

FY 2001 R&D BUDGET
Dr. Neal Lane's Remarks
February 7, 2000

Welcome. Thank you for joining us today. I'm sure most of you are acquainted with the individuals here with me on stage, but just in case, I would like to introduce:

- Secretary Bill Richardson, of the Department of Energy
- Mr. Dan Goldin, Administrator of NASA
- Dr. Rita Colwell, Director of NSF
- Dr. Ruth Kirschstein, acting Director of NIH
- Dr. Frank Fernandez, Director of DARPA
- Mr. Elgie Holstein, Associate Director of OMB for Natural Resources, Energy, and Science

The President and Vice President have proposed a historic science and technology budget to Congress for FY 2001, and I can hardly wait to get up to the Hill to present it. Seriously, I cannot emphasize enough how dedicated the Administration is to working with Congress to see this R&D budget enacted. I believe this budget will generate the bipartisan momentum to put our R&D portfolio on an optimum investment trajectory.

\$3 Billion Science & Technology Initiative

As you heard the President say in his CalTech speech, he has proposed a \$2.9 billion Science and Technology Initiative that addresses three critical national concerns. First, it funds the creative efforts that maintain our leadership in science and technology. Second, it funds the stream of innovation that ensures continued prosperity in the 21st century. Finally, it begins to restore the balance between biomedical research and the rest of our R&D portfolio – a balance that underlies progress toward our national goals of promoting long-term economic growth that creates high-wage jobs; sustaining a healthy, educated citizenry; enhancing national security and global stability; and improving environmental quality.

With this initiative, the 21st Century Research Fund grows by 7% in FY 2001. Elgie Holstein, Associate Director for Natural Resources, Energy & Science at OMB, will give you more information about the Fund and about the overall budget details in just a moment. He will be followed by Secretary Richardson, Dr. Kirschstein, Mr. Goldin, Dr. Colwell, and Dr. Fernandez, who will give you a sense of the breadth of research that is going to be funded under the 21st Century Research Fund. Then I'll come back for a few final words and Q&A. Elgie . . .

[Elgie Holstein provides OMB's overview of the entire FY 2001 Budget, and overview of S&T numbers]

[After Elgie is done he introduces Secretary Richardson. Kirschstein, Goldin, Colwell, and Fernandez follow each other without introductions. Each gave 5 minute overviews of their agency's budget.]

[Dr. Lane resumes the podium after Dr. Fernandez's remarks.]

Thank you all very much. The President can ask the Congress and the American people to make this investment in S&T because of your work and the outstanding quality of your agencies' research.

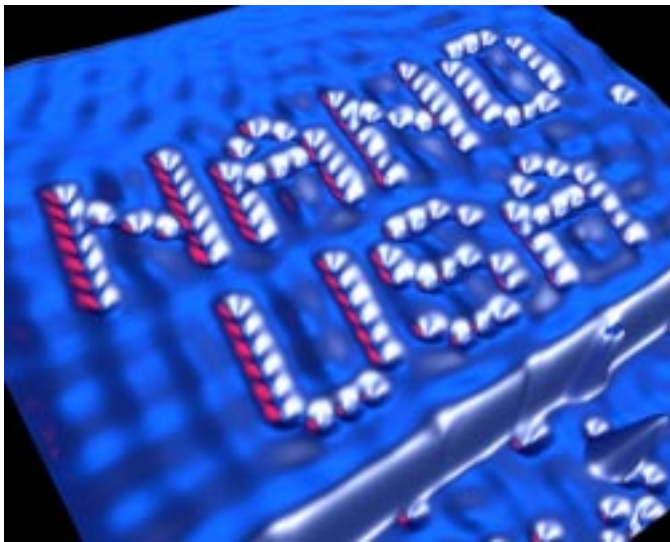
I think you can tell from these agency presentations that this budget provides increases for research in the core disciplines of science and technology across the board. As the President said, "We have to have a balanced research portfolio, because the research enterprise is increasingly interdependent." He got it exactly right, and his deeds match his words.

Since details on agency and specific programs will be available at the agency briefings, I'm going to take a few minutes now to describe two of our interagency investment priorities before we move on to Q & A.

Nanotechnology

This year's budget proposes a bold new initiative in nanotechnology research. This effort, known as the National Nanotechnology Initiative, will provide a \$225 million increase in the emerging fields of nanoscience and nanoengineering – nearly doubling the current federal investment.

We now have at least one answer to Richard Feynman's question of 40 years ago, "What would happen if we could arrange the atoms one by one the way we want them?" We can make cool images like the "NANO USA" image behind me,



which is made of 112 carbon monoxide (CO) molecules positioned on a copper surface using a scanning tunneling microscope at IBM's Almaden Research Center, San Jose, Calif. Each letter is 4 nanometers high by 3 nanometers wide, and it would take about 250 million of them to fill the cross section of a human hair. With our national investment in nanotechnology, we believe we can come up with even better answers to Feynman's questions.

Roughly 70% of this new funding proposed under the National Nanotechnology Initiative will go to university-based research. These investments will help meet the growing demand for workers with nanoscale science and engineering skills.

The Administration believes that nanotech will have a profound impact on our economy and society in the early 21st Century, perhaps comparable to that of information technology or cellular, genetic, and molecular biology.

Information Technology R&D

This year's budget also provides a \$600 million increase in information technology research.

Agencies will continue to support the basic goals established in the FY 2000 initiative;

- Long-term information technology research that will lead to fundamental advances in computing and communications;
- Investments in advanced computing for science, engineering and the Nation; and
- The economic and social implications of the information revolution and training the IT workforce, with a special emphasis on ensuring that all Americans can benefit from these technologies.

Information technology has the power to reshape every business, redefine every job, and change the texture of our lives.

A Bold Course of Prosperity Through Discovery

To sum up, it has been a remarkable year for science. All of the millennial lists produced by the popular press listed advances in science and technology as some of the top achievements during the last century. *Time* magazine named Albert Einstein "Man of the Century." And this budget, which proposes a bold Science and Technology Initiative, could be one of the President's most important gifts to future generations.

The FY 2001 budget for R&D continues the important R&D trends established by the President and Vice President:

- This is the eighth consecutive year that the President and Vice President have proposed increased investments in civilian research and development. Civilian R&D is up 43% since they have taken office.
- It boosts funding for basic research by 7% -- a \$1.3 billion increase. Funding for basic research is up 52% since 1993.
- R&D support to Universities increases 8% -- a \$1.3 billion increase. R&D support to Universities is up 53% since 1993.
- Merit-based peer reviewed R&D increases 8% -- an increase of \$2.1 billion.
- And perhaps most importantly, this budget presents a balanced R&D portfolio, which recognizes the importance of the interdependence of science.

The Initiative begins to restore balance between health care research and other scientific disciplines. It substantially increases the university-based research that will ensure a strong S&T workforce in the 21st century, help close the opportunity gap and provide economic opportunity for all Americans. It also maintains the U.S. position as the world leader in science and technology.

This budget plots a bold course of strategic growth and prosperity through discovery. I look forward to working with Congress on a bi-partisan basis to see it successfully enacted.

Thank you all for coming. I would like to now open it up for questions.