May 10, 2011

The Honorable Richard Shelby
United States Senate
Washington, DC 20510

Dear Senator Shelby,

The American Physiological Society (APS) thanks you for your ongoing support of the National Institutes of Health (NIH). The APS is a professional society, numbering 10,000 members, dedicated to fostering research and education as well as the dissemination of scientific knowledge concerning how the organs and systems of the body function. Research carried out by intramural and extramural NIH scientists contributes to our understanding of health and disease, which allows all Americans to look forward to a healthier future.

The APS urges you to make every effort to provide the NIH with $35 billion in FY 2012. Funding at this level will maintain the current program capacity that was built with the American Recovery and Reinvestment Act (ARRA) and allow for modest growth.

The APS recognizes that the economic challenges facing the country demand that government resources be used judiciously. Federal investment in research is critically important because breakthroughs in basic and translational research are the foundation for new drugs and therapies that help patients, fuel our economy, and provide jobs. The federal government is the primary funding source for discovery research through competitive grants awarded by the NIH, and the private sector partners with academic researchers to develop research findings into new treatments. This system of public-private partnership has been critical to maintaining U.S. leadership in the biomedical sciences.

**NIH funds outstanding science**

As a result of improved health care, Americans are living longer and healthier lives than ever before. However, chronic diseases such as heart failure, kidney disease, diabetes, respiratory disease and cancer continue to inflict a heavy burden in the United States and around the world. A recent report from the World Health Organization indicated that chronic, noninfectious diseases now cause more deaths globally than all other diseases combined. The NIH invests heavily in research to understand the physiological mechanisms at work in health and disease. This knowledge is crucial to the development of safe and effective intervention and prevention strategies.

The development of statins, a class of drug widely used to prevent and treat heart disease, illustrates the process by which basic research can lead to dramatic advances in health care. Working together in the 1970’s, Michael Brown and Joseph Goldstein investigated the pathways involved in cholesterol metabolism. Their fundamental research was supported by the National Heart, Lung and Blood Institute at the NIH and they were jointly awarded the Nobel Prize in Physiology or Medicine in 1985 for their discoveries. The understanding of the cholesterol pathways ultimately led to the development of statins, a class of drugs which act to lower cholesterol and have been shown to be effective in reducing the risk of heart disease.
Examples of many recent breakthroughs are available on the NIH website, and a few are highlighted below.

**Early detection of Type 2 diabetes**
Blood samples collected as part of a long-term research project funded by the National Heart, Lung and Blood Institute helped researchers supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) develop a blood test to identify individuals at high risk of developing type 2 diabetes. The test is able to predict which individuals are at risk for developing diabetes long before the onset of disease, providing crucial time to intervene.  

**New strategy for treating lung disease yields promising early results**
Researchers studying chronic obstructive pulmonary disease (COPD), a common and deadly lung disease, found that a compound naturally present in broccoli has the potential to reduce infection and inflammation. Early clinical trials are underway to assess whether the treatment will provide relief to patients with COPD. This work was sponsored by the National Heart, Lung and Blood Institute and the National Institute of Environmental Health Sciences.  

**NIH nurtures the biomedical research enterprise**
In addition to supporting research, the NIH must also address workforce issues to ensure that our nation’s researchers are ready to meet the challenges they will face in the future. The NIH has taken several steps to foster the next generation of investigators including:

- Increasing stipends for National Research Service Award trainees by 2% in FY 2011.
- Continuing a commitment to fund new investigators at approximately the same rate as established investigators.
- Establishing a working group of the Advisory Committee to the Director to examine future needs and make recommendations for ensuring a diverse and sustainable future biomedical workforce.

The NIH is also home to the Institutional Development Award (IDeA) Program. Established in 1993, the goal of the IDeA program is to broaden the geographic distribution of NIH funds by serving researchers and institutions in areas that have not historically received significant NIH funding. IDeA builds research capacity and improves competitiveness in those states through the development of shared resources, infrastructure and expertise. IDeA currently serves institutions and investigators in 23 states and Puerto Rico. More information about this program, including a list of states served, is available on the NIH website (http://www.ncrr.nih.gov/research_infrastructure/).

The APS joins the Federation of American Societies for Experimental Biology (FASEB) in urging that NIH be provided with $35 billion in FY 2011 so that researchers can build on the momentum and capacity created through the ARRA investment.

Sincerely,

Joey P. Granger, Ph.D.
President
American Physiological Society