committee of transportation professionals, the awards are granted to railroads on the basis of the lowest casualty rate per 200,000 employee hours worked. This formula takes into account the volume of work performed, as well as the number of fatalities, injuries and occupational illnesses confirmed by the Federal Railroad Administration.

The Kansas City Southern Railway Company is a Class I rail system, which operates over 2,728 track miles in 11 central and southeastern states. It was founded in 1887 with the vision of providing the most direct salt water access from the Midwest. Today Kansas City Southern has the shortest route between Kansas City and the Gulf of Mexico, serving the ports of Port Arthur, Texas, New Orleans and West Lake Charles, Louisiana, and Gulfport, Mississippi. Their commitment to safety, along with innovative business practices, makes Kansas City Southern a leader in the rail industry. Their vision of safety encompasses the wellbeing of every employee.

Thriving on the vision and principles of its parent company, Kansas City Southern, Gateway Western Rail is also a formidable force in the rail industry. As one of only four rail gateways along the Mississippi River system in St. Louis, Gateway serves as a major interchange point between eastern and western railroads. It interchanges traffic with every major rail carrier in the United States and has access to the Mississippi River via two barge terminals. Since its inception in 1990, Gateway Western has enjoyed a steady increase in business volume and an outstanding record of safety.

Kansas City Southern Railway and Gateway & Western believe in the necessity of safe worker conditions in saving lives. They cultivate an environment where employees look out for one another and actively participate in improving the safety of all workers, and an environment where employees are jointly responsible for the safety process. Kansas City Southern Railway and Gateway & Western Railway Companies are dedicated to uncompromising safety in meeting the needs of their customers, their employees, and the communities they serve.

Mr. Speaker, I ask you to join me in congratulating Kansas City Southern and Gateway & Western Railway Companies on receiving the Harriman Gold Award. Their commitment to putting safety first in the railroad industry serves as a national model.

EDWARD J. SANTOS MEMORIAL DEDICATION

HON. MARTIN T. MEEHAN

OF MASSACHUSETTS

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 2, 2001

Mr. MEEHAN. Mr. Speaker, I am humbled today to honor an inspiring American. Edward J. Santos, a native of Lowell, Massachusetts will be honored Sunday, May 6, 2001, at a Memorial Dedication, in his hometown at Hosford Square.

Edward Santos was a true American hero. He served his nation and cared for his loved ones as a war veteran, dedicated public servant, an active member of his community and family patriarch.

As a Sergeant in the United States Army, Ed served from July 7, 1942, to December 2, 1945. During his wartime service Ed earned the Combat Infantryman, Badge, Bronze Star Medal, Good Conduct Medal, European African Middle Eastern Theater Campaign Medal, Defense Meritorious Service Medal and the Army Occupational of Germany Medal.

Ed was a very active member of his community, playing a major roll in Lowell politics for more than 40 years. He was a Past Commander of VFW Post 662, a member of the Portuguese American Veterans, Lowell Lodge of Elks, Lowell Veterans Council, Portuguese American Civic League, Portuguese American Center, Holy Ghost Society, National Association of Letter Carriers, Lowell License Commission and a Trustee of the Lowell Memorial Auditorium. He was beloved by the membership of St. Anthony's parish where he was a member of the Holy Name Society.

Since his passing, Ed has been deeply missed by his friends and family including sons Ron, Edward Jr., James and Thomas. Ed and his lovely wife Pauline were the proud grandparents of thirteen wonderful grandchildren.

I am proud to call Edward J. Santos my friend as are the hundreds of lives he touched throughout his exceptional life.

ON THE RETIREMENT OF LINDA M. JOHNSON

HON. STEPHEN HORN

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 2, 2001

Mr. HORN. Mr. Speaker, all of us here know and appreciate the important role that a strong and capable staff plays in accomplishing the work of the House. Obviously, the same is true throughout government and the private sector and that point will be well illustrated next week with a ceremony in Long Beach, California, to honor a person who has long been a quiet but crucial part of our community.

Linda M. Johnson will retire on May 11, after more than 35 years as assistant to the Executive Director of the Port of Long Beach. Across more than three decades of service, Linda has seen the Port grow from a modest operation next to the U.S. Navy base into one of the largest port complexes in the world. Today, the Port of Long Beach is the busiest port in North America with thousands of ships dropping off or picking up merchandise worth hundreds of billions of dollars. To meet the surge in global trade, the Port of Long Beach has been forced to adapt and expand, taking over the Navy shipyard and station and investing heavily in new docks, cranes, railyards and other infrastructure.

Throughout this period of enormous growth, Linda Johnson served as the strong right arm of the port director, managing the endless flow of correspondence, reports, meetings, telephone calls and everything else that goes with a thriving business that must operate under great pressure to meet the demands of global trade. Her quiet efficiency made her a vital partner in the port's management and her unfailing courtesy to coworkers and visitors made her a friend to one and all.

When Linda started at the port in 1965, she planned to work for a year and then go on to college. Instead, she ended up staying for a long, distinguished and rewarding career that has paid great dividends for the Port of Long Beach and our entire community. She will be missed but she will not be forgotten by all of those friends and colleagues who will gather on May 9 to wish her and her husband Bill the very best for a long, active and healthy retirement.

DOUBLING FUNDING FOR THE NIH

HON. GEORGE W. GEKAS

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 2, 2001

Mr. GEKAS. Mr. Speaker, I am pleased to report that the Congressional Biomedical Research Caucus, which we initiated in 1990 to increase awareness and support for basic biomedical research, has commenced its twelfth year of briefings. With my co-chairs, Representatives SONNY CALLAHAN, NANCY PELOSI, and KEN BENTSEN, and over 100 other Members, this bipartisan Caucus has provided nearly 100 briefings where Members and staff have interacted directly with the researchers who lead the world in important scientific discoveries.

This year, we are strongly supporting the fourth step in doubling the budget of the National Institutes of Health over five years. We commend President George W. Bush for including a $2.8 billion increase for the NIH in his FY2002 budget proposal. However, it is our hope that Congress can provide an increase of $3.4 billion in order that the doubling commitment can be achieved within five years.

Why is this so important? What scientific evidence exists that such funding for the NIH will indeed result in better health, improved quality of life and reduction in national health care expenditures?

To answer these questions, in February we invited two distinguished biomedical research scientists to our Caucus to discuss ''The Promise of Biomedical Research.'' First, Dr. Maxine Singer, President of the Carnegie Institution, clearly explained the need to support biomedical research infrastructure—instrumentation, facilities, information technology and strengthening science and mathematics education in primary schools.

Dr. Marc Kirschner, Chairman of the Department of Cell Biology at Harvard Medical School, was the second speaker and his comments follow this statement. We recall that in the magazine ''Science'' (1993), he, along with Drs. J. Michael Bishop and Harold Varmus, recommended that the NIH budget should be increased by 15% per year which would double the budget in five years. These scientists placed their reputations on the line, and I believe we can rely on them. These scientists were also part of a small group who helped us organize and conduct the Biomedical Research Caucus.

The attempt to double NIH funding actually began in 1997, with the initiative of Senators ARLEN SPECTER and TOM HARKIN along with Representative JOHN PORTER. We in the Caucus have continued to support these efforts since that time.

I believe that the clear and compelling remarks presented to the Congressional Biomedical Research Caucus by Dr. Singer and Dr. Kirschner will be helpful in our deliberations concerning this year's budget priorities.

TRANSCRIPT OF REMARKS BY MARC KIRSCHNER, PH.D., BEFORE THE CONGRESSIONAL BIOMEDICAL RESEARCH CAUCUS, FEBRUARY 28, 2001

Thank you for coming today. It is my hope and Dr. Singer's hope that all of you can become as knowledgeable as possible about medicine and science at the beginning of the 21st century. Science affects us in the present and in the future—our personal lives, our economic well-being and even our national defense against some fiendish new enemies. Medical issues often lurk beneath the surface and then explode like the AIDS epidemic, mad cow disease or hoof-and-mouth disease in Europe; new issues reach prominence in the news and confuse many of the public like genetic engineering of crops and stem cell biology. The chronic issues of cancer and heart disease and depression also remind us of our need for a better defense against disease. Planning in science often seems intuitively clear to scientists, and yet even for us the path is very convoluted. In my own experience, many years ago we discovered one of the major proteins that goes awry in Alzheimer's disease—but we weren't working on Alzheimer's disease at the time; we were working on cell division and cancer. So I can understand that it is often difficult to understand what to do and what priorities to set. Science is complex. Every time I try to explain what I do to my wife and my mother, I have to start all over each time. But there is hope. My kids seem to understand much better. Yet despite these difficulties, progress in medicine is astonishing and it is very clear to all of us that our expectations for tomorrow should be considerable.

I will try to briefly review where we are and what we need and what you can do to help. Scientists in general have faith in rationality. We feel that if you understand the issues—the problems, the accomplishments, the needs and the true state-of-affairs in science that you and the American people will make the right decisions. It is for that reason that the goal of the Caucus has always been education. From that policies should naturally flow.

WHERE ARE WE?

February 12 was the announcement of the human genome sequence by an international consortium led by the United States and by private efforts built heavily on exploiting the openness and accessibility of that public investment. We now have a list of parts. Some people think that 30,000 is a small number, but this is completely misleading. We are really a gigantic Lego set with 30,000 different pieces, but the number of pieces is a million, billion, billion—so we are pretty complicated—and the design of even the simplest organism is beyond our present understanding. We know some of our problems lie in faulty pieces—cystic fibrosis, sickle cell anemia, muscular dystrophy. Perhaps there are simple signals for adult onset diabetes and schizophrenia, but they are not likely to be single faulty pieces, maybe instead two or more pieces when they come together reinforce their weaknesses—we hope to learn that soon. Some are diseases of systems, such as rheumatoid arthritis and cancer. Some are foreign enemies—viruses and bacteria—AIDS and tuberculosis. Some things may be easy to figure out, some will turn out much harder than we think.

A few years ago, Alzheimer's disease seemed hopeless. There were no animal models. There was no convincing epidemiology—no smoking gun as we had in polio. It was a spordiac disease of late and variable onset. Today we have an exquisite idea of the cause and we have many promising targeted pharmaceutical interventions.

In some ways it now seems like it could be a relatively easy disease to treat. It can be diagnosed much earlier by MRI. Also, if it takes seventy years to appear—all we have to do is slow it down to 50% so the age of onset is 140. There are not many things where a two-fold change is a complete cure.

Well, I know that this is a Congress where the usual situation is to bring you problems that no one can solve. You have to work on those, too. But medical science is something that you can work on and have a big effect. You have an opportunity today that is more significant in many ways, but akin to the Eisenhower Interstate Highway Program of the 1950s. Like that program, the country can survive without it. But like that program, the effects are likely to be profound, with many long-term and unintended benefits. Whatever the state of the finances, today, the circumstances of science tells us that this is the time to invest. The progress in biomedical science will affect every person equally in this country and on our planet (if we take care to distribute its largesse fairly). But it will take a long-term infusion of funds. The plans to double the NIH budget will have to be followed by a long-term plan of increased funding that will allow us to realize the value of investment that you have already paid for and which will allow dividends to be paid to all of our children, and their children. I know a long-term view is difficult for a Congress that is elected every two years and has annual budgets. We all realize that things may intervene. But progress is best achieved with a long-term budgetary plan. Now, let me return to education, starting with some of today's important buzzwords.

THE GENOME

What did we learn from the genome—not much—yet. What we will learn is unimaginable. Genomics is the most revolutionary technology in biology today. It will produce hundreds of new targets for intervention in disease, new understanding of disease itself, new methods for diagnosis, and also in a very profound way a new appreciation of life. It is not and should not be the beginning of human engineering. We study biology to appreciate life, to preserve it and to value it. Despite all the hype about gene technology, scientists are happy working around the margin to protect what we have, not to restructure it. Also, about the 30,000 genes, most of which are the same in frogs—that is not the main point of the genome. The genome contains the instructions on how to put these genes together, how much to make, when to make things, and where to make things. With enough diligence we eventually might have found most of the 30,000 genes by other means; only the genome sequence tells us about the instructions.

CLONING

Cloning is the most common word in a biomedical scientist's vocabulary and the most misunderstood by the average citizen. In scientific discourse it never means cloning people. Usually it means isolating pieces of DNA for study. Sometimes it means isolating a line of cells that are genetically identical from animals, human beings, or often tumors. Sometimes it means making genetically identical animals which will serve as a model for disease. None of these uses raises ethical problems.

STEM CELLS

Stem cells are the great promise of regeneration. Most stem cell biology carries with it no ethical problems. There are skin stem cells, bone marrow stem cells, stem cells for muscle. But we don't really have what we need—we need brain stem cells for spinal cord and brain injury; we can't get heart muscle to regenerate—we cannot get kidneys to regenerate as we can liver.

The hot button issue is around stem cells derived from discarded human eggs or from human fetuses. For some people this is an ethical issue and if they truly understand the issues and still feel opposed we have to respect that, but not necessarily accept their judgment. The desire to work with embryonic stem cells is that they, in principle, can regenerate all tissues and we can learn from them how to develop applications that may in the future allow us to use other sources of material. From the study of human stem cell biology could come treatments for Parkinson's disease and for type I diabetes. The hope for lifting these terrible burdens on our loved ones has to be weighed against the ethical objections of some. The decision is not simple but at least we can try to understand the issues in concrete terms.

ANIMAL EXPERIMENTATION

Today we are learning more and more from fruit flies, worms and cultures cells—even from computers without doing a wet experiment but none of this will benefit human beings without animal experiments, mostly in rodents, less often in primates. The vast majority of these experiments cause no discomfort, but some do. It is hard to study regeneration from stroke without inflicting damage and yet most of us who have seen the devastating effect of stroke on our loved ones are willing to sacrifice animals. Scientists will do everything to avoid the cost, difficulty and discomfort of animal experimentation. But we all have to accept the fact that our ability to contribute to biomedical science will be in proportion to the amount of animal use. Anyone who thinks otherwise is not realistic. They may wish it were not otherwise—I may wish it were otherwise—but the simple fact is that we will not benefit from our discoveries, we will not cure cancer or heart disease, or manic depression, by making animal experimentation too difficult or too expensive.

What are the big targets for the NIH? Here are seven examples of them:

1. Using the genome to find targets to attack diseases like cancer.
2. Immunology everything from type I diabetes to autoimmune diseases to cancer therapy to allergy.
3. Regeneration—finding the signals to stimulate our bodies to repair itself—I include stem cell biology here.
4. Mental illness, mental retardation as organic diseases, and how to treat them much more specifically.
5. Obesity and type II diabetes—going beyond failed attempts at self-discipline.
6. Alzheimer's disease and aging—finding not a cure but a way to slow things down.
7. Infectious diseases—here the genomes of all the pathogens have increased our targets by 100-fold but we must always be diligent.

This is just a sampling.

HOW MUCH SHOULD MEDICAL RESEARCH COST?

We should pay no more money than can be used wisely. The NIH is not perfect; you need to keep our oversight of NIH intramural and extramural spending. But this does not mean a failed experiment is wasted money. The biggest failure is not doing an experiment that could make a difference. The biggest enemy in science is timidity, not overspending.

We should spend as much as we can to speed up the application of science to health. Yet to work on application before we understand the processes can be very inefficient.

Would we be better off today if we had spent our money on better iron lungs, rather than on a vaccine against the polio virus?

Is this science cost-effective? Maybe this is not the right question, but we can try to answer it anyways.

If we are truly successful, things should be cost-effective. It took years to make a Hemophilus influenza type-B vaccine—but

this major cause of meningitis, with its concomitant death and hearing loss in young people is now completely preventable.

Surgery for gastric ulcers was an expensive and risky business. Today we control the disease with a cheap antibiotic. Yes, there were major costs in the discoveries, but the savings accrue forever. If one takes a long-term view, all of this should make sense financially.

Four years ago before budget surpluses—the long view was developed with strong bipartisan support—in Congress, to double the NIH budget. The expectations of science are even higher today than there were four years ago. I hope you can complete that effort and after that, renew the investment.

Pardon me for my pitch for joining the Caucus. I do appreciate the support of Representative Gekas and all the members of the Caucus for being passionate advocates over the past years and for serving to educate the Members and their staff. I am not sure it gained them votes—but it was the right thing to do. It has meant a lot to scientists, particularly the young scientists who have come here from all over the U.S. They recognize the deep and thoughtful support that you have given. That means a lot. We all realize that you deliberate over many problems—it is just that much more reassuring that you have taken the time to understand these complex issues.

One last thing, together we have built the greatest scientific establishment in the world. Today, as I travel the country, I find first-class research done all over. Important discoveries are coming from laboratories in all of our states. Mao Tse-Tung said ''let a thousand flowers bloom''—ignoring his politics for a moment we would have to say that it was a good slogan for science. There is no guaranteed path to discovery—but the opportunity to take chances—the path to discovery that you have supported—is the best strategy to guarantee that we employ every tool and use all our ingenuity to improve the health of the world.