The American Physiological Society Statement on FY 2009 Funding for the National Institutes of Health

The American Physiological Society (APS) thanks the Subcommittee for its sustained support for the National Institutes of Health (NIH). The doubling of the agency’s budget that took place between 1998 and 2003 allowed the NIH to explore new and innovative ways to address challenges in biomedical research. The increased funding has allowed researchers to investigate scientific opportunities on an unprecedented scale, creating significant momentum and excitement in the research community. To maximize and build upon that momentum, the NIH must be able to continue to provide support for scientists and researchers around the country. For the last five years, the NIH budget has failed to keep pace with inflation, resulting in a loss of purchasing power of more than 10%. The Administration’s FY 2009 budget proposal would fund the NIH at $29.3 billion, the same as in FY 2008. The APS urges you to make every effort to provide the NIH with $31.1 billion in FY 2009 so we can take advantage of scientific opportunities and strengthen the nation’s scientific workforce to face future challenges.

The APS is a professional society dedicated to fostering research and education as well as the dissemination of scientific knowledge concerning how the organs and systems of the body work. The Society was founded in 1887 and now has more than 10,000 member physiologists. Our members conduct NIH-supported research at colleges, universities, medical schools, and other public and private research institutions across the U.S. The APS offers these comments on the budget recognizing both the enormous financial challenges facing our nation and the enormous opportunities before us to make progress against disease.

Research challenges and solutions

Looking ahead, the scientific and medical communities see many challenges on the horizon including an aging population, the growing incidence of obesity, diabetes and heart disease, and new and emerging infectious diseases. The NIH has taken a forward-thinking approach to these challenges, and developed a vision for the future of health care that focuses on predicting who will develop diseases with the goal of developing personalized prevention and treatment strategies that will pre-empt disease onset before symptoms appear. The goal of this approach is to minimize health care expenses by keeping Americans healthier longer, instead of the current model of health care, which is based on intervention once symptoms occur. In order to make this vision a reality, extensive research is needed to increase our understanding of the basic mechanisms of disease and pursue the most effective intervention strategies.
An example of this proactive approach is beginning to take shape in Alzheimer’s disease research. Alzheimer’s is a devastating neurological disease that afflicts a growing number of older Americans. Researchers have used both basic and clinical research to begin to determine who is at risk for developing the disease, identify the underlying genetic variants, and understand the molecular pathology in the brains of those who are affected. This work has led to several new targets for drug development that will be explored in the coming years, hopefully leading to the development of new ways to prevent and treat Alzheimer’s disease.

Another recent breakthrough that holds the promise of saving many lives through disease prevention is the development of a vaccine that protects against cervical cancer. Scientists have known for some time that human papilloma virus (HPV) infection can in some cases lead to the development of cervical cancer in women. While effective screening methods for early detection are available, the disease remains a significant cause of death in the United States and around the world, where health care systems are not able to provide routine screening for precancerous cells. The recently released cervical cancer vaccine is designed to prevent infection by several of the viruses that cause most of the cancers and by vaccinating young women it is hoped that the incidence of cervical cancer will decline.

The Scientific Workforce

In addition to supporting research, the NIH must also address workforce issues to be sure that our nation’s researchers are ready to meet the challenges they will face in the future. Recent data from the NIH shows that the average age of NIH supported principal investigators (PI) is now 50.8 years, up from an average of 39.1 years in 1980. In addition, the average age of the new NIH PI has increased to 42.4 years. As the scientific workforce ages and researchers retire, there is concern that there will not be an adequate number of young scientists who are trained to replace them. NIH has undertaken several programs to encourage and fund early-career investigators, but falling success rates may discourage trainees from pursuing careers in academic science. The FY 2009 budget request would result in an overall success rate for grant applications of just 18%, the lowest figure in decades. As funding falters, the best and brightest minds will turn away from careers in medical science. If NIH cannot fund new ideas, this will not only hamper efforts to find cures, it will also discourage up and coming researchers who could become the next generation of basic and clinical scientists.

Recommendations

The APS joins the Federation of American Societies for Experimental Biology (FASEB) and the Ad Hoc Group for Medical Research Funding in urging that NIH be provided with $31.1 billion in FY 2009 to permit the agency to maintain its current wide-ranging and important research efforts. Because the majority of the NIH budget is distributed to scientists who carry out their research in all 50 states, the investment that Congress makes in biomedical research creates jobs and contributes to
economic vitality in communities throughout the country. The continued health and prosperity of our nation’s people depends on a robust and consistent investment in basic, translational and clinical research.

2 http://grants.nih.gov/grants/new_investigators/resources.htm#data (accessed March 21, 2008)