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Chicago, Illinois

March 18, 2009
10 a.m.

Testifying on behalf of
The Ad Hoc Group for Medical Research
In support of the National Institutes of Health

Summary of Statement

The funding increases provided for the National Institutes of Health (NIH) in the American Recovery and Reinvestment Act and the FY 2009 omnibus will provide an immediate infusion of funds into the nation's proven and highly competitive medical research enterprise to sustain the pursuit of improved diagnostics, better prevention strategies and new treatments for many devastating and costly diseases. These advances also contribute to the nation's economic strength by creating skilled, high-paying jobs; new products and industries; and improved technologies.

However, the discovery process—while it produces tremendous value—often takes a lengthy and unpredictable path. The infrastructure that we are creating needs to be maintained. Large fluctuations in funding will be disruptive to training, to careers, long range projects and ultimately to progress. The research engine needs a predictable, sustained investment in science to maximize our return.

We must ensure that after the stimulus money is spent we do not have to dismantle our newly built capacity and terminate valuable, on-going research. In 2011 and beyond we need to be able to continue to advance the new directions charted with the ARRA support.

Keeping up with the rising cost of medical research in the 2010 appropriations will help NIH begin to prepare for the "post-stimulus" era. In 2011 and beyond we need to make sure that the total funding available to NIH does not decline and that we can resume a steady, sustainable growth that will enable us to complete the President's vision of doubling our investment in basic research. Consistent with this vision, we respectfully urge this Subcommittee to increase funding for NIH in Fiscal Year 2010 by at least 7 percent.

Science is unpredictable and it is difficult to know exactly which discoveries gained through basic research will foster the next medical advancement. Investing broadly in biomedical research is the key to ensuring the future of America's medical research enterprise and the health of her citizens.

My name is Mary J.C. Hendrix, and I am President and Scientific Director for the Children's Memorial Research Center at Northwestern University's Feinberg School of Medicine. Among my other positions, I am a former President of the Federation of Association of American Societies for Experimental Biology, and am a current member of the Board of Research!America and the Advisory Panel on Research for the Association of American Medical Colleges. I am testifying on behalf of the Ad Hoc Group for Medical Research, which is a coalition of more than 300 patient and voluntary health groups, medical and scientific societies, academic and research organizations, and industry.

As an active cancer researcher and representative of the Ad Hoc Group for Medical Research, I thank and commend Congress for including the extraordinary investment in medical research through the National Institutes of Health (NIH) that was included as part of in the American Recovery and Reinvestment Act (ARRA) [P.L. 111-5] as well as the $938 million increase in NIH funding in the Omnibus Appropriations Act for FY 2009 [P.L. 111-8]. In particular, we are deeply grateful to the Chairman and this Subcommittee for your long-standing leadership in support of NIH. These are difficult times for our nation and for people all around the globe, but the affirmation of science is the key to a better future is a strategic step forward. All of us in the medical research community are committed to do our utmost to fulfill the faith that you and the American people have placed in us.

The partnership between NIH and America's scientists, medical schools, teaching hospitals, universities, and research institutions continues to serve as the driving force in this nation's search for ever-greater understanding of the mechanisms of human health and disease, from which arise new diagnostics and treatments, and cures, and better ways to improve the health and quality of life for all Americans. These advances also contribute to the nation's economic strength by creating skilled, high-paying jobs; new products and industries; and improved technologies.

The recent history of the NIH budget has hindered scientific discovery and limited the capacity of a key engine for today's innovation-based economy. The additional funding in the ARRA and the FY 2009 omnibus are critical first steps to returning the NIH to a course for even greater discovery. These investments give patients, their families and researchers renewed hope for the future, and will help ensure the success of America's medical research enterprise and leadership.

The funding increases in the ARRA and the FY 2009 omnibus will provide an immediate infusion of funds into the nation's proven and highly competitive medical research enterprise to sustain the pursuit of improved diagnostics, better prevention strategies and new treatments for many devastating and costly diseases as well as support innovative research ideas, state-of-the-art scientific facilities and instrumentation, and the scientists, technicians, laboratory personnel, and administrators necessary to maintain the enterprise. More importantly, these funds will reinvigorate this nation's ability to produce the human and intellectual capital that will continue to drive scientific discovery, transform health, and improve the quality of life for all Americans.

Moreover, we see this as the first step in renewing a national commitment to sustained, predictable growth in NIH funding, which we believe is an essential element in restoring and

sustaining both national and local economic growth and vitality as well as maintaining this nation's prominence as the world leader in medical research.

President Obama has committed to increase federal support for research, technology and innovation so that America can lead the world in creating new advanced jobs and products. A key element of his strategy is to double federal funding for basic research to "foster home-grown innovation, help ensure the competitiveness of U.S. technology-based businesses, and ensure that 21st century jobs can and will grow in America." If America is to succeed in the information-based, innovation driven world-wide economy of the 21st century, we must recommit to long-term sustained and predictable growth in medical research funding.

As a result of this Subcommittee's prior investment in NIH, we have made critical advances in several key areas including:

- Stem Cells – Reprogramming skin cells from a patient with Parkinson's Disease into normal neurons that could be used to fight this degenerative disease.
- Infectious Diseases – Developing more effective antibodies, and ultimately vaccines, to fight lethal flu viruses before they become pandemic.
- Cancer – Launching the Cancer Genome Atlas as a partnership between the National Cancer Institute and the National Human Genome Research Institute to discover the genetic basis for various cancers.

In addition, as a consequence of the investment over the past two decades in the human genome project and other areas of genetics, we are now entering an era of personalized medicine, which has the potential to transform healthcare through earlier diagnosis, more effective prevention and treatment of disease, and avoidance of drug side effects. For example, the same medication can help one patient and be ineffective for, or toxic to, another. By applying our greater understanding of how an individual's genetic make-up affects a response to specific drugs, we will increasingly know which patients will likely benefit from treatment and which will not benefit, or worse, be harmed. Cancer chemotherapy and the use of the anticoagulant Coumadin are good examples of how this might be applied.

However, the discovery process—while it produces tremendous value—often takes a lengthy and unpredictable path. The talent base and infrastructure that we are creating needs to be maintained. Large fluctuations in funding will be disruptive to training, to careers, long range projects and ultimately to progress. The research engine needs a predictable, sustained investment in science to maximize our return.

We must ensure that after the stimulus money is spent we do not have to dismantle our newly built capacity and terminate valuable, on-going research. In 2011 and beyond we need to be able to continue to advance the new directions initiated with ARRA support.

Mr. Chairman, as you noted in your recent press release, the FY 2009 omnibus and the ARRA provided $38.5 billion for NIH to provide over 16,000 new research grants for live-saving research into diseases such as cancer, diabetes and Alzheimer's. Keeping up with the rising cost of medical research in the 2010 appropriations will help NIH begin to prepare for the "post-

stimulus" era. In 2011 and beyond we need to make sure that the total funding available to NIH does not decline and that we can resume a steady, sustainable growth that will enable us to complete the President's vision of doubling our investment in basic research. Consistent with the President's proposal, we respectfully urge this Subcommittee to increase funding for NIH in Fiscal Year 2010 by at least 7 percent.

The ravages of disease are many, and the opportunities for progress across all fields of medical science to address these needs are profound. The community appreciates that this subcommittee has always recognized that science is unpredictable and that it is difficult to know exactly which discoveries gained through basic research will foster the next medical advancement. There are many examples of areas where important therapies for one disease have resulted from investments in unrelated areas of research. Investing broadly in biomedical research is the key to ensuring the future of America's medical research enterprise and the health of her citizens.

Thank you again for your leadership in improving the health and quality of life for all Americans and for the opportunity to speak to you today.

**Dr. Mary J.C. Hendrix** received her B.S. degree in Biology/Pre-Med from Shepherd College (now called Shepherd University) in 1974, her Ph.D. in Anatomy from George Washington University in 1977, and an honorary D.Sc. in 1996 from Shepherd College. Dr. Hendrix was an NIH Postdoctoral Research Fellow at Harvard Medical School in the Department of Anatomy and Cell Biology from 1977 to 1980; Assistant, Associate and Professor (and Associate Head) at the University of Arizona from 1980-1993 and served as an Arizona Disease Control Research Commissioner from 1985 to 1994. She was the Immuno-US Endowed Professor and Director of the Pediatric Research Institute, St. Louis University School of Medicine and Cardinal Glennon Children's Hospital from 1994-1996, prior to joining the faculty of The University of Iowa as the Leading Woman Scientist Endowment Recipient and Head of the Department of Anatomy and Cell Biology in June 1996. She also served as the Kate Daum Research Professor, and Associate Director of Basic Research and Deputy Director for The Holden Comprehensive Cancer Center at The University of Iowa, for the Roy J. and Lucille A. Carver College of Medicine from 1996-2004. Currently, she serves as President and Scientific Director, and the Medical Research Institute Council Professor, for the Children's Memorial Research Center at Northwestern University Feinberg School of Medicine. She is the US Editor of Pathology Oncology Research, and Member of the Editorial Boards of Lymphatic Research & Biology, Developmental Dynamics, Cancer Biology and Therapy, Journal of Cellular Biochemistry, Cancer Research, the American Journal of Pathology, and Cancer Microenvironment. She is a Past-President of FASEB (Federation of American Societies for Experimental Biology). She also serves on the National Institutes of Health's Council of Councils, the Board of Directors for the Annenberg Center for Health Sciences, the National Cancer Institute Board of Scientific Advisors, the Board of Directors for Research!America, and the Board of Directors for the Chicago Council on Science & Technology. Dr. Hendrix is a Past-President of the Association of Anatomy, Cell Biology, and Neurobiology Chairpersons (AACBNC), and former Co-Director of the Virtual Naval Hospital. She has over 200 publications in biomedical research, and is the recipient of a MERIT Award from the National Cancer Institute. Dr. Hendrix has been awarded the 2004 Australian Society for Medical Research Lecturer and Medal Recipient for research and advocacy, the 2006 Henry Gray Award by the American Association of Anatomists that recognizes achievement and unique and meritorious contributions to the field of anatomical science, the 2006 Distinguished Woman Faculty Award from Northwestern University's Feinberg School of Medicine, the 2007 Murray Barr Award from the University of Western Ontario, and the 2008 Princess Takamatsu Cancer Research Lecturer Award in Japan. Her scientific objectives include identifying genes which contribute to cancer metastasis and other related diseases which exhibit similar biological activities. Her major goal is to define important structure/function relationships, which provide the biological basis for new therapeutic strategies. Recent studies have generated molecular classification(s) of specific tumors, and have provided new prognostic markers and novel targets for therapeutic intervention. Current research activities focus on elucidating how regulatory molecules and phenotype control genes govern cell-to-cell and cell-to-matrix interactions, epithelial/mesenchymal transitions, and motility. Specific projects include signal transduction events initiated by cell adhesion molecules and growth factors; factors regulating interconversion of the tumor cell phenotype; regulation of matrix metalloproteinases by tumor and stromal cell interactions; tumor angiogenesis and vasculogenesis; role of the microenvironment in inducing and maintaining an aberrant cellular phenotype; and the identification of stem cell subpopulations within tumors.

# Subcommittee on Labor, HHS, Education and Related Agencies
# Witness Disclosure Form

**Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization <u>other</u> than a federal agency, or a state, local or tribal government.**

Your Name, Business Address, and Telephone Number:

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1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.

   Ad Hoc Group for Medical Research

2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2006?

   **X Yes** No

3. If your response to question #2 is "Yes", please list the amount and source (by agency and program) of each grant or contract, and indicate whether the recipient of such grant or contract was you or the organization(s) you are representing.

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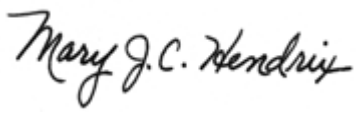
| 2 RO1 CA75681 (Hendrix) | $1,500,000 | NIH/NCI |
| 1 RO1 CA121205 (Hendrix) | $1,824,127 | NIH/NCI |



Signature: _____ Date: March 13, 2009

Please attach a copy of this form, along with your curriculum vitae (resume) to your written testimony.