

One of the lessons of September 11th . . . is that what happens overseas matters here at home. We face an enemy that can only recruit when they find hopeless people, and there is nothing more hopeless to a child who loses a mom or dad to AIDS to watch the wealthy nations of the world sit back and do nothing.

Former Secretary of State Condoleezza Rice was equally blunt about the stakes involved. She said:

We don't have an option to retire, to take a sabbatical from leadership in the international community and the world. If we do, one of 2 things will happen. There will be chaos, because without leadership there will be chaos in the international community, and that is dangerous. But it's quite possible, that if we don't lead, somebody else will. And perhaps it will be someone who does not share our values of compassion, the rights of the individual, of liberty, and freedom.

I could not agree more, and I hope other Senators appreciate what is at stake. Just as past generations rallied to meet the formidable challenges of the Great Depression, the Nazis, and the Cold War, we will bear responsibility if we fail to meet the challenges of today.

The budget for diplomacy and development includes funding for our embassies and consulates that assist the millions of Americans who travel, study, work and serve overseas.

It pays our contributions to U.N. peacekeeping missions that do not require the costly deployment of U.S. troops, UNICEF, the World Health Organization, the International Atomic Energy Agency, the operations of our NATO security pact, aid for refugees who have fled wars or natural disasters, and to prevent the spread of AIDS, the Asian Flu, and other contagious diseases that threaten Americans and people everywhere.

There are many other programs that promote U.S. exports, support democratic elections, combat poverty, and help build alliances with countries whose support we need in countering terrorism, thwart drug trafficking, protect the environment, and stop cross-border crime.

We do this and a lot more with less than 1 percent of the Federal budget, yet it is a crucial investment in our national security.

It also is no wonder that other countries—our allies and our competitors—are spending more each year to project their influence around the world, and to compete in the global marketplace. Great Britain's conservative government is on a path to increase its international development assistance to .7 percent of its national budget, compared to .2 percent for the United States. Yet the Republican majority in the House of Representatives proposes to slash funding for these programs to pre-2008 levels.

Our leadership is being challenged unlike at any time since the Cold War. In Latin America, which is a larger market for U.S. exports than any other region except the European Union, our market share is shrinking while Chi-

na's is growing. It is the same story everywhere.

There is simply no substitute for U.S. global leadership. The world is changing, and we cannot afford to retrench or to succumb to isolationism. Funding that enables us to engage with our allies, competitors, and adversaries, while an easy political target, helps us to meet growing threats to our struggling economy and our national security.

I strongly support this budget and have fought to protect it for years. I also know there are competing needs and that we have to eliminate waste.

We need to support what works, and stop funding what does not. Too often, government bureaucracies continue funding programs that fail, and that needs to stop. Billions of dollars provided to high priced contractors and consultants for poorly conceived, wildly extravagant, unsustainable efforts to rebuild Iraq and Afghanistan have been wasted or stolen. This has further damaged the public's opinion of foreign aid.

The bill that I and Senator GRAHAM recommended to the Appropriations Committee on September 21 and that was reported by a bipartisan vote of 28-2 is \$6 billion below the President's budget request. It scales back most Department of State and U.S. Agency for International Development operations and programs and will force them to significantly curtail planned expenditures.

But the House bill cuts far deeper, and these are the cuts that President Bush and Secretary Rice warned about. There are unmistakable signs that our global influence is already eroding. It is not preordained that the United States will remain the world's dominant power. As former Secretary Rice said, "if we don't lead, somebody else will."

I doubt there is a single Member of Congress who, if asked, would say they don't care if the United States becomes a second or third rate power. They expect the United States to lead, to build alliances, to help American companies compete successfully, and to protect the interests and security of its citizens.

You can't have it both ways. You can't expect others to follow if you can't lead, and you can't lead if you don't pay your way. This budget is a fraction of the Federal budget, yet it is a far cry from what this country should be investing.

We need to wake up, to stop acting like these investments don't matter, that the State Department isn't important, that the United Nations isn't important, that what happens in Brazil, Russia, the Philippines, Somalia, or other countries doesn't matter, and that global threats to the environment, public health and safety will somehow be solved by others.

Our budget for foreign operations already has gone through deep budget cuts, with more to come. But the

American people deserve to be told that slashing, disproportionate cuts to these programs would have no appreciable impact on the deficit, and it would end up costing our country far more in the future.

2011 DAVIDSON INSTITUTE FELLOWS

Mr. GRASSLEY. Mr. President, today, I have the great honor and pleasure to recognize this year's Fellows for the Davidson Institute for Talent Development. This year, 18 young people under the age of 18 have been awarded scholarships of \$50,000, \$25,000, or \$10,000 for having demonstrated superior ability and achievement and having completed a significant piece of work in the areas of science, music, literature, mathematics, or technology. I would like to take this time to introduce each of these scholars and the various projects they have undertaken.

In the area of science, we have eight young students with remarkable projects that have contributed to scientific progress. Among this group of scholars is Shalini Ramanan. A 17-year-old young woman from Richland, WA, Shalini Ramanan worked with a natural dietary component of the spice turmeric called BC to test its effectiveness in treating cardiovascular diseases. Through cell migration assays and western blot techniques, she discovered that BC inhibited platelet-derived growth factor (PDGF)-induced vascular smooth muscle cell migration and signaling. Using bioinformatics, she identified target genes connected with signaling pathways. PDGF-stimulated cell-migration and proliferation are key pathological events in a variety of diseases including atherosclerosis and cancer. Her studies may help design and characterize novel drug molecules with clinical applications.

A 17-year-old young man from Mahopac, NY, Jayanth Krishnan developed an approach to infer regulatory mechanisms governing changes in gene expression and identified possible proteins that induce cancer. By creating a web interface that could predict transcription factors for dysregulated genes, and mathematical models using MATLAB, he was able to predict proteins that are correlated with certain cancer families. Using this information, he calculated several combinations of drugs, for 60 different cancers, that have the potential to counteract the inducing agents and better guide therapeutics.

Lucy Wang, a 17-year-old young woman from Garnet Valley, PA, developed a predictive model to detect adolescent depression with an overall correct classification of 83.66 percent. Untreated depression is the No. 1 cause of suicide and the third leading cause of death among teenagers. Using factor analysis and logistic regression, she focused on quantifying variables that may lead to adolescent depression, including student self-reported experiences and demographics. Lucy's model

will offer a robust instrument for school psychologists to evaluate the risk of future depression.

A 17-year-old young man from Houston, TX, Sunil Pai constructed an inexpensive, nanotechnology-based system to determine quantum energies of superoxide. By examining oxygen in the liquid phase instead of the gas phase, his potentiostat system can determine the quantum structure for the electron attachment reaction of oxygen to superoxide. The determination of oxygen's physical properties is essential to fully understanding the role oxygen and many free radicals have in cell processes. This experimentation method may establish other molecular properties that will offer new insights into biological and environmental processes.

Caleb Kumar, a 15-year-old young man from Blaine, MN, developed an algorithm that automates the diagnosis of bladder cancer. Bladder cancer is on the rise with more than 71,000 new cases in 2009. By first identifying indicative bladder cancer cellular characteristics, Caleb programmed morphometric algorithms to quantitatively examine the bladder cell images, and then engineered a Java neural network that differentiates cancerous cells from normal cells based on shape, color and curvature. Caleb's software is accurate, quick and inexpensive compared to current methods, and has the potential to provide faster, cheaper and more precise diagnoses of cytological diseases.

A 17-year-old young man from Bloomfield Hills, MI, Siddhartha Jena demonstrated that the immediate effect of elevated cholesterol is dysfunction of active water, oxygen, and carbon dioxide transport by the red blood cells. Using a spectrofluorometer and Zeta Sizer, he showed that exposure of red blood cells to two compounds: ONO-RS-082 and glyburide, results in an amelioration of cholesterol's detrimental effects. Results from his work broaden the understanding of one of the most significant health risks facing our society, and the possible mechanism for its future treatment and management.

Benjamin Clark, a 15-year-old young man from Lancaster, PA, determined the frequency at which M stars form close binary star systems using spectroscopic data from over 39,000 M dwarf stars. Using the Sloan Digital Sky Survey, SDSS, Benjamin designed a methodology to use the extremely large, but low resolution and signal-to-noise ratio database, to calculate the close binary fraction. Star formation has long been an open question in astrophysics and this data can be used to test theories of how this process occurs.

A 16-year-old young woman from Lancaster, PA, Marian Bechtel designed a seismo-acoustic method for detecting landmines. Approximately 70 million landmines plague 80 countries worldwide, claiming one victim every

22 minutes. With Marian's method, two high-sensitivity, non-contact microphones are swept above buried landmines that resonate in response to a remote seismic source. The recorded sound is noise-cancelled in real-time, creating a characteristic, audible null in the noise-cancelled waveform that isolates the mine's location. This efficient and inexpensive method could make important contributions to humanitarian demining.

Raja Selvakumar, a 15-year-old young man from Alpharetta, GA, developed the gastro microbial fuel cell, GMFC. Based on the microbial fuel cell, the GMFC generates electricity using gastrobacteria, to be used to power capsular nanobots. Current lithium ion batteries in biomedical capsular nanobots are not able to sustain power for long periods of time; the GMFC has the potential to solve this problem. The GMFC-powered capsular nanobot can play an important role in treating gastrointestinal diseases through intracellular diagnosis and surgery.

In the area of mathematics, there are three young people who I would like to recognize at this time. Matthew Bauerle, a 16-year-old young man from Fenton, MI, outlined how the Newton direction can be computed by solving a weighted linear least squares problem. When fitting a model to data, such as a line to a set of points, the least squares method is currently the most popular technique. Matthew's work focused on minimizing the L1 norm of the error which is the sum of the absolute values of the individual errors. Matthew's work has potential in the medical imaging and scanning fields, as well as facial recognition and fluid dynamics simulations.

A 16-year-old young woman from Carmel, IN, Rebecca Chen studied a generalized version of the Yang-Baxter equation. The Yang-Baxter equation provides a systematic method for discovering braid group representations, important in topology and quantum information science. Using algebraic computations and computer numerical checking, she classified three families of 8x8 matrix solutions to the generalized Yang-Baxter equation. These solutions provide a way to generate braiding quantum gates needed in quantum computing, and contribute to the ongoing effort to build a large-scale quantum computer, bringing advances in fields as far ranging as materials sciences and cryptography.

Anirudh Prabhu, a 16-year-old young man from West Lafayette, IN, established the first nontrivial analytic lower bounds for odd perfect numbers. The search for odd perfect numbers is one of the oldest unsolved problems in mathematics. Many upper bounds for odd perfect numbers are established, however, no nontrivial analytic lower bounds had been reported prior to Anirudh's work. By narrowing the gap between analytic upper and lower bounds, his work suggests an approach

for proving the nonexistence of odd perfect numbers and could contribute to data encryption technology.

Two remarkable young people received awards for their technology projects. A 16-year-old young man from Columbia, SC, Arjun Aggarwal created GNut-III, an anthropometric interactive robot with vision, intelligence and speech. He found the lack of an economically efficient and functional human robot has prohibited researchers from continuing to expand the field of robotics. To counter this, the GNut-III is economically efficient and functional for testing robotic algorithms. In addition to the GNut-III, Arjun has outlined a scattered open source community to work on a standardized platform that could transform robotics in the same way it has transformed computing.

A 16-year-old young woman from Rochester, MN, Cheenar Banerjee developed a method for emotion detection by computers. It remains a challenge for computers to recognize and respond correctly to the emotional states of an interactive user. After removing some facial detail by converting facial images to black-and-white sketches, Cheenar used fractal analyses to differentiate among emotions using the fractal dimensions. This process has the potential to be simpler, cheaper and more effective than current techniques of emotion detection by computers.

In the area of music, I would like to recognize three more scholars. A 14-year-old young woman from Seattle, WA, Simone Porter, in her violin portfolio, *Performance as Soundtrack of Process and Identity*, examines the progression of performance preparation, from the development of technique and interpretation, to the emergence of a professional identity. This process led her to comprehend the transformative, inspirational and transcendent potency music possesses. Through performance, Simone believes music has the potential to aid our society, and help achieve a kinder, more tolerant attitude toward ourselves and our natural environment. Simone was a featured performer on PBS' "From the Top at Carnegie Hall."

A 16-year-old young woman from Gates Mills, OH, Arianna Körting, in her portfolio, *Celebration of Life through the Piano*, showcased Haydn, Ginastera and Liszt. Through the piano, she hopes to bring audiences into the lives of the great composers to experience their humor, tenderness and brilliance. She believes music has the power to transform space and time because it has been a constant presence even through the most difficult moments in history. Arianna has been featured on NPR's "From the Top," and started The Animato Project, an interactive program of classical music for elementary school children.

Reylon Yount, a 16-year-old young man from San Francisco, CA, created a yangqin, or Chinese hammered dulcimer, portfolio that has contributed

to the preservation of Chinese music, to the introduction of Chinese music to people in the United States, and to the overall interconnection of the music world. His work attempts to take people past the conventional shapes and forms of Western music, helping them appreciate the universality of art. He hopes that such cross-cultural music will build a deeper connection between the East and West, and inspire people to love all music.

And finally, I would like to introduce Bonnie Nortz, a 17-year old young woman with superior achievement in the area of literature. Bonnie's portfolio, *Run and Run and Run*, explores relationships, identity, materialism, oppression and emotion, and covers topics as broad as tourism, grammar, dreams, cartography, winter and even pre-calculus. Her goal was to find the extraordinary in the mundane, the pure in the imperfect, and to describe that moment of awakening when everything is just the way it should be. Bonnie hopes to teach others how to go through life with an everlasting energy and curiosity and to appreciate the fantastic emotional and intellectual complexity that comprises our human existence.

I have long said that America's gifted and talented students possess remarkable potential for our great Nation. These 18 young individuals have demonstrated more than potential. They have already made significant contributions to their fields and our society in their short lives and one can scarcely begin to imagine how much they will contribute to their fields and society in the years to come, thanks in no small part to the encouragement of the Davidson Institute as well as their family, friends, and mentors. These young men and women are an inspiration and a reminder that if we fully support our most talented young people, we can look forward to a bright future.

ADDITIONAL STATEMENTS

RECOGNIZING MILLS AND MILLS LAW OFFICE

• Ms. SNOWE. Mr. President, today I recognize Mills and Mills Law Office, a small family-owned law firm that has provided vital legal services to the people of western Maine for 100 years.

The Mills family name has long been synonymous with the Farmington area. Sumner Mills began a small law firm there in May of 1911, after moving his family from the coastal town of Stonington, where he had previously opened a small law practice in 1904. Throughout the years, Mills and Mills has offered its customers a wide range of legal services, and at present primarily focuses on estate planning, business issues, and real estate. The company has previously offered fire and casualty insurance. The firm currently has nine staff members, includ-

ing Paul Mills, the grandson of the founder, who joined the firm in 1977 and is now a senior attorney.

On August 26, 150 members of the Farmington community gathered at the law office to celebrate its 100th anniversary. The date was selected because it marked what would have been the 100th birthday of Peter Mills, Sumner's son and longtime attorney at Mills and Mills. Attendees reminisced about the law firm's storied history, and the event provided an opportunity to look forward to the office's future of helping the residents of western Maine.

Today, I also recognize the long-standing commitment and vast contributions of the Mills family to public service in the State of Maine. Peter, who joined Mills and Mills in 1940, was a member of the Maine House of Representatives for three terms, as well as the State senate for two terms. He also served as a municipal court judge, and was later U.S. attorney for Maine for 16 years under three Presidents. His father had been a State legislator in Hancock County before moving to Farmington.

Many of Peter's children have gone on to follow in their father's and grandfather's footsteps. Janet Mills served in the Maine House of Representatives, and later became our State's first female attorney general. Peter Mills III, a former State senator from Somerset County and twice a candidate for Governor, now serves as executive director of the Maine Turnpike Authority. And Doctor Dora Anne Mills is the former director of the Maine Center for Disease Control and Prevention.

Three generations of the Mills family have worked tirelessly to serve the community in Franklin County and throughout western Maine. With a passion for the law and a dedication to public service, the Mills family has left an indelible mark on Maine history. Mills and Mills remains a tribute to the critical work begun 100 years ago by Sumner Mills. I thank the entire Mills family for all of their efforts, and wish them and everyone at Mills and Mills success in their future endeavors.●

MESSAGE FROM THE HOUSE

At 10:09 a.m., a message from the House of Representatives, delivered by Mrs. Cole, one of its reading clerks, announced that the House has passed the following bill, in which it requests the concurrence of the Senate:

H.R. 1343. An act to return unused or reclaimed funds made available for broadband awards in the American Recovery and Reinvestment Act of 2009 to the Treasury of the United States.

ENROLLED BILLS SIGNED

The President pro tempore (Mr. INOUE) announced that on today, October 6, 2011, he had signed the following enrolled bills, previously signed by the Speaker of the House:

H.R. 771. An act to designate the facility of the United States Postal Service located at

1081 Elbel Road in Schertz, Texas, as the "Schertz Veterans Post Office".

H.R. 1632. An act to designate the facility of the United States Postal Service located at 5014 Gary Avenue in Lubbock, Texas, as the "Sergeant Chris Davis Post Office".

MEASURES REFERRED

The following bill was read the first and the second times by unanimous consent, and referred as indicated:

H.R. 1343. An act to return unused or reclaimed funds made available for broadband awards in the American Recovery and Reinvestment Act of 2009 to the Treasury of the United States; to the Committee on Commerce, Science, and Transportation.

MEASURES PLACED ON THE CALENDAR

The following bill was read the second time, and placed on the calendar:

S. 1660. A bill to provide tax relief for American workers and businesses, to put workers back on the job while rebuilding and modernizing America, and to provide pathways back to work for Americans looking for jobs.

EXECUTIVE AND OTHER COMMUNICATIONS

The following communications were laid before the Senate, together with accompanying papers, reports, and documents, and were referred as indicated:

EC-3438. A communication from the Assistant Secretary, Bureau of Legislative Affairs, Department of State, transmitting, pursuant to the Arms Export Control Act, the certification of a proposed amendment to a technical assistance license agreement for the export of defense articles, including, technical data, and defense services to Norway and Canada for the service life extension of the P-3 aircraft in the amount of \$100,000,000 or more; to the Committee on Foreign Relations.

EC-3439. A communication from the Assistant Secretary, Bureau of Legislative Affairs, Department of State, transmitting, pursuant to the Arms Export Control Act, the certification of a proposed amendment to a technical assistance agreement for the export of defense articles, including, technical data, and defense services to Japan for the export and assembly of the Vertical Launch ASROC (Anti-Submarine Rocket) (VLA) system in the amount of \$100,000,000 or more; to the Committee on Foreign Relations.

EC-3440. A communication from the Assistant Secretary, Bureau of Legislative Affairs, Department of State, transmitting, pursuant to the Arms Export Control Act, the certification of a proposed amendment to a manufacturing license agreement to include the export of defense articles, including, technical data, and defense services to the United Kingdom for manufacture, assembly, modification, integration, repair and overhaul of Vertical Gyros, Rate Gyros, Attitude Heading Reference Systems, Compass Systems, Azimuth Gyros and Attitude Indicators; to the Committee on Foreign Relations.

EC-3441. A communication from the Assistant Secretary, Bureau of Legislative Affairs, Department of State, transmitting, pursuant to the Arms Export Control Act, the certification of a proposed amendment to a manufacturing license agreement to include the export of defense articles, including, technical data, and defense services to Australia