From the Desk of the NIH Director

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Your Responses to the Fall Newsletter

First, I want to thank all of you who wrote to me after the last newsletter to share your thoughts, concerns, and creative ideas for facing the challenges before NIH. I read every response. I have senior leadership at work on many of your suggestions.

Testimony Before the Appropriations Subcommittees

On March 6, 2007, I testified before the House Appropriations Subcommittee on Labor, Health and Human Services, and Education, and March 19 before the corresponding Senate Subcommittee, and told them that the 21st century will be for the life sciences what the past century had been for the physical sciences. Mastery of the biological world will have impact not only upon health, but also upon our ability to develop sensitive solutions to environmental and energy challenges and will be a key determinant of national competitiveness. Key ideas I shared with them included the challenges that face our society due to the unsustainable growth rate of health expenditures. NIH and our scientists believe we are in a transformative phase of the biomedical and behavioral sciences, where opportunities for discoveries and their translation have greatly expanded. We are moving into a time where rather than intervening, often too late in a disease process, we will be in a new era where medicine will be more predictive, personalized and preemptive, through a greater scientific understanding of the fundamental mechanisms that lead to disease years before disease strikes the patient.

In a relatively constant budget, we made the tough but necessary choices to ensure that the investment and momentum of biomedical research continues. We must know where we must be in the future to create a sustainable environment for the discoveries needed to transform people's health.

I shared some recent health-related progress with the committees.

- NIH-funded research helped reduce fatal heart disease in women. From 2003 to 2004, there was a decrease of fatal heart disease in women of nearly 17,000 deaths, moving the statistics from 1 in 3 women dying to 1 in 4.

- Mortality rates in cancer are falling. Cancer is the second leading cause of death, and this year, for the second year in a row, the absolute number of cancer deaths has declined despite the growth and aging of the population — a truly unprecedented event in medical history. More effective therapies have also led to improved outcomes for more than 10 million cancer survivors.

- NIH-funded research gives us more information to intervene in diabetes. Nearly 21 million Americans have diabetes. The NIH-funded Diabetes Control and Complications Trial

confirmed that individuals with diabetes can cut their risk for nerve disease by 60%, and half their risk for kidney disease and cardiovascular disease, by intensively controlling their blood sugar levels. These same tight controls can lower the risk for eye disease by more than 75% — a critical finding for those who would lose their sight to eye disease through diabetic retinopathy.

- NIH-supported research to treat cognitive decline brings improvement. In 2006, NIH research developed new strategies to help depressed people become symptom-free and prevented disease recurrence in older adults with single-episode depression.

- . . . and much, much more. Additional noteworthy advances included the development of promising new drugs for tuberculosis, inflammatory disease, and muscular dystrophy. We saw the development of exciting experimental results of vaccines against increasingly dangerous staph infections and against the H5N1 avian flu virus; the promising vaccine against HIV/AIDS; and, the discovery last month of the unique molecular weak spot in the armor of the HIV virus.

NIH Core Strategic Vision:

- Transform medicine and health from a Curative to a Preemptive paradigm
- Support basic research to identify the earliest molecular stages of disease in complex biological systems
- Accelerate translation of findings from the bench to the bedside to the community
- Provide the evidence and knowledge base to allow for a rational transformation of our healthcare system

At the hearing I shared our current challenges, and our strategic vision for a future where the model is not curative, but preemptive. I described the power of personalized medicine and the interplay between what is predictive, preemptive and personalized in order to contribute to human health in this new century. I shared our budget priorities, nurturing a new generation of scientists and sustaining innovation. And, I talked with them about the way to maintain momentum toward health in the new century, closing with "I ask you to consider the challenges and the opportunities before us today in medicine and health, and the essential role of biomedical research. We have the key elements in place for overcoming a host of diseases and conditions and their societal burden, and momentum is on our side. Our research efforts, with our partners at the universities and within industry, have ushered in revolutionary changes in the diagnosis, treatment, and prevention of disease. Sustaining the pace of biomedical discovery is essential to realizing a true and necessary transformation of medicine and health in our country. I am cautiously optimistic that our message is being heard."

For the full testimony and slides from the oral presentation: http://www.nih.gov/about/director/budgetrequest/index.htm.

The Joint Resolution Impact

The FY 2007 Joint Resolution increases NIH funding by $687 million over FY 2006 and provides an increase of about 1% to Institutes and Centers and directly supports the Common Fund at $483 million.

Reauthorization is Being Implemented

When the President signed into law the National Institutes of Health Reform Act of 2006 on January

15, it was only the third NIH omnibus reauthorization in our history and it signaled renewed confidence in the NIH mission, its employees, and its leadership. I see only benefits emerging from this opportunity.

For example, using the prototype of the NIH Roadmap for Biomedical Research, the Reauthorization institutionalizes the concept of greater trans-NIH research planning and coordination. It mandates the establishment of a Common Fund for areas of cross-cutting science that will be expected to have especially high impact on the way that science is conducted and will benefit the missions of multiple Institutes and Centers.

For more on reauthorization and implementation, see the *NIH Record* http://www.nih.gov/nihrecord/03_09_2007/story01.htm.

Barbara Alving Named Director of NIH's National Center for Research Resources

I am pleased to announce Barbara Alving, M.D. is the new director of the National Center for Research Resources (NCRR). As Acting Director of NCRR, Dr. Alving has overseen the launch of the Clinical and Translational Science Awards (CTSA) program — a new national consortium of academic health centers that will transform the conduct of clinical and translational research to ensure that biomedical discoveries are rapidly translated into prevention strategies and clinical treatments for rare and common diseases. Dr. Alving has demonstrated exceptional leadership in the recent efforts of the NIH to energize the discipline of clinical and translational research across the nation. The CTSA program marks the first systemic change in clinical research in 50 years and is a critical component of how we will effectively re-engineer the clinical research enterprise, including training the next generation of researchers. It will be with Dr. Alving's vision, creativity, and leadership that we will be able to maximize our investment in the CTSA consortium, ensure that benefits extend to the greater research community, and that new medical advances are delivered to the people who need them. In 1999, she joined the National Heart, Lung, and Blood Institute (NHLBI) as the Director of the Division of Blood Diseases and Resources. She then became the NHLBI Deputy Director and Acting Director while also serving as the Director of the Women's Health Initiative (2002-2006). In 2005, I tapped her to be the Acting Director of NCRR. The NCRR budget of greater than $1 billion will enable investigators throughout the country to conduct research that ranges from basic and clinical projects to community outreach and education. NCRR funding provides training and research opportunities at minority institutions and colleges, as well as in academic centers located in states that are challenged by distance and low or often rural populations. For more information, see http://www.nih.gov/news/pr/apr2007/ncrr-02.htm.

Griffin P. Rodgers, M.D., Named Director of NIH's National Institute of Diabetes and Digestive and Kidney Diseases

On April 2, 2007, I announced the appointment of Griffin P. Rodgers, M.D., as director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Griff Rodgers is an outstanding physician-scientist and molecular hematologist. He has made singular contributions to the study of globin disorders and is internationally recognized for his contributions to the development of effective therapy for sickle cell anemia and other genetic diseases of hemoglobin. In addition to his research experience, Dr. Rodgers is a dedicated and knowledgeable clinician and a first rate research administrator. He has all the qualities we search for in an Institute Director. Dr. Rodgers, who was appointed Deputy Director of NIDDK in January 2001, and then Acting Director of NIDDK as well as chief of NIDDK's Clinical and Molecular Hematology Branch, which he has headed since 1998. As the new Director of the NIDDK, Dr. Rodgers will oversee an annual budget of $1.8 billion and a staff of 650 scientists, physician-scientists, and administrators. The Institute conducts and supports research on many of the most serious diseases affecting public health including diabetes, endocrinology, and metabolic diseases; digestive diseases and nutrition, including obesity; and kidney, urologic and hematologic diseases. NIDDK conducts and supports much of the clinical research on the diseases of internal medicine and related subspecialty fields as well as many basic science disciplines at its research facilities in Bethesda, Md. and Phoenix, Ariz. and at research institutions and medical centers throughout the United States. In addition, NIDDK also supports education programs to translate the results of research to health professionals, patients and the

public. For more information, see http://www.nih.gov/news/pr/apr2007/niddk-02.htm.

Welcoming the New Deputy Director for OPASI

Alan M. Krensky, M.D. has been selected as the first NIH Deputy Director for the Office of Portfolio Analysis and Strategic Initiatives (OPASI). Alan graduated from the University of Pennsylvania in 1973, and received his M.D. from the University of Pennsylvania in 1977. At the Stanford University School of Medicine, Dr. Krensky most recently served as professor of pediatrics, Chief of the Division of Immunology and Transplantation Biology, Associate Chair for Research in the Department of Pediatrics, and Associate Dean for Children's Health. We are delighted he has joined the team at this critical time. http://www.nih.gov/news/pr/jan2007/opasi-25.htm.

Women in Science — A Distinctive Path

I was particularly moved by the letters I received after the last newsletter that told in detail about the challenges women in science, and families in science have experienced. I have established a Working Group on Women in Biomedical Careers to examine issues raised in the recent National Academies report, "Beyond Bias and Barriers, Fulfilling the Potential of Women in Academic Science and Engineering," and to respond to the challenges issued to government funding agencies to maximize the potential of women scientists and engineers.

As I said at the NIH announcement NIH Leads Effort to Help Women in Science and Medicine Fulfill Potential of the Working Group, it is critical to address the barriers that women face in hiring and promotion at research universities in many fields of science. When I appointed the NIH Working Group on Women in Biomedical Careers, I wanted to help address this challenge and to develop innovative strategies and tangible actions that can be implemented to promote the advancement of women in research careers both within the NIH intramural community and throughout the extramural research community. I will co-chair this committee with Dr. Vivian Pinn, Associate Director for Research on Women's Health and Director of the Office of Research on Women's Health, and a distinguished woman in science. The working group will carefully consider the recommendations in the National Academies report, and I will report back to you about our progress.

New Investigators

NIH has a strong commitment to support new investigators as the major way to expand the pipeline of talent needed to support biomedical research of the future. NIH will maintain a level of New Investigators in 2007 at a comparable level to the average of the most recent five years.

- This means NIH will support, at a minimum, 1500 First-Time Investigators on competing R01 awards in FY 2007.
- NIH established a new award within the Roadmap called the NIH Director's New Innovator Award.

NIH is taking specific steps to buttress investigators whose R01 applications receive review scores near the Institute or Center nominal payline and who have limited additional support.

Program administrators will identify and nominate applications near the payline for conversion to an NDBA.

Awards will be selected based on the scientifically creative and innovative approaches that meet the mission of the Institute or Center.

NIH will devote $91 million dollars to this effort.

NIH Director's New Innovator Award

In times of tight budgets, it is more important than ever to fund new investigators and innovative research. To address these twin goals, I am launching the NIH Director's New Innovator Award. This program will support new investigators who propose highly innovative research projects with the potential for exceptionally great impact on biomedical or behavioral science.

We expect to make at least 14 New Innovator awards in September 2007. Each grant will be for 5 years and up to a total of $1.5 million in direct costs plus applicable facilities and administrative costs.

For details on our plans, see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-047.html.

NIH Director's Bridge Award

NIH will offer the NIH Director's Bridge Award (NDBA) which is designed to provide continued but limited funding for new and established grantees who have submitted a competing renewal grant application that describes a highly meritorious project but has fallen below the payline. The NDBA will one year of additional support to give the Principal Investigator time to continue their research while strengthening a resubmission application.

NIH Facts For Your Files

From a Harris Interactive Poll: According to a nationwide Harris Poll of 2,337 U.S. adults surveyed online by Harris Interactive(R) between January 11 and 18, 2007, 63% of the public claims it knows what NIH does and 75% of those individuals think we are doing a good job. The trend data show that NIH has experienced a 12% increase in favorability since 2000.

http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/02-06-2007/0004521666&EDATE

Thank you for your continuing contribution to and interest in the work of NIH, the Nation's Medical Research Agency, *transforming health and medicine through discovery*.

I invite you to share any comments you have with me, directly, at zerhounidirect@nih.gov.

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National Institutes of Health

For information about NIH programs, useful health information, and additional resources, see the NIH web site at www.nih.gov. An archive of the Director's Newsletter is available at http://www.nih.gov/about/director/newsletter/archive.htm.

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