOR plus 3% (5.42% as of December 31, 2004) until March 1, 2009, at which point, the Lender may adjust the interest margin unilaterally. 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%.

*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, 2004 were as follows:

	Total	Payments Due by period			
		Less Than 1 Year	1-3 Years	3-5 Years	More than 5 Years
		(In thousands)			
3.5% senior convertible notes, including interest . . . . .	\$184,125	\$ 5,250	\$10,500	\$10,500	\$157,875
Long-term debt . . . . .	56,228	9,990	22,409	9,802	14,027
Capital lease obligations, including interest . . . . .	3,071	1,852	1,160	59	0
Operating leases . . . . .	1,553	868	685	0	0
	<u>\$244,977</u>	<u>\$17,960</u>	<u>\$34,754</u>	<u>\$20,361</u>	<u>\$171,902</u>

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 \$6,000,000 and the year incurred cannot be determined at the current time.

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

The primary objectives of our investment activities are to preserve principal, maintain a high degree of liquidity to meet operating needs, and obtain competitive returns subject to prevailing market conditions. Investments are made primarily in high-grade corporate bonds, asset-backed debt securities and U.S. government agency debt securities. These investments are subject to risk of default, changes in credit rating and changes in market value. These investments are also subject to interest rate risk and will decrease in value if market interest rates increase. A hypothetical 100 basis point increase in interest rates would result in an approximate \$0.3 million decrease in the fair value of our investments as of December 31, 2004. Due to the conservative nature of our investments and relatively short effective maturities of debt instruments, interest rate risk is mitigated. Changes in interest rates do not affect interest expense incurred on the Company's Convertible Notes, because they bear interest at a fixed rate. The market value of the Convertible Notes was \$136.9 million on December 31, 2004.

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. A hypothetical 10.0% decrease in value of the US dollar against the Icelandic krona would result in a loss of approximately \$1.5 million on our Icelandic krona denominated non U.S. dollar assets and liabilities. We have historically purchased instruments to hedge these general risks through the use of derivative financial instruments; however, we have no derivative instruments outstanding as of December 31, 2004.

As of December 31, 2004 we did not have any financing arrangements that were not reflected in our balance sheet.

**Item 8. *Financial Statements and Supplementary Data***

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited the accompanying consolidated balance sheet of deCODE genetics Inc. and subsidiaries (the "Company") as of December 31, 2004, and the related consolidated statements of operations, stockholders' equity, and cash flows for the year then ended. 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 in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2004, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of December 31, 2004, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 14, 2005 expressed an unqualified opinion on management's assessment of the effectiveness of the Company's internal control over financial reporting and an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP

Boston, Massachusetts  
March 14, 2005

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of operations, 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 the results of their operations and their cash flows for each of the two years in the period ended December 31, 2003 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 the standards of the Public Company Accounting Oversight Board (United States). Those standards 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 "Long-Term Debt" for which the date is March 15, 2004

**deCODE genetics, Inc.**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2004	2003
	(In thousands, except share amounts)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents . . . . .	\$ 70,238	\$ 68,669
Investments . . . . .	122,082	0
Receivables . . . . .	6,450	6,498
Other current assets . . . . .	4,307	5,624
Total current assets . . . . .	203,077	80,791
Restricted cash . . . . .	6,000	6,000
Property and equipment, net . . . . .	60,447	71,590
Goodwill . . . . .	8,863	8,863
Other long-term assets and deferred charges . . . . .	9,865	16,231
Total assets . . . . .	\$ 288,252	\$ 183,475
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable . . . . .	\$ 5,829	\$ 5,353
Accrued expenses and other current liabilities . . . . .	9,528	7,189
Short-term borrowings . . . . .	5,069	6,500
Current portion of capital lease obligations . . . . .	1,745	5,741
Current portion of long-term debt . . . . .	7,081	4,893
Deferred research revenue . . . . .	8,654	10,518
Total current liabilities . . . . .	37,906	40,194
Capital lease obligations, net of current portion . . . . .	1,194	2,520
Long-term debt, net of current portion . . . . .	189,535	43,854
Deferred research revenue . . . . .	7,221	3,500
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: 54,539,069 and 54,522,069 respectively, at December 31, 2004; and 54,003,970 and 53,735,230, respectively, at December 31, 2003 . . . . .	55	54
Additional paid-in capital . . . . .	442,999	430,489
Notes receivable . . . . .	(3,111)	(4,240)
Deferred compensation . . . . .	0	(572)
Accumulated deficit . . . . .	(387,465)	(330,210)
Accumulated other comprehensive income . . . . .	38	3
Treasury stock, 17,000 and 268,740 shares stated at cost at December 31, 2004 and 2003, respectively . . . . .	(120)	(2,117)
Total stockholders' equity . . . . .	52,396	93,407
Total liabilities and stockholders' equity . . . . .	\$ 288,252	\$ 183,475

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

**deCODE genetics, Inc.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	For the Years Ended December 31,		
	2004	2003	2002
	(In thousands, except per share amounts)		
Revenue . . . . .	\$ 42,127	\$ 46,811	\$ 41,065
Operating expenses			
Cost of revenue, including collaborative programs . . . . .	43,407	45,870	48,713
Research and development—proprietary programs . . . . .	24,942	17,596	40,899
Selling, general and administrative . . . . .	20,187	17,178	18,685
Impairment, employee termination benefits and other charges . . . . .	0	951	64,790
Total operating expenses . . . . .	<u>88,536</u>	<u>81,595</u>	<u>173,087</u>
Operating loss . . . . .	(46,409)	(34,784)	(132,022)
Interest income . . . . .	2,903	1,151	2,954
Interest expense . . . . .	(8,983)	(3,478)	(3,079)
Other non-operating income and (expense), net . . . . .	(4,766)	1,988	(72)
Loss before cumulative effect of change in accounting principle . . . . .	(57,255)	(35,123)	(132,219)
Cumulative effect of change in milestone revenue recognition method	<u>0</u>	<u>0</u>	<u>333</u>
Net loss . . . . .	<u><u>\$(57,255)</u></u>	<u><u>\$(35,123)</u></u>	<u><u>\$(131,886)</u></u>
Basic and diluted net loss per share:			
Loss before cumulative effect of change in accounting principle . . . . .	\$ (1.07)	\$ (0.68)	\$ (2.69)
Cumulative effect of change in milestone revenue recognition method . . . . .	0.00	0.00	0.01
Net loss . . . . .	(1.07)	(0.68)	(2.68)
Shares used in computing basic and diluted net loss per share . . . . .	53,423	51,508	49,098

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	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, 2001 . . . . .	45,257,386	\$45	\$351,960	\$(10,788)	\$ (6,174)	\$(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 . . . . .	<u>53,545,234</u>	<u>\$54</u>	<u>\$431,494</u>	<u>\$(7,607)</u>	<u>\$(2,642)</u>	<u>\$(295,087)</u>	<u>\$ (1)</u>	<u>\$(965)</u>	<u>\$125,246</u>

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	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Common Stock	Par Value							
	(In thousands, except share amounts)								
<b>Balance at December 31, 2002</b> . . . . .	53,545,234	\$54	\$431,494	\$(7,607)	\$(2,642)	\$(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)
<b>Balance at December 31, 2003</b> . . . . .	<u>53,735,230</u>	<u>\$54</u>	<u>\$430,489</u>	<u>\$(4,240)</u>	<u>\$( 572)</u>	<u>\$(330,210)</u>	<u>\$ 3</u>	<u>\$(2,117)</u>	<u>\$ 93,407</u>

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	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, 2003 . . . . .	53,735,230	\$54	\$430,489	\$(4,240)	\$(572)	\$(330,210)	\$ 3	\$(2,117)	\$ 93,407
Issuance of common stock and warrants . .	689,703	1	11,507					2,121	13,629
Issuance of common stock upon exercise of stock options . . . . .	114,657		519	3					522
Compensation arising from stock options . .			484						484
Forfeiture and cancellations of common stock issued upon early exercise of stock options . . . . .	(17,521)			124				(124)	0
Payment of notes . . . . .				1,002					1,002
Amortization of deferred compensation . .					572				572
Comprehensive income (loss):									
Net loss for the period . . . . .						(57,255)			(57,255)
Other comprehensive income (loss):									
Foreign currency translation . . . . .							10		10
Unrealized gain on marketable securities . .							25		25
Total comprehensive income (loss): . . . . .									(57,220)
Balance at December 31, 2004 . . . . .	<u>54,522,069</u>	<u>\$55</u>	<u>\$442,999</u>	<u>\$(3,111)</u>	<u>\$ 0</u>	<u>\$(387,465)</u>	<u>\$38</u>	<u>\$ (120)</u>	<u>\$ 52,396</u>

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,		
	2004	2003	2002
	(In thousands)		
<b>Cash flows from operating activities:</b>			
Net loss	\$ (57,255)	\$(35,123)	\$(131,886)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	14,135	13,913	13,753
Purchased in-process research and development	0	0	480
Equity in net loss of affiliate	0	0	563
Gain on sale of investment in common stock of eMR	0	(254)	0
Stock-based compensation	1,171	2,440	3,048
Loss on disposal of equipment, net	883	224	475
Impairment of property, equipment and intangibles	0	0	7,474
Impairment of goodwill	0	0	53,400
Charges for write-down of obsolete and excess materials and supplies	117	802	3,352
Loss (gain) on derivative financial instruments	1,465	(4,824)	(6,361)
Foreign currency exchange loss on Icelandic krona denominated debt	2,936	3,947	5,652
Amortization of deferred financing costs	872	0	0
Other	(177)	(423)	117
Changes in operating assets and liabilities net of effect of acquisitions:			
Receivables	47	(1,205)	9,402
Other current assets	1,174	3,206	137
Accounts payable	476	488	(6,944)
Accrued expenses	2,224	(3,377)	(3,314)
Deferred research revenue	1,857	(145)	(2,962)
Other	139	0	453
Net cash used in operating activities	<u>(29,936)</u>	<u>(20,331)</u>	<u>(53,161)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of property and equipment	(2,695)	(882)	(15,637)
Acquisitions and investments, net	0	0	(571)
Purchase of marketable securities	(248,040)	0	0
Redemptions of marketable securities	125,950	0	0
Proceeds from sale of property and equipment	39	90	2,853
Other	93	0	0
Net cash used in investing activities	<u>(124,653)</u>	<u>(792)</u>	<u>(13,355)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Issuance of common stock and warrants	14,153	256	48
Repayment of notes receivable for common stock	1,002	536	234
Proceeds from convertible debt offering, net of financing costs	143,805	0	0
Changes in restricted cash	0	0	8,000
Proceeds (payments) on line of credit	(2,000)	6,500	0
Proceeds from short-term borrowings	1,119	0	0
Repayments from short-term borrowings	(550)	0	0
Proceeds from equipment sale-leaseback financing	436	4,750	459
Proceeds from facility financings	0	154	12,895
Proceeds from swap termination	9,720	0	0
Debt refinancing cost	(478)	0	0
Repayment of mortgage	0	0	(11,880)
Repayments of debt and capital lease obligations	(11,049)	(9,648)	(9,057)
Net cash provided by financing activities	<u>156,158</u>	<u>2,548</u>	<u>699</u>
Net increase (decrease) in cash and cash equivalents	1,569	(18,575)	(65,817)
Cash and cash equivalents at beginning of period	68,669	87,244	153,061
Cash and cash equivalents at end of period	<u>\$ 70,238</u>	<u>\$ 68,669</u>	<u>\$ 87,244</u>
<b>Supplemental cash flow information:</b>			
Cash paid for interest	\$ 6,250	\$ 2,479	\$ 3,397
<b>Supplemental schedule of non-cash transactions:</b>			
Common stock issued for acquisitions and investments	0	0	82,296

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 these financial statements to deCODE refer to deCODE genetics, Inc., a Delaware company, and deCODE genetics, Inc.'s wholly owned subsidiary, Islensk erfdagreining ehf., an Icelandic company registered in Reykjavik, and its subsidiaries, as well as deCODE genetics, Inc.'s wholly owned subsidiary, MediChem Life Sciences, Inc., a Delaware corporation, and its subsidiaries.

With its headquarters in Reykjavik, Iceland, deCODE is a biopharmaceutical 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 genes 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.

deCODE's focus is on the discovery and commercialization of novel therapeutics based on genetic information identified in deCODE's population-based gene discovery work. deCODE has integrated capabilities for applying genetic findings to the development of drugs, both through its proprietary 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 deCODE's targets in deCODE's collaborative and internal programs, the chemistry group provides drug discovery work for deCODE's fee-for-service customers. deCODE's other service offerings include protein crystallization products and protein structure analysis contract services through its Seattle-based biostructures group; pharmacogenomics and clinical trials services through its wholly-owned subsidiary Encode ehf; and DNA analysis services through its genotyping laboratory in Reykjavik.

***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 per share amounts.

***Reclassifications***

Beginning in 2004, deCODE began presenting cost of revenue in its statements of operations. To be consistent with year-end 2004 operating expense classifications, deCODE has reclassified previously reported research and development expenses for the years-ended December 31, 2003 and 2002. These reclassifications between research and development expenses and cost of revenue had no effect on reported amounts of total operating expenses or operating loss. In addition, certain reclassifications

**deCODE genetics, Inc.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

have been made to the December 31, 2003 balance sheet to be consistent with the December 31, 2004 balance sheet classifications.

***Principles of Consolidation***

The consolidated financial statements include the accounts and operations of deCODE genetics, Inc. and its wholly owned subsidiaries, Islensk erf dagreining ehf. and its subsidiaries, and MediChem Life Sciences, Inc. and its subsidiaries. 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 deCODE evaluates its 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. deCODE bases its estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form deCODE's 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***

At December 31, 2004, 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 investments made primarily in high-grade commercial paper, auction rate securities, money market funds, mutual fund investments and government, non-government debt securities and receivables. These investments are subject to risk of default, changes in credit rating and changes in market value. These investments are also subject to interest rate risk and will decrease in value if market interest rates increase.

deCODE's cash is deposited only with financial institutions in Iceland, United Kingdom and the United States having a high credit standing (A-/A3 or better). 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.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

*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 mortgage loans and capital lease obligations with similar terms, the carrying value of such of its debt obligations approximates fair value.

The fair values of mortgage bonds and equipment notes at December 31, 2004 were approximately \$15,531,000 and \$529,000, respectively, as estimated based on quoted market rates for instruments with similar terms and remaining maturities. The fair value of the 3.5% convertible notes at December 31, 2004 was approximately \$136,900,000. In October 2004, deCODE registered the convertible notes with the Securities and Exchange Commission allowing the notes to be traded on the open market. The fair value of the convertible notes was based on the quoted market prices at December 31, 2004

*Cash Equivalents*

Highly liquid investments with a maturity of ninety days or less at the date of purchased are generally considered cash equivalents. Auction rate securities, including those with maturities of ninety days or less at the date of purchase, are not classified as cash equivalents but as investments.

*Investments*

deCODE's investments consist of auction rate securities, an equity mutual fund investment, a bank certificate of deposit and a corporate bond, all of which are classified as available for sale. Investments are available for current operations and are classified as current assets. Investments are carried at fair value with the unrealized holding gain or loss included in accumulated other comprehensive income. Fair value is generally determined with reference to quotations in active markets. Premium and discounts associated with investments in bonds are amortized using the effective interest rate method. These investments as of December 31, 2004 are classified in current assets and are summarized as follows:

	<u>Amortized Cost</u>	<u>Estimated Fair Value</u>
	(in thousands)	
Auction rate securities . . . . .	\$ 85,050	\$ 85,050
Equity mutual fund investment . . . . .	30,000	30,027
Certificate of deposit (due January 2005) . . . . .	5,000	5,000
Corporate bond (due January 2005) . . . . .	2,007	2,005
	<u>\$122,057</u>	<u>\$122,082</u>

Gross unrealized holding gains and gross unrealized holding losses at December 31, 2004 were \$27,000 and \$2,000, respectively, and are included in accumulated other comprehensive income.

Proceeds from the sale of investments available-for-sale for the year ended December 31, 2004 were \$125,950,000. There were no realized gains or realized losses from the sale of investments available-for-sale in the year ended December 31, 2004.

**deCODE genetics, Inc.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

***Materials and Supplies***

Materials and supplies, included in deCODE's 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.

deCODE recorded charges for write-down of obsolete and excess materials and supplies of \$117,000, \$802,000 and \$3,352,000 for the years ended December 31, 2004, 2003 and 2002, respectively. In 2004 and 2003, deCODE used materials and supplies for which it had made provisions for in prior years as slow-moving, excess and obsolete, benefiting otherwise reported research and development expenses by \$1,411,000 and \$780,000, respectively.

***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.

***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.

***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 were \$22,955,000 and 26,553,000 at December 31, 2004 and 2003, respectively. Long-lived assets located in Iceland were \$55,115,000 and \$69,861,000 at December 31, 2004 and 2003, respectively.

***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. Remaining unamortized deferred financing costs included in long-term assets were \$7,067,000 and \$1,232,000 at December 31, 2004 and 2003, respectively.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

*Revenue*

deCODE records revenue provided that there is persuasive evidence that an arrangement exists, the price is fixed and determinable, services were rendered 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 accounting recognition policies with respect to each significant element of deCODE's 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 of 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 and prior to June 15, 2003, deCODE recognized revenue from milestone payments under the substantive milestone method 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 achievement of applicable performance requirements is received from the collaborator. 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 year's 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.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

In arrangements with multiple elements entered into after June 15, 2003, if the milestone is substantive in nature and there is uncertainty in the achievement of the milestone and there is no further obligation on the part of deCODE, 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 achievement of applicable performance requirements is received from the collaborator ("Milestone Payment Method"). If the milestone is earned and there is further obligation under the contract for performance by deCODE, then deCODE will record revenue when the milestone has been achieved and payment is due and payable under the terms of the respective agreement and deCODE retroactively recognizes revenue through the current period based on the total contractual term and amortizes the balance over the remaining contractual term.

*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.

Significant elements of deCODE's revenue are summarized as follows:

	<u>For the Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
	(In thousands)		
Research funding and other service fees . . . . .	\$33,755	\$35,718	\$36,641
Milestone payments . . . . .	1,835	5,794	1,462
Up-front, exclusivity, technology access, and technology development fees . . . . .	4,116	4,000	2,500
Other . . . . .	2,421	1,299	462
	<u>\$42,127</u>	<u>\$46,811</u>	<u>\$41,065</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 deCODE's accounting policy. Unbilled costs and fees arise when revenue has been recognized but customers have not been billed.

Revenues attributed to the United States were \$13,680,000, \$13,744,000 and \$14,485,000 for 2004, 2003 and 2002, respectively. Revenues attributed to Iceland were \$28,447,000, \$33,067,000 and \$26,580,000 for 2004, 2003 and 2002, respectively.

**Collaborations**

*F. Hoffmann-La Roche (Roche).*

*Therapeutics.* In 1998 deCODE entered into a research collaboration and cross-license agreement with Roche, under which deCODE identified key genetic factors involved in ten common diseases: osteoarthritis, Alzheimer's disease, schizophrenia, PAOD, stroke, osteoporosis, obesity, anxiety,

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

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 deCODE's 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. During 2004 deCODE collaborated with Roche on two of those diseases. Under the 2002 agreement, which expired on February 1, 2005, deCODE received \$20,000,000 in research funding and is entitled to receive royalties on the sales of any drugs that are developed coming out of work conducted under this agreement.

In November 2004, deCODE signed a new three-year agreement with Roche to co-develop inhibitors of PDE4 for the prevention and treatment of vascular disease, including stroke. This agreement continues work advanced under the 2002 agreement, and deCODE will focus on optimizing lead compounds identified in deCODE's previous work and beginning clinical development. deCODE and Roche will share drug discovery and clinical trials costs under this new agreement, and deCODE may receive milestone payments and royalties based on drug sales.

*Diagnostics.* In June 2001, 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 deCODE has received \$34,875,000 in research funding, up-front fees and milestone payments. deCODE may receive \$9,375,000 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 \$12,613,000, \$19,899,000 and \$16,943,000 for the years ended December 31, 2004, 2003 and 2002, respectively, representing 30%, 43% and 41% of consolidated revenue for the years ended December 31, 2004, 2003 and 2002, respectively. Costs incurred with these collaborative programs with Roche amounted to \$19,475,000, and \$19,629,000 for the years ended December 31, 2004 and 2003, respectively. Costs incurred in 2002 are not available as these costs were not tracked by program prior to 2003.

Roche accounted for 24% and 32% of consolidated receivables as of December 31, 2004 and 2003, respectively.

**deCODE genetics, Inc.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**  
**(tabular amounts in thousands, except share and per share amounts)**

*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 deCODE's 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 \$21,877,850 and may receive research funding and technology access fees in the future of \$5,250,000. 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 30 days' notice in the event that the research program fails to achieve certain specified goals. As of the end of 2004, deCODE had discovered three genes linked to obesity under this alliance, and Merck had generated lead series of compounds against one of the targets deCODE has validated through its genetics research.

Revenues from this alliance with Merck amounted \$7,850,000, \$8,500,000, and \$1,625,000 for the years ended December 31, 2004, 2003 and 2002, respectively, representing 19%, 18% and 4% of consolidated revenue for the years ended December 31, 2004, 2003 and 2002, respectively. Costs incurred in connection with this alliance with Merck amounted to \$4,630,000 and \$5,230,000 for the years ended December 31, 2004 and 2003, respectively. Costs incurred in 2002 are not available as these costs were not tracked by program prior to 2003.

*Information Rich Clinical Trials.* In February 2004, deCODE entered into an agreement with Merck which provides that deCODE will conduct information-rich clinical trials on a range of Merck's developmental compounds that Merck selects for inclusion in the program. The term of the alliance is seven years, subject to termination by Merck after five years. The collaboration involved three agreements: (a) a License and Research Collaboration Agreement; (b) a Stock and Warrant Purchase Agreement; and (c) a Warrant Agreement. Under the terms of the License and Research Collaboration Agreement, deCODE will receive royalties on sales of drugs and diagnostics developed as part of the alliance, will receive milestone payments as compounds or pharmacogenomic tests reach the market, will receive research funding for the clinical development of compounds and pharmacogenomic analysis, and received a one-time technology access fee of \$10,000,000. A contingency clause on the technology access fee provides that if deCODE rejects the first two non-exclusive development compounds that Merck presents to the collaboration, then Merck has the right to request a refund of \$2,500,000 of the technology access fee. The remaining amount of the technology access fee is non-refundable. To date, Merck has not selected any compounds for development under the agreement. Under the terms of the Stock and Warrant Purchase Agreement, Merck purchased 689,703 shares of deCODE's common stock at a price of \$14.50 per share or \$10,000,000, which represents a premium of \$2,700,000 to the fair market value of the stock on the effective date of the agreement (\$10.60 per share). Accordingly, of the \$10,000,000 cash received, deCODE ascribed \$7,300,000 to the common stock and \$2,700,000 to deferred revenue. Under the terms of the Warrant Agreement, deCODE has issued Merck a warrant to purchase up to 1,724,257 of additional shares of deCODE's common stock at an exercise price of \$29.00 per share over the five year term of the warrant. The warrant is exercisable at Merck's option as to 344,851 shares for a period of 30 days commencing on the first, second, third, fourth and fifth anniversaries of the Warrant Agreement with the final portion of warrants expiring in March 2009. Any portion of this warrant that is not exercised during an applicable exercise period shall expire and be of

**deCODE genetics, Inc.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

no further force or effect. The warrant was valued at \$6,300,000 using a Black Scholes model with the following assumptions: lives of one to five years, risk free interest rates of 1.24% to 3.07%, volatility of 90% and no dividend yield. The one-time technology access fee of \$10,000,000 and the \$2,700,000 premium received on the sale of common stock less the estimated fair value of the warrant of \$6,300,000, together netting to \$6,400,000, has been recorded as deferred revenue. This amount less the refundable amount of \$2,500,000 (\$3,900,000) is being recognized as revenue according to level of efforts over the seven-year development term. The \$2,500,000 refundable amount will be recognized as revenue according to level of efforts retrospectively over the seven-year development term commencing upon satisfaction of the contingency.

Revenues from this alliance with Merck amounted to \$825,000 for the year ended December 31, 2004. Costs incurred in connection with this alliance with Merck amounted to \$1,313,000 for the year ended December 31, 2004.

*National Institute of Allergy and Infectious Diseases (NIAID).*

On September 30, 2004, deCODE was awarded a five-year \$23,900,000 contract by the NIAID, a division of the U.S. National Institutes of Health. Under the contract, deCODE will apply its population approach and resources to discover genetic factors associated with susceptibility to certain infectious diseases and with responsiveness to vaccines targeting such diseases. Revenue under this contract will be recognized as deCODE incurs costs related to the contract.

*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 until the development efforts were completed or the Agreement is terminated, if earlier, as was the case. As a result, deferred revenue of \$6,300,000 (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.

***Cost of Revenue, including Collaborative Programs***

deCODE's cost of revenue is comprised of costs of services provided to customers and collaborators, including the entirety of costs incurred in connection with programs that have been partnered and on which we receive research funding. At times, deCODE may dedicate additional resources and incur costs in addition to costs covered by research funding received in such collaborative programs. Major components of deCODE's cost of revenue 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.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

*Research and Development—Proprietary Programs*

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 proprietary programs and consist of the following:

	For the Year Ended December 31,		
	2004	2003	2002
	(In thousands)		
Salaries and other personnel costs . . . . .	\$10,233	\$ 8,375	\$14,308
Materials and supplies . . . . .	3,671	2,650	9,568
Contractor services and other third party costs . . . . .	3,938	3,669	6,051
Overhead expenses . . . . .	1,603	1,773	4,029
Depreciation and amortization . . . . .	5,123	3,883	5,909
Stock-based compensation and remuneration . . . . .	374	467	1,034
Database license fee reversal . . . . .	0	(3,221)	0
	<u>\$24,942</u>	<u>\$17,596</u>	<u>\$40,899</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 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 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 deCODE's 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.

Because of this, 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 the accrued fees has reduced recorded research and development expenses for the year-ended December 31, 2003.

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 2003 and the remainder was 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 of 2003. Further, deCODE is obligated to make development milestone payments to Bayer as the compound

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

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 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:

	<u>For the Years Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
	<u>(In thousands, except per share amounts)</u>		
Net loss attributable to common stockholders—as reported . . . . .	\$(57,255)	\$(35,123)	\$(131,886)
Add: Stock-based employee compensation expense included in reported net loss . . . . .	964	2,440	3,048
Deduct: Total stock-based employee compensation expense determined under fair value method for all awards . . . . .	<u>(5,932)</u>	<u>(6,964)</u>	<u>(7,415)</u>
Net loss attributable to common stockholders—proforma . . . . .	<u>\$(62,223)</u>	<u>\$(39,647)</u>	<u>\$(136,253)</u>
Basic and diluted net loss per share as reported— as reported . . . . .	\$ (1.07)	\$ (0.68)	\$ (2.68)
Basic and diluted net loss per share—proforma . . .	(1.16)	(0.77)	(2.77)

In December 2004, the FASB issued Statement of Financial Accounting Standard No. 123 (revised 2004), "Share-Based Payment". This Statement replaces FASB Statement No. 123 and supercedes APB Opinion No. 25. No. 123(R) eliminates the ability to account for employee share-based compensation transactions using the intrinsic method currently used by deCODE. No. 123(R) requires such transactions be accounted for using a fair-value-based method that would result in expense being

**deCODE genetics, Inc.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

recognized in deCODE's financial statements. deCODE will be required to adopt No. 123(R) in the third quarter of fiscal 2005 and has not yet determined the impact of adoption on deCODE's consolidated financial position or results of operations.

***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 this entity, 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 recorded upon remeasurement were \$3,294,000, \$29,000 and \$731,000 in 2004, 2003 and 2002, respectively.

***Income Taxes***

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

***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.

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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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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 were:

	For the Years Ended December 31,		
	2004	2003	2002
	(Shares)	(Shares)	(Shares)
Warrants to purchase shares of common stock . . . . .	3,124,733	1,400,467	1,851,300
Options to purchase shares of common stock . . . . .	4,689,942	4,108,331	2,270,507
Restricted shares with an associated outstanding non-recourse promissory note . . . . .	1,186,123	1,235,975	2,467,196
Convertible shares issuable upon conversion of 3.5% senior convertible notes . . . . .	10,714,286	0	0
	<u>19,715,084</u>	<u>6,744,773</u>	<u>6,589,003</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 and unrealized gains and losses associated with investments.

*Other Current Assets*

Other current assets consist of the following:

	December 31,	
	2004	2003
	(In thousands)	
Materials and supplies . . . . .	\$1,296	\$2,322
Value added taxes . . . . .	853	1,447
Other current assets . . . . .	2,158	1,855
Total . . . . .	<u>\$4,307</u>	<u>\$5,624</u>

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

*Property and Equipment*

Property and equipment consist of the following:

	December 31,	
	2004	2003
	(In thousands)	
Land . . . . .	\$ 2,303	\$ 2,303
Buildings . . . . .	50,547	50,418
Laboratory equipment . . . . .	18,151	35,991
Furniture and fixtures . . . . .	5,687	5,479
Other equipment . . . . .	3,955	4,703
	<u>80,643</u>	<u>98,894</u>
Less: accumulated depreciation and amortization . . . . .	(20,196)	(27,304)
Total . . . . .	<u>\$ 60,447</u>	<u>\$ 71,590</u>

The total depreciation and amortization expense of property and equipment for the years ended December 31, 2004, 2003 and 2002 was \$12,029,000, \$12,442,000 and \$12,112,000, respectively.

In light of experience and the current technological environment, in 2004, deCODE changed certain of its salvage value and useful life estimates for equipment and furniture and fixtures for purposes of depreciation. These changes in estimates had the effect in increasing depreciation expense and basic and diluted net loss per share by \$2,171,000 and \$0.04 per share, respectively, for the year end December 31, 2004.

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. In January 2004, the lease was extended for another 18-month term with the final payment due June 2006. As ownership of the equipment will be transferred to deCODE at the end of the extended 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.

In addition to the 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 \$7,328,000 and \$3,547,000, respectively, as of December 31, 2004 and \$16,543,000 and \$8,478,000, respectively, as of December 31, 2003. 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. (MediChem)**

On March 18, 2002, deCODE acquired MediChem in a stock-for-stock exchange accounted for as a purchase transaction. 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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

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:

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

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 are not reflected in the following pro forma. This pro forma information is not intended to be indicative of future operating results.

	<u>For the Year Ended December 31, 2002</u>
	<u>(In thousands, except per share amounts)</u>
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 and 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 deCODE's goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

acquisition, should be performed. We have recorded the following impairment, employee termination benefits and other charges in the year-ended December 31, 2002:

	<u>(In thousands)</u>
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>

During the year ended December 31, 2003, deCODE recorded \$951,000 of additional employee terminations benefits. There were no unpaid benefits remaining as of December 31, 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 deCODE's drug discovery reporting unit.

In September 2002, deCODE established 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 but the efforts were not successful. 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 to sell, deCODE wrote-down the property in September 2002 and recorded a loss amounting to \$2,706,000.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

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

*Goodwill and Other Intangibles*

All of the deCODE's goodwill resulted from the acquisition of MediChem. The goodwill is tested for impairment annually on September 30 of each year and whenever changes in the circumstances indicate goodwill could be impaired. No goodwill impairment losses were recorded in the years ended December 31, 2004 and 2003.

Other intangible assets included in other long-term assets and deferred charges on the consolidated balance sheet as of December 31, 2004 and 2003 consist of the following:

	For the Year Ended December 31, 2004		
	Gross	Accumulated Amortization (In thousands)	Net
Developed technology, 5 year life . . . . .	\$4,560	\$2,546	\$2,014
Patents, 5-7 year life . . . . .	380	133	247
Royalty-free licenses, 10 year life . . . . .	230	64	166
Other, 5 year life . . . . .	320	179	141
Total . . . . .	<u>\$5,490</u>	<u>\$2,922</u>	<u>\$2,568</u>

	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
Other, 5 year life . . . . .	320	115	205
Total . . . . .	<u>\$5,490</u>	<u>\$1,876</u>	<u>\$3,614</u>

Aggregate amortization expense was \$1,046,000, \$1,047,000 and \$829,000 for the years ended December 31, 2004, 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, 2004 is as follows:

2005 . . . . .	\$1,047
2006 . . . . .	1,047
2007 . . . . .	274
2008 . . . . .	71
2009 . . . . .	45
Thereafter . . . . .	84
	<u>\$2,568</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,	
	2004	2003
	(In thousands)	
Salaries and other employee benefits . . . . .	\$5,578	\$3,885
Accrued Interest . . . . .	1,395	583
Other current liabilities . . . . .	2,555	2,721
Total . . . . .	\$9,528	\$7,189

In January, 2004 a then executive officer of deCODE acquired an ownership interest in Icelandair, the only regularly-scheduled commercial airline serving Iceland. From January 2004 through June 2004 (when the executive officer left the employ of the company) deCODE incurred charges to Icelandair of \$436,000 for business travel by deCODE's officers and employees. deCODE believes that the rates charged us by Icelandair are no less favorable than those it charges other customers.

***Short-Term Borrowings***

Short-term borrowings as of December 31, 2004 consists of \$4,500,000 with an Icelandic financial institution that is due in two amounts of \$2,500,000 and \$2,000,000 on March 17, 2005 and April 28, 2005 at an interest rate of three month LIBOR (3.46% and 3.52%, respectively), together with a short-term loan for \$1,100,000 entered into in August 2004 at an interest rate of 3.79% due in ten monthly principal installments of \$114,000. The balance of the short-term loan at December 31, 2004 was \$569,000

Short-term borrowings as of December 31, 2003 consisted of \$6,500,000 with an Icelandic financial institution that was due in three amounts of \$2,000,000, \$2,000,000 and \$2,500,000 on March 22, April 30 and May 17, 2004, respectively, at interest rates of three month LIBOR (2.05%, 2.01% and 1.90%, respectively).

***Long-Term Debt***

Long-term debt consists of the following:

	December 31,	
	2004	2003
	(In thousands)	
Senior convertible notes . . . . .	\$150,000	\$ 0
Mortgage bonds . . . . .	14,236	25,406
Mortgage loans . . . . .	31,659	22,001
Equipment notes . . . . .	721	1,340
Total . . . . .	196,616	48,747
Less current portion . . . . .	7,081	4,893
Long-term portion . . . . .	\$189,535	\$43,854

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In April 2004, deCODE completed an offering of 3.5% Senior Convertible Notes (Notes) due 2011 to qualified institutional buyers. The Notes are convertible into shares of deCODE common stock, at the option of the holder, at a price of \$14.00 per share (fair market value of \$10.60 on date of issuance), which is equivalent to an initial conversion rate of approximately 71.43 shares per \$1,000 principal amount of the Notes. deCODE may redeem the Notes beginning April 20, 2009. Interest is payable semi-annually on April 15 and October 15. During the year ended December 31, 2004, interest expense of \$3,768,000 was recorded to other non-operating expenses in the Consolidated Statements of Operations. From this offering, deCODE received net proceeds of \$143,805,000. deCODE recorded deferred offering costs of \$6,195,000 which are being amortized to interest expense over the seven-year life of the Notes. During the year ended December 31, 2004, interest expense of \$635,000 was recorded to other non-operating expenses in the Consolidated Statements of Operations. Deferred financing costs related to the Notes is included in other long-term assets and total \$5,560,000 at December 31, 2004.

The mortgage bonds (at December 31, 2004 consisting of Tier A bonds) were issued in 2002 in the amount of \$13,500,000 to finance the construction of deCODE's headquarters facility in Iceland and are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The mortgage bonds bear annual interest of 8.5% that is payable annually in along with principal beginning in December 2002 and final payment in December 2008.

The mortgage loans consist of the following:

- 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 the Tier A bonds, 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% (5.42% at December 31, 2004) that is payable quarterly beginning March 2002. The lender may demand prepayment of the Tier B bank loan in certain circumstances. 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 is denominated in U.S. dollars and bears annual interest of three-month LIBOR plus 6.0% (8.71% at December 31, 2004) that is payable quarterly. The principal is amount is payable in March 2007. 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.
- 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")
- In March 2004, we entered into a \$17,500,000 mortgage loan with an Icelandic financial institution (the "Lender") to refinance the Tier C and Tier D. The new term loan bears interest at the three-month LIBOR plus 3% (5.42% as of December 31, 2004) until March 1, 2009, at which point, the Lender may adjust the interest margin unilaterally. The term loan is payable in twenty quarterly payments starting on March 1, 2009 and the final payment is due on

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

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%. deCODE has accounted for this refinancing in accordance with EITF 96-19 "Debtor's Accounting for Modification or Exchange of Debt Instruments". Accordingly, the remaining unamortized borrowing costs and discount associated with the refinanced debt, along with borrowing costs associated with the new term loan will be amortized to interest expense over the remaining term of the new loan. Deferred financing costs related to the mortgage loan is included in other long-term assets and total \$1,400,000 at December 31, 2004.

- In June 2002, deCODE executed a mortgage for \$11,800,000 with a financial institution for its Woodridge, IL facility. The debt carries an interest rate of three-month LIBOR + 1.75% (3.93% at December 31, 2004), principal 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% (4.66% at December 31, 2004) that is payable in semi-annual installments of \$73,000 beginning June 2003 with a final payment of \$1,835,000 due in 2005.

The equipment notes consist of various loans for laboratory and other equipment and range in principal amount from \$7,000 to \$181,000. The notes are generally payable over a term of 4 years at interest rates ranging from 8.52% to 9.57%.

The mortgage bonds, term loans and equipment notes are collateralized by deCODE's facilities and equipment.

As of December 31, 2004 principal payments on long-term debt are as follows:

2005 .....	\$ 7,081
2006 .....	4,959
2007 .....	13,310
2008 .....	4,125
2009 .....	3,504
2010 and thereafter .....	163,637
	<u>\$196,616</u>

**Derivative Financial Instruments**

deCODE recognizes all derivatives as either assets or liabilities in the consolidated balance sheet and measure those instruments at fair value. deCODE did not designate any derivative instruments as being part of a qualified hedging relationship during 2003 or 2002.

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 had used 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 were designated as economic hedges of fixed rate foreign

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

currency debt, but did not qualify for hedge accounting. The estimated fair value of these instruments was \$11,185,000 as of December 31, 2003 and was included in other long-term assets and deferred charges on the consolidated balance sheet. The resulting change in the unrealized gain for the year-ended December 31, 2003 and December 31, 2002 of \$4,824,000 and \$6,361,000, respectively and included in other non-operating income and (expense), net in the Consolidated Statements of Operations.

In March 2004, deCODE refinanced its foreign currency debt, with the new instrument being a variable rate U.S dollar denominated debt. Following-on from this refinancing, deCODE reconsidered its two cross-currency swaps and decided to liquidate them realizing \$9,720,000 in proceeds. deCODE realized a loss on this early termination that, together with unrealized losses on the swaps during the quarter ended March 31, 2004, amounted to \$1,465,000. Unrealized and realized gains and losses on these two cross-currency swaps are included in other non-operating income and (expense), net in the Consolidated Statements of Operations.

In March 2004, deCODE entered into five forward foreign exchange contracts with an Icelandic financial institution for purposes of hedging a portion of its Icelandic krona-denominated salaries. On the maturity date of each contract, deCODE sold \$1,600,000 and deCODE received Icelandic krona at the contracted forward rate. These forward foreign exchange contracts were designated as economic hedges of the foreign currency salary cash flows and qualified for hedge accounting. The final contract matured in August 2004 and no new contracts were entered into. During the year ended December 31, 2004, a loss of \$11,000 with regard to these forward exchange contracts was recorded to operating expenses in the Condensed 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 2009. At December 31, 2004, future minimum lease payments under all non-cancelable leases with remaining terms in excess of one-year are as follows:

	<u>Operating</u>	<u>Capital</u>
	(In thousands)	
2005 . . . . .	\$ 868	\$1,852
2006 . . . . .	489	967
2007 . . . . .	196	193
2008 . . . . .	0	51
2009 . . . . .	0	8
2010 . . . . .	0	0
Total minimum lease payments . . . . .	<u>\$1,553</u>	3,071
Less amount representing interest . . . . .		<u>(132)</u>
Present value of future minimum lease payments . . . . .		2,939
Less: current portion . . . . .		<u>(1,745)</u>
Long-term portion . . . . .		<u>\$1,194</u>

Rental expense for operating leases was \$1,482,000, \$1,648,000 and \$1,491,000 in the years ended December 31, 2004, 2003 and 2002, 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 and management recorded a provision amounting to \$903,000 with respect to the remaining commitments. Total remaining minimum lease payments on these facilities are \$272,000 as of December 31, 2004.

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 \$6,000,000 and the year incurred cannot be determined at the current time.

*Guarantees*

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, 2004.

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 holds 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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

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, 2004.

*Litigation*

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 in connection with deCODE's initial public offering 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 individuals who were executive officers of deCODE at the time of its initial public offering (the "Individual Defendants"), and the two lead underwriters (the "Underwriter Defendants") for deCODE's initial public offering in July 2000 (the "IPO") as defendants.

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 United States District 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 deCODE's request for indemnification is premature.

Pursuant to an agreement the Individual Defendants have been dismissed from the case without prejudice.

On July 31, 2003, deCODE's Board of Directors (other than deCODE's Chairman and Chief Executive Officer, who recused himself because he was an Individual Defendant) approved a proposed partial settlement with the plaintiffs in this matter, 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. Any direct financial impact of the proposed settlement will to be borne by deCODE's insurers.

In conjunction with the plaintiffs, the settling issuer defendants filed a motion seeking the court's preliminary approval of the settlement. On February 15, 2005, the court granted the motion, subject to certain modifications. The parties are directed to report back to the court regarding the modifications. If the parties are able to agree upon the required modifications, and such modifications are acceptable to the court, notice will be given to all class members of the settlement and a "fairness" hearing will be held. If the court determines that the settlement is fair to the class members, the settlement will be approved. There can be no assurance that this proposed settlement will be approved and implemented in its current form, if at all. If the settlement of the IPO litigation is not consummated, deCODE expects to contest the allegations in the action vigorously. Due to the inherent uncertainties of the litigation and because the settlement approval process is at a preliminary stage, deCODE cannot predict the ultimate outcome of this matter.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

In an unrelated matter, subsequent to deCODE's Form 8-K filing on August 26, 2004 relating to deCODE's change in auditors, five complaints were filed in September and October 2004 in the United States District Court for the Southern District of New York against deCODE and deCODE's Chief Executive Officer and Chief Financial Officer alleging violations of federal securities laws arising from certain of deCODE's public statements. The complaints are brought by plaintiffs seeking to represent a purported class consisting of all persons who purchased deCODE's common stock during the period from October 29, 2003 through August 26, 2004 and contend that deCODE made misleading statements, misrepresentations and omissions regarding deCODE's financial performance, compliance with generally accepted accounting principles and deCODE's internal controls. The complaints all arise out of the same alleged statements, and have been consolidated before a single Judge. The plaintiffs seek unspecified monetary damages and other relief. deCODE believes that these actions are without merit and intends to defend against them vigorously.

On September 14, 2004, a complaint was filed in the United States District Court for the Southern District of New York in a derivative action against deCODE, its directors and specified officers. Based upon the same misstatements and omissions alleged in the above-described securities complaints, the complaint alleges violations of state law by the defendants including breaches of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets and unjust enrichment. The complaint seeks unspecified monetary damages and other relief. deCODE believes that this action is without merit and intends to defend against it vigorously.

Due to the inherent uncertainties of litigation, the early stage of the new securities matters, and the fact that the settlement of the litigation relating to deCODE's IPO remains subject to court approval, the ultimate outcome of these matters cannot be predicted. If deCODE were required to pay significant monetary damages in the event that the IPO settlement is unconsummated or as a result of an adverse determination in the other actions described above (or any other lawsuits alleging similar claims filed against deCODE and deCODE's directors and officers in the future), deCODE's business could be significantly harmed. Even if such litigations conclude in deCODE's favor, deCODE may be required to expend significant funds to defend against the allegations. deCODE is unable to estimate the range of possible loss from the above litigations and no amounts have been provided for such matters in deCODE's financial statements.

*Preferred Stock*

At December 31, 2004, 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.

**deCODE genetics, Inc.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

***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.

At December 31, 2004, forfeited unvested shares of common stock issued upon early exercise of stock options totaling 17,000 shares were held in treasury. At December 31, 2004, there were no shares of common stock that were issued upon early-exercise of stock options that 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 a then executive officer of the Company became due. On November 3, 2003, and in accordance with the terms of the note, the Company applied 240,096 of the total 260,000 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.

***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, 0, 450,833 and 150,000 were exercised in the years ended December 31, 2004, 2003 and 2002, respectively.

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 debt.

In February 2004, deCODE issued a warrant to purchase 1,724,257 shares of common stock at \$29.00 per share over five years to Merck in connection with a Stock and Warrant Purchase Agreement. The warrant is exercisable at Merck's option as to 344,851 shares for a period of 30 days commencing on the first, second, third, fourth and fifth anniversaries of the Warrant Agreement. Any portion of this warrant that is not exercised during an applicable exercise period shall expire and be of no further force or effect (See "Revenue" Note).

**deCODE genetics, Inc.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

Warrant activity is summarized as follows:

	For the Years Ended December 31,		
	2004	2003	2002
Outstanding at beginning of year . . . . .	1,400,476	1,851,300	1,067,500
Issued . . . . .	1,724,257	0	933,800
Exercised . . . . .	0	(450,833)	(150,000)
Outstanding at end of year . . . . .	3,124,733	1,400,467	1,851,300

A summary of the exercisable deCODE warrants as of December 31, 2004, 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
1,400,467		

***Stock Option Plans***

deCODE maintains the deCODE genetics, Inc. 1996 and 2002 Equity Incentive Plans (the "Plans"). A total of 10,000,000 options are reserved for grants under the terms of the Plans. The Plans provide for grants of stock options to employees, members of the Board of Directors, consultants and other advisors who are not employees. Options granted to date generally vest over a period of four years, generally have a maximum term of 10 years, and may contain early-exercise provisions allowing for company-provided financing of the exercise price. As of December 31, 2004, 830,775 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, 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
Granted . . . . .	30,000	8.39	832,734	8.35	0	0.00	862,734	8.35
Exercised . . . . .	0	0.00	(113,427)	4.57	0	0.00	(113,427)	4.57
Cancelled . . . . .	0	0.00	(164,154)	7.68	(3,542)	10.00	(167,696)	7.73
Outstanding at December 31, 2004 . . . . .	130,000	\$ 7.64	4,071,984	\$ 7.95	487,958	\$ 9.02	4,689,942	\$ 8.05

In 2004, deCODE granted options to purchase 31,500 shares of common stock to consultants under the 2002 Equity Incentive Plan. These options were valued at \$103,000 using a Black Scholes model, with 90% volatility, and a 10 year life assumption. Compensation for these options is subject to remeasurement and is being amortized over the performance period.

The following table summarizes information about stock options outstanding under the 1996 and 2002 Plan at December 31, 2004:

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 \$4.16 . . . . .	505,837	\$ 2.15	8.05	327,340	\$ 2.17
\$4.68 to \$8.00 . . . . .	992,722	6.52	8.00	703,622	6.46
\$8.06 to \$8.65 . . . . .	1,159,846	8.18	8.41	491,742	8.20
\$8.96 to \$8.96 . . . . .	1,477,500	8.96	8.88	643,447	8.96
\$9.65 to \$24.56 . . . . .	554,037	13.51	6.15	494,037	13.84
\$1.52 to \$24.56 . . . . .	4,689,942	\$ 8.05	8.17	2,660,188	\$ 8.23

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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

value of options granted as estimated by the Black-Scholes option pricing model. Deferred compensation is amortized and recorded as compensation expense ratably over the vesting period of the options. Stock-based compensation expense of \$964,000, \$2,440,000 and \$3,048,000 was recognized in the statements of operations during the years ended December 31, 2004, 2003 and 2002 for employee stock options, and stock-based remuneration expense of \$207,000, \$0 and \$0 was recognized in the statements of operations during the years ended December 31, 2004, 2003 and 2002 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.

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

	For the Years Ended December 31,		
	2004	2002	2003
Exercise price equals grant date stock fair value . . . . .	6.05	4.97	5.91
Exercise price less than grant date stock fair value . . . . .	—	5.54	—

The fair values of the options granted during 2004, 2003 and 2002 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 92%, 100% and 100%, respectively, expected terms of 5 years for all periods; and risk-free interest rates of 3.65%, 3.11% and 4.49%, respectively.

**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,		
	2004	2003	2002
	(In thousands)		
Research and development expense . . . . .	\$ 740	\$1,328	\$2,004
General and administrative expense . . . . .	431	1,112	1,044
Total . . . . .	<u>\$1,171</u>	<u>\$2,440</u>	<u>\$3,048</u>

In 2004, deCODE granted a stock award to a consultant for 15,000 shares of stock valued at \$104,400. These shares were issued in January 2005

**Defined Contribution Benefits**

deCODE contributes to relevant pension organizations for personnel in Iceland in accordance with Icelandic law. 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

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

contributions were \$1,648,000, \$1,745,000 and \$1,928,000 for the years ended December 31, 2004, 2003 and 2002, respectively.

deCODE maintains a 401(k) pension plan available to eligible full-time employees in the United States. deCODE made contributions of \$53,000, \$33,000 and \$31,000 in the years ended December 31, 2004, 2003 and 2002 to this plan. Additionally, deCODE's subsidiary, MediChem Life Sciences 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 2004 and 2003, deCODE contributed \$195,000 and \$155,000, respectively 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's deferred tax assets (liabilities) are comprised of the following:

	December 31,	
	2004	2003
	(In thousands)	
Loss carryforwards . . . . .	\$55,648	\$38,783
Capitalized research and development costs . . . . .	13,688	13,124
Deferred revenue . . . . .	2,141	1,728
Fixed asset depreciation . . . . .	(556)	(696)
Intangible assets/patents . . . . .	(1,009)	(1,433)
Other deferred tax assets . . . . .	85	(259)
Total deferred tax asset, net . . . . .	69,997	51,247
Valuation allowance . . . . .	(69,997)	(51,247)
	<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,		
	2004	2003	2002
Income taxes at federal statutory rates . . . . .	(34.0)%	(34.0)%	(34.0)%
State income taxes, net of federal benefit . . . . .	(1.6)	(1.4)	(0.6)
Non-deductible equity compensation . . . . .	3.9	1.3	0.4
Non-deductible goodwill amortization . . . . .	0.0	0.0	13.8
Foreign rate differential . . . . .	12.2	11.1	8.0
Foreign currency adjustment . . . . .	(12.4)	(9.2)	(5.1)
Other . . . . .	(0.8)	1.9	(0.1)
Net change in valuation allowance . . . . .	32.7	30.3	17.6
	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

Pre-tax U.S. losses were \$13,587,000, \$10,813,000 and \$65,825,000 and pre-tax Icelandic losses were \$43,668,000, \$24,310,000 and \$66,061,000 in 2004, 2003 and 2002, respectively. As of December 31, 2004, deCODE had U.S. federal net operating loss ("NOL") carryforwards of approximately \$45,423,000 that may be available to offset future U.S. federal income tax liabilities and expire at various dates through 2024. As of December 31, 2004, deCODE's Icelandic subsidiaries had NOL carryforwards of approximately \$209,578,000 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 \$446,000 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.

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 the year-ended December 31, 2004, 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 \$32,502,000, \$18,000,000 and \$37,400,000, respectively.

*Selected Quarterly Data (Unaudited)*

	For the Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
	(In thousands, except per share amounts)			
<b>FISCAL 2004</b>				
Revenue .....	\$10,282	\$ 9,635	\$11,022	\$11,188
Operating loss .....	9,414	11,677	10,275	15,043
Net loss .....	12,036	13,279	12,502	19,438
Basic and diluted net loss per share .....	(0.23)	(0.25)	(0.23)	(0.36)
<b>FISCAL 2003</b>				
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)

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

Not applicable.

**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 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.

In designing and evaluating our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance that the desired objectives of the control system will be met. In addition, the design of any control system is based in part upon certain assumptions about the likelihood of future events and the application of judgment in evaluating the cost-benefit relationship of possible controls and procedures. Because of these and other inherent limitations of control systems, there is only reasonable assurance that our controls will succeed in achieving their goals under all potential future conditions.

- (b) *Changes in Internal Controls.* We are continuously seeking to improve the efficiency and effectiveness of our internal controls. This results in periodic refinements to internal control processes throughout the Company. However, there was no significant change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the last fiscal quarter of the year ended December 31, 2004 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**Management's Report on Internal Control Over Financial Reporting**

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended. The Company's internal control system was designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of published financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2004. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework*. Based on its assessment management believes that, as of December 31, 2004, the Company's internal control over financial reporting is effective based on those criteria.

The Company's independent registered public accounting firm, Deloitte & Touche LLP, which audited the financial statements contained in this Annual Report on Form 10-K, has issued an attestation report on management's assessment of the Company's internal control over financial reporting as of December 31, 2004. This report, which expresses an unqualified opinion on management's assessment and on the effectiveness of the Company's internal control over financial reporting as of December 31, 2004, is included below under the heading "Report of Independent Registered Public Accounting Firm."

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that deCODE genetics, Inc and subsidiaries (the "Company") maintained effective internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that the Company maintained effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2004 of the Company and our report dated March 14, 2005 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP

Boston, Massachusetts  
March 14, 2005

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**Item 9B. Other Information**

Not applicable

**PART III**

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

**Directors**

For information concerning this item, see the information under “Election of Directors,” “Executive Officers” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the Company’s Proxy Statement to be filed with respect to the 2005 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 11. *Executive Compensation***

For information concerning this item, see the information under “Executive Compensation” in the Company’s Proxy Statement to be filed with respect to the 2005 Annual Meeting of Stockholders, which information is incorporated herein by reference.

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

For information concerning this item, see the information under “Security Ownership of Certain Beneficial Owners and Management” in the Company’s Proxy Statement to be filed with respect to the 2005 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 13. *Certain Relationships and Related Transactions***

For information concerning this item, see the information under “Certain Relationships and Related Transactions” in the Company’s Proxy Statement to be filed with respect to the 2005 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 14. *Principal Accountant Fees and Services***

For information concerning this item, see the information under “Principal Accountant Fees and Services” in the Company’s Proxy Statement to be filed with respect to the 2005 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**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:

	<u>PAGE</u>
Reports of Independent Registered Public Accounting Firms . . . . .	56, 57
Consolidated Balance Sheets . . . . .	58
Consolidated Statements of Operations . . . . .	59
Consolidated Statements of Changes in Stockholders' Equity . . . . .	60
Consolidated Statements of Cash Flows . . . . .	63
Notes to Consolidated Financial Statements . . . . .	64

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

The exhibits required to be filed are listed on the "Exhibit Index" attached hereto, which is incorporated herein by reference.

## 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 16, 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 indicated.

<u>/s/ KARI STEFANSSON</u> Kari Stefansson	Chairman, President, Chief Executive Officer and Director (principal executive officer)	March 16, 2005
<u>/s/ LANCE THIBAUT</u> Lance Thibault	Chief Financial Officer and Treasurer (principal financial officer and principal accounting officer)	March 16, 2005
<u>/s/ GÖRAN A. ANDO</u> Göran A. Ando	Director	March 16, 2002
<u>/s/ J. NEAL ARMSTRONG</u> J. Neal Armstrong	Director	March 16, 2005
<u>/s/ JAMES BEERY</u> James Beery	Director	March 16, 2005
<u>/s/ TERRANCE MCGUIRE</u> Terrance McGuire	Director	March 16, 2005
<u>/s/ JEAN-FRANCOIS FORMELA</u> Jean-Francois Formela	Director	March 16, 2005

## EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
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	Warrant, dated February 25, 2004, issued to Merck & Co., Inc. (Incorporated by reference to Exhibit 4.7 to the Company's Annual Report on Form 10-K filed on March 15, 2004).
4.7	Indenture dated as of April 14, 2004 between deCODE genetics, Inc. and The Bank of New York (including form of 3.5% Senior Convertible Note due 2011)(Incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-3(Registration No. 333-116543) which was filed on June 16, 2004).
4.8	Registration Rights Agreement dated as of April 14, 2004 between deCODE genetics, Inc., J.P. Morgan Securities Inc. and Lehman Brothers Inc., as representatives of the Initial Purchasers (Incorporated by reference to Exhibit 4.9 to the Company's Quarterly Report on Form 10-Q filed on May 10, 2004).
10.1	Form of License from The Icelandic Data Protection Commission (now, The Icelandic Data Protection Authority) to Islensk erfdagreining 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 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).

Exhibit Number	Description
10.5	Agreement on the Collaboration of Fridrik Skulason (FS) and Islensk erfdagreining 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	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).
10.7	Co-operation Agreement between Reykjavik Hospital and Islensk erfdagreining 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).
10.8	Co-operation Agreement between the Iceland State Hospital and Islensk erfdagreining 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).
10.9*	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).
10.10*	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).
10.11*	Employment and Employee Confidentiality, Invention Assignment and Non-Compete Agreement between deCODE genetics, Inc. and Lance Thibault, dated February 1, 2001 and signed on June 20, 2001 (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.12*	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).
10.13+	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).
10.14	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).
10.15	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).
10.16	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).
10.17#	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).
10.18	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).

Exhibit Number	Description
10.19	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).
10.20+	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).
10.21*	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).
10.22+	License Agreement, dated as of October 17, 2003, between deCODE genetics, ehf. and Bayer AG (Incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K filed on March 15, 2004).
10.23+	License and Research Collaboration Agreement, dated February 25, 2004, between deCODE genetics, ehf and Merck & Co., Inc. (Incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K filed on March 15, 2004).
10.24* +	Employment Agreement between Islensk erfdagreining 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).
10.25*	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).
10.26	Stock and Warrant Purchase Agreement dated February 25, 2004, between deCODE genetics, Inc., and Merck & Co., Inc. (Incorporated by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K filed on March 15, 2004).
10.27	Loan Agreement between Vetrargardurinn ehf. and Islandsbanki hf. dated March 12, 2004 Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on May 10, 2004).
10.28*	Agreement on Termination of Employment between deCODE genetics, Inc. and Hannes Smarason dated June 18, 2004 (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on August 6, 2004).
10.29.	Form of Consultancy Agreement between deCODE genetics, Inc. and Goran Ando dated as of December 21, 2004 (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on December 22, 2004).
21.1	Subsidiaries of deCODE genetics, Inc.
23.1	Consent of Deloitte & Touche LLP, independent registered public accounting firm.
23.2	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
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.

**SUBSIDIARIES OF deCODE genetics, Inc.**

1. Islensk erfdagreining ehf., an Icelandic private limited company (English name: deCODE genetics ehf.)
2. MediChem Life Sciences, Inc., a Delaware corporation

**SUBSIDIARIES OF ISLENSK ERFDAGREINING EHF.**

1. Islenskar lyfjarannsóknir ehf., an Icelandic private limited company (English name: Encode ehf.)
2. Islenskar krabbameinsrannsóknir ehf., an Icelandic private limited company (English name: deCODE Cancer ehf.)
3. Vetrargardurinn ehf., an Icelandic private limited company (formerly known as Sturlugata 8 ehf.)

**SUBSIDIARIES OF MEDICHEM LIFE SCIENCES, INC.**

1. deCODE biostructures, Inc., a Washington corporation
2. ThermoGen, Inc., an Illinois corporation
3. Emerald BioSystems, Inc., a Delaware corporation
4. deCODE Chemistry, Inc., an Illinois corporation
5. MediChem Management, Inc., a Delaware corporation

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in Registration Statement Nos. 333-56996, 333-96825 and 333-110905 on Form S-8 and Registration Statement No. 333-116543 on Form S-3 of our reports dated March 14, 2005, relating to the consolidated financial statements of deCODE genetics, Inc., and management's report on the effectiveness of internal control over financial reporting, appearing in this Annual Report on Form 10-K of deCODE genetics, Inc. for the year ended December 31, 2004.

/s/ DELOITTE & TOUCHE LLP

Boston, Massachusetts  
March 14, 2005

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-116543) and Forms S-8 (Nos. 333-56996, 333-96825 and 333-110905) of deCODE genetics, Inc. of our report dated February 27, 2004, except for the fifth paragraph of the footnote titled "Long-Term Debt" for which the date is March 15, 2004, relating to the consolidated financial statements, which appears in this Annual Report on Form 10-K. We also consent to the reference to us under the heading "Selected Financial Data" in this Form 10-K.

**/s/ PRICEWATERHOUSECOOPERS LLP**

Boston, Massachusetts

March 14, 2005

## CERTIFICATION

I, Dr. Kari Stefansson, Chief Executive Officer, certify that:

1. I have reviewed this annual report on Form 10-K of deCODE genetics, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements and other financial information included in this report fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by the report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting

/s/ DR. KARI STEFANSSON

Dr. Kari Stefansson  
Chief Executive Officer

Dated: March 16, 2005

## CERTIFICATION

I, Lance Thibault, Chief Financial Officer, certify that:

1. I have reviewed this report on Form 10-K of deCODE genetics, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements and other financial information included in this report fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by the report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting

/s/ LANCE THIBAUT

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Lance Thibault  
Chief Financial Officer

Dated: March 16, 2005

**CERTIFICATION PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002  
(SUBSECTIONS (A) AND (B) OF SECTION 1350,  
CHAPTER 63 OF TITLE 18, UNITED STATES CODE)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of the registrant certifies, to the best of his knowledge, that the registrant's Annual Report on Form 10-K for the year ended December 31, 2004 (the "Form 10-K") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Form 10-K, fairly presents, in all material respects, the financial condition and results of operations of the registrant.

/s/ DR. KARI STEFANSSON

Dr. Kari Stefansson  
President and Chief Executive Officer

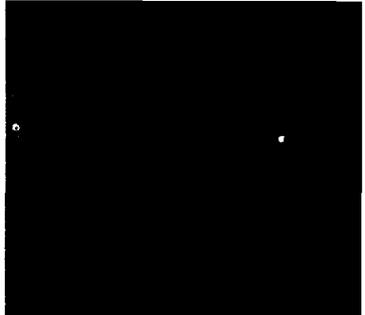
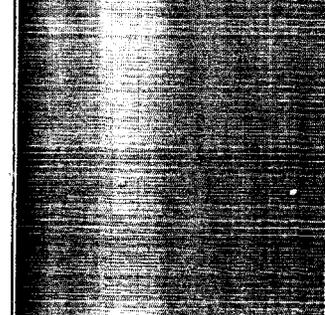
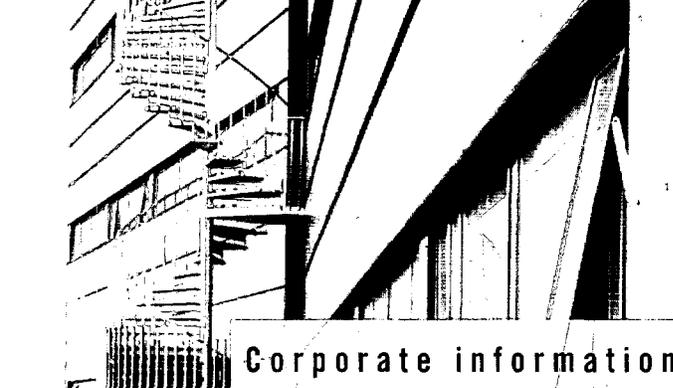
Dated: March 16, 2005

/s/ LANCE THIBAUT

Lance Thibault  
Chief Financial Officer and Treasurer

Dated: March 16, 2005

A signed original of this written statement required by Section 906 has been furnished to deCODE genetics, Inc. and will be retained by deCODE genetics, Inc. and furnished to the Securities and Exchange Commission or staff upon request.



## 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.

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

**J. Neal Armstrong**  
Former Chief Financial Officer  
and Secretary  
Aspect Medical Systems

**Göran Ando**  
Former 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 and Development

**Michael Young**  
Senior Vice President  
Business Development

**Hákon Hákonarson**  
Vice President  
Clinical Sciences

### Corporate Headquarters

Sturlugata 8  
IS-101 Reykjavik  
ICELAND  
Tel +354 570 1900  
Fax +354 570 1903  
[www.decode.com](http://www.decode.com)

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

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

deCODE genetics, Inc.  
Sturlugata 8  
IS-101 Reykjavik  
ICELAND



Sturlugata 8  
IS-101 Reykjavik  
ICELAND  
Tel +354 570 1900  
Fax +354 570 1903  
[www.decode.com](http://www.decode.com)

**Contacts**  
**General enquiries:** [info@decode.is](mailto:info@decode.is)  
**Investor relations:** [ir@decode.is](mailto:ir@decode.is)  
**Business development:** [bd@decode.is](mailto:bd@decode.is)

