

has accelerated. The coming years will bring a wave of new genetics-based treatments and more powerful predictive tests for maladies like cancer, Alzheimer's, and heart disease.

Late last year, for example, the FDA approved a new test that helps doctors determine the most effective medications for treating a particular patient's case of everything from heart disease to cancer. Other new measures can detect genes that can spare women with breast cancer the need to undergo chemotherapy and affect an individual's chances of developing lung cancer. When science detects these genetic sequences, doctors and patients can do a great deal to preempt and prevent the conditions they can cause.

However, the information might also be used to harm. If people run a risk of losing jobs, promotions, or insurance policies on the basis of their genes, many will avoid getting tested and learning about them.

By acting now, we are averting widespread discrimination before it happens—before health insurers are tempted to use powerful new gene technology to decide who gets coverage and who does not.

I urge my colleagues to support the Genetics Information Non-Discrimination Act.

Congress should be forward thinking in the policies we set, instead of waiting until catastrophe looms. This is not a political or partisan issue. It is a matter of civil rights.

In the past, Congress has acted to protect the civil rights of its citizens, most notably through the landmark 1964 Civil Rights Act, the Americans with Disabilities Act, and the Health Insurance Portability and Accountability Act.

Today, we take another critical step forward to protect individuals from the threat of discrimination based on their genes by building on those time-tested laws. The Genetic Information Non-Discrimination Act is comprehensive, reasonable and fair. It is both practical and forward-looking.

Once again, I want to recognize the leadership of Senator SNOWE and Senator ENZI and the broad bipartisan coalition that has finally brought us to this day. I look forward to working with my colleagues in the House to send this to the President's desk for his signature.

Mr. President, does the Senator from Massachusetts wish to say anything quickly?

Mr. KENNEDY. Just for 30 seconds, Mr. President.

The PRESIDING OFFICER. The Senator from Massachusetts.

Mr. KENNEDY. Mr. President, at the outset, I see my chairman, Senator ENZI, who has taken the chair of our committee. I commended him for bringing this legislation up, and I say to you, Mr. Leader, we thank you for

your willingness to schedule this legislation. It is of enormous importance. We have had a good debate and discussion about all of the concerns families are faced with without this kind of protection. We thank you very much, and Senator REID, for getting this legislation up and giving us a chance to express the Senate view on this matter.

The PRESIDING OFFICER. The majority leader.

ORDER OF BUSINESS

Mr. FRIST. Mr. President, for the information of Members, we will be voting in a few moments on the genetic nondiscrimination bill. For the remainder of the day, we will be working on the Lebanon resolution, the committee funding resolution, and some military nominations that have been reported by the Armed Services Committee.

As I mentioned earlier this morning, we will convene tomorrow for the reading of Washington's Farewell Address. However, we do not expect any business to be transacted tomorrow.

We are hoping to begin consideration of the bankruptcy bill that was passed out of the Judiciary Committee today when the Senate returns following the President's Day break. I will be working with the Democratic leader on that agreement and will announce more on that later today.

We have had a good week of work, completing action on the Chertoff nomination, the Nazi War Crimes Working Group extension, the nomination of Robert Zoellick and, in a moment, passage of the nondiscrimination legislation.

Having said that, I hope and expect that this will be the last vote of this week. I want to discuss a few items with the Democratic leader, and we should be able to announce shortly whatever other plans are for later today.

GENETIC INFORMATION NON-DISCRIMINATION ACT OF 2005—Resumed

The PRESIDING OFFICER. The clerk will report the bill by title.

The assistant legislative clerk read as follows:

A bill (S. 306) to prohibit discrimination on the basis of genetic information with respect to health insurance and employment.

Mr. FRIST. I ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second?

There is a sufficient second.

The question is on the passage of the bill.

The clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. McCONNELL. The following Senator was necessarily absent: the Senator from Pennsylvania (Mr. SPECTER).

Mr. DURBIN. I announce that the Senator from Delaware (Mr. BIDEN) is necessarily absent.

I further announce that if present and voting, the Senator from Delaware (Mr. BIDEN) would vote "yea."

The PRESIDING OFFICER (Mr. COLEMAN). Are there any other Senators in the Chamber desiring to vote?

The result was announced—yeas 98, nays 0, as follows:

[Rollcall Vote No. 11 Leg.]

YEAS—98

Akaka	Dole	Martinez
Alexander	Domenici	McCain
Allard	Dorgan	McConnell
Allen	Durbin	Mikulski
Baucus	Ensign	Murkowski
Bayh	Enzi	Murray
Bennett	Feingold	Nelson (FL)
Bingaman	Feinstein	Nelson (NE)
Bond	Frist	Obama
Boxer	Graham	Pryor
Brownback	Grassley	Reed
Bunning	Gregg	Reid
Burns	Hagel	Roberts
Burr	Harkin	Rockefeller
Byrd	Hatch	Salazar
Cantwell	Hutchison	Santorum
Carper	Inhofe	Sarbanes
Chafee	Inouye	Schumer
Chambliss	Isakson	Sessions
Clinton	Jeffords	Shelby
Coburn	Johnson	Smith
Cochran	Kennedy	Snowe
Coleman	Kerry	Stabenow
Collins	Kohl	Stevens
Conrad	Kyl	Sununu
Cornyn	Landrieu	Talent
Corzine	Lautenberg	Thomas
Craig	Leahy	Thune
Crapo	Levin	Vitter
Dayton	Lieberman	Voinovich
DeMint	Lincoln	Warner
DeWine	Lott	Wyden
Dodd	Lugar	

NOT VOTING—2

Biden
Specter

The bill (S. 306), as amended, was passed.

Mr. DOMENICI. Mr. President, I am pleased to have supported the "Genetic Information Nondiscrimination Act of 2005," a bill that will prohibit discrimination based on genetic information with respect to employment and health insurance. This bill represents much cooperation on the part of my colleagues, and I want to thank them for all the hard work done on this important issue.

I am extremely pleased with today's passage of the Genetic Information Nondiscrimination Act as it marks a great milestone for those of us involved in the Human Genome Project. It seems only a short time ago that the Human Genome Project was created as a joint effort between the Department of Energy and the National Institutes of Health. What progress we have made.

In the last 2 years, there have been many events celebrating the completion of maps of the human genome. The genome map has brought a promise of improved health through revolutionary new treatments for illness and disease. The ultimate result of mapping the human genome is a complete genetic blueprint, a blueprint containing the

most personal and most private information that any human being can have. We will now have a wealth of knowledge of how our countless individual traits are determined. And perhaps more important, we will have fundamental knowledge about the genes that can cause sickness and sometimes even death.

Our personal and unique genetic information is the essence of our individuality. Our genetic blueprint is unique in each of us. However, as genetic testing becomes a more frequently used tool, we now must begin to address the ethical and legal issues regarding discrimination on the basis of genetic information. Questions regarding privacy and confidentiality, ownership and control, and consent for disclosure and use of genetic information need to be carefully considered.

An unintended consequence of this new scientific revolution is the abuses that have arisen as a result of our gathering genetic information. Healthy people are being denied employment or health insurance because of their genetic information. By addressing the issue of nondiscrimination, we are affirming the right of an individual to have a measure of control over his or her personal genetic information.

Genetic information only indicates a potential susceptibility to future illness. In fact, many individuals identified as having a hereditary condition are, indeed, healthy. Some people who test positive for genetic mutations associated with certain conditions may never develop those conditions at all. Genetic information does not necessarily diagnose disease. Yet many people in our society have been discriminated against because other people had access to information about their genes, and made determinations based on this information that the individual was too risky to ensure or unsafe to employ.

While the issue is complex, our objective is clear; people should be encouraged to seek genetic services and they should not fear its discriminatory use or disclosure. The Genetic Information Nondiscrimination Act is an important first step toward protecting access for all Americans to employment and health services regardless of their genetic inheritance. There is simply no place in the health insurance or employment sector for discrimination based solely upon genetic information.

GENETIC INFORMATION NONDISCRIMINATION ACT OF 2005

Mr. ENZI. Mr. President, I rise to speak on the promise of genomics.

“Dazzling thrilling astonishing breathtaking”. Even for a group given to hyperbolic speech, the language my colleagues used in this Chamber 2 years ago to describe advances in human genetics is both extraordinarily intense

and factually accurate. Little has changed since 2003. Indeed, little has changed in the 9 years we have been considering this legislation. What remains the same is that the tremendous promise of this fundamental scientific advance remains incompletely realized. I am truly concerned that, at the very time in healthcare that we need innovation the most, we tacitly accept limitations on the application of this “tremendously powerful tool.”

It is vital to understand that we have hurtled forward, over a remarkably short period of time, into an entirely new era of medical practice, one the majority leader believes will be characterized by “advances . . . more dramatic than any . . . I had the opportunity to . . . participate in over twenty years in . . . medicine”. Barely 50 years ago, Drs. James Watson and Francis Crick completed the work begun by the 19th century Austrian monk, Gregor Mendel, when they discovered the double-helix structure of DNA, the substance of which genes are composed. Four nucleotides, a simple combination of phosphate, nucleic acids and sugar, are arranged in an infinite variety of pairs within genes that, in turn, are distributed amongst the 46 chromosomes, which constitute the normal human genome. Operating according to the instructions contained in the DNA, cells in the body produce proteins that control the expression of our individual heredity, e.g. color of hair and eyes, and determine, in part, whether we will be sick or well.

Hardly 2 years ago, Dr. Francis Collins and colleagues at the NIH National Human Genome Research Institute completed mapping of the human genome, determining the exact location of the 3.1 billion base pairs that constitute our “blueprint of life”. It is encouraging to note that, in an era where government programs are beginning to receive the scrutiny the public deserves regarding results, this program completed its Herculean task 2 years ahead of schedule. As representatives of the people, we now have the opportunity and the responsibility to help scientists and clinicians bring this basic research forward to the hospital, the clinic, even to our very workplaces and homes. There are many, both sick and well, who are counting on us to help put that blueprint to use.

How does the science of genetics, simple and straightforward as it may be to the experts, translate into something with meaning to those outside the scientific community: the Congress; and the citizens whom we represent? In particular, why should the rancher in Cody or small businessman in Gillette care? I can think of three ways.

First, our Declaration of Independence states that we are “endowed by our Creator with . . . unalienable rights (including) life, liberty and the

pursuit of happiness”. Clearly, the state of our health can determine how successfully we exercise at least two of those rights. For example, patient care can be much more individualized if it is based on an understanding of the human genome. Current medical practice applies the results from studies obtained in groups of patients to the treatment of the individual; within each group, however, there are patients who respond better or worse to the therapy offered, compared to the response of the group as a whole. The former may be undertreated by standard therapy—they could recover faster or more completely, while the latter may be overtreated—developing complications of therapy that may prove worse than the disease itself. Providers need a way to predict what an individual’s response to treatment is likely to be so that a particular course of therapy can be modified intelligently and expeditiously. That flexibility in treatment, guided by an understanding of the patient’s unique, genetically determined response, should result in better outcomes. Even today, oncologists are treating cancer patients with protocols that take into account genetically determined differences in how individuals absorb, metabolize and excrete drugs. Drug therapy for other diseases should show similar, clinically relevant variability. Similarly, cardiologists caring for patients with hereditary long QT-interval syndrome, a disturbance in heart rhythm that can lead to sudden death in healthy young people during exercise, are beginning to use genetic testing to help select patients for treatment or observation and to choose amongst the therapeutic options available—lifestyle changes, drug therapy and surgery—the ones most likely to be of benefit.

Second, we recognize, based on long experience, that prevention is better than cure, both for the individual and for society as a whole. Early identification of a genetic predisposition to develop a specific disease can be crucial to an effective intervention, one that, quite often, will be less costly, too. For example, cystic fibrosis—an inherited disease producing life-threatening digestive and respiratory symptoms—is the most common, recessively inherited condition afflicting white American children. Scientists have identified over 700 genetic variations of cystic fibrosis, some of which help to define the clinical manifestations of the disease. Treatment programs for cystic fibrosis that emphasize preventive therapies are associated with the best outcomes. Early identification of those at risk and more precise characterization of what those risks will be facilitates a more productive program of monitoring, more aggressive preventive care and focused treatment. Likewise, sickle cell anemia, an inherited abnormality in the production of hemoglobin, the molecule in the blood