

DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH

Good morning, Chairwoman Comstock, Ranking Member Lipinski, and distinguished members of the Committee. My name is Dr. Michael Lauer and I am the Deputy Director for Extramural Research at the National Institutes of Health (NIH). Thank you for the opportunity to discuss the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs at the NIH in the context of NIH's research and development (R&D) portfolio. This morning, I will discuss NIH's R&D portfolio, the NIH SBIR/STTR portfolio, and principles for reauthorization for consideration by this Committee to ensure that the SBIR/STTR programs best meet the needs of the biomedical research ecosystem.

OVERVIEW OF THE NIH PORTFOLIO

As the nation's premier biomedical research agency, NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems, and to apply that knowledge to enhance human health, lengthen life, and reduce illness and disability.

NIH has been advancing our understanding of health and disease for more than a century. Scientific and technological breakthroughs generated by NIH-supported research are behind many of the improvements our country has enjoyed in public health. For example, our Nation has gained about one year of longevity every six years since 1990.¹ A child born today can look forward to an average lifespan of about 78 years – nearly three decades longer than a baby born in 1900. Deaths from heart attack and stroke have been reduced by more than 70 percent in the past 60 years. Thanks to NIH-developed anti-viral therapies, HIV-infected people in their 20s today can expect to live into their 70s. This compares to a life expectancy measured in months when the disease first appeared in the 1980s. Cancer death rates have been dropping about one percent annually for the past 15 years.

¹ http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf

Many recent breakthroughs stem from our nation's commitment to investing in basic science research. Basic science lays the foundation for advances in disease diagnosis, treatment, and prevention by providing the building blocks for clinical applications. Basic science is generally not supported in the private sector, and NIH's focus on understanding fundamental biological processes not only has led to 148 Nobel Prizes to our grantees, but fosters innovation and ultimately leads to effective ways to treat complex medical conditions.

In fiscal year (FY) 2016, NIH's \$32.3 billion budget will support biomedical research in every state and nearly every Congressional district. The NIH portfolio is split into two broad categories. First, our extramural program supports scientists throughout the country at universities, hospitals, academic medical centers, and small businesses and represents about 83 percent of the budget. Second, our intramural program supports research conducted by NIH scientists within our own laboratories and represents about 11 percent of the budget. For the extramural program, NIH provides support through grants, cooperative agreements, and contracts; and we have an array of different funding mechanisms to match the variety of types of science we support. Researcher-initiated ideas are the cornerstone of the NIH research portfolio, including projects supported by the SBIR/STTR program. NIH supports the foundation of the entire biomedical research enterprise.

Studies have shown that NIH grants lead to novel inventions and patents. From 2000 to 2013, NIH-funded researchers produced 20,441 unique patents. NIH research funding directly yields approximately 6 new patents for every \$100 million of grant and contract funding.²

² "Patents as Proxies Revisited: NIH Innovation 2000 to 2013" Battelle Technology Partnership Practice, prepared for The Academy of Radiology Research, 2015.
http://www.battelle.org/docs/tpp/battelle_2015_patents_as_proxies.pdf

reauthorized to provide American's small businesses and participating Federal agencies with much-needed long-term certainty.

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Future growth in SBIR/STTR programs should be realized through overall extramural R&D budget increases for each SBIR/STTR funding agency. For example, Congress provided NIH a \$2 billion increase in FY 2016, which meant that our SBIR/STTR programs increased by 12.4 percent from the previous fiscal year (4.5 percentage points of that growth attributed to the statutory increase in the set aside with the remainder due to the overall budget increase) compared to a 6.6 percent increase for NIH. The annual set-aside amounts for agency SBIR/STTR programs should be maintained at the FY 2017 levels (3.2 percent/0.45 percent), which represent greater than 30 percent increase over the FY 2011 levels (2.5 percent/0.3 percent). The biomedical research enterprise now suffers from hyper competitiveness with researchers competing against each other.

CONCLUSION

In conclusion, I want to emphasize that flexibility is critical at a time when science is changing rapidly, becoming more complex, more interdisciplinary, and more resource intensive.