Realizing the Promise of Medical Innovation



THE EVENT

Congress is currently considering a comprehensive, bipartisan medical innovation package to accelerate the discovery, development, and delivery of safe and effective cures for patients, including important administration priorities associated with precision medicine and cancer. Also, as we look to 2017, president-elect Trump has signaled that medical innovation will be a priority.

Leaders representing patients, industry, and the federal government joined the Bipartisan Policy Center on November 17, 2016 for a discussion on priorities for medical innovation in the coming weeks.

KEY FACTS

- There were approximately 1.7 million new cancer cases diagnosed and nearly 590,000 cancer deaths in the U.S. last year.¹
- An estimated 5.4 million Americans suffer from Alzheimer's disease and more than 10 million people are living with Parkinson's disease worldwide.^{2,3}
- \bullet There are 10,000 known diseases and there are treatments for only $500.^{\rm 4}$
- On average, it takes \$2 billion and a decade for new drugs and other therapies to get to market in the United States.⁵

PRIORITIES FOR MEDICAL INNOVATION

Speakers at the Bipartisan Policy Center event shared a range of insights on policy priorities in the coming weeks:

- Support early detection, prevention, and research on cancer, through the Cancer Moonshot initiative.
- Improve the hiring and personnel mechanisms that will enable the Food and Drug Administration to attract and retain the best people.
- Increase the use of drug development tools, including biomarkers and patient-reported outcomes.
- Develop new pathways to support cell and other regenerative therapies.
- Use real-world evidence to support post-market surveillance.
- Improve the interoperability of health information technology systems and the electronic sharing of information.



REMARKS FROM

Francis S. Collins, M.D., PhD

Director, National Institutes of Health

Andrew von Eschenbach, M.D.

President, Samaritan Health Initiatives
Former Commissioner, Food and Drug Administration
Advisor, Bipartisan Policy Center's Advancing Medical Innovation
Initiative

James Greenwood

President and CEO, Biotechnology Innovation Organization

Ellen V. Sigal, PhD

Founder and Chair, Friends of Cancer Research

Mary Woolley

President, Research! America

MODERATED BY

Janet Marchibroda

Director, Health Innovation Initiative, Bipartisan Policy Center

"21st Century Cures...it's bipartisan, it's for patients, it's for health, and we have to do it."

- Ellen V. Sigal, PhD

¹ American Cancer Society. "Cancer Facts and Statistics 2015." Available at: http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-044552.pdf.

² Alzheimer's Association. "Alzheimer's Association 2016 Alzheimer's Disease Facts and Figures." Available at: http://www.alz.org/facts/.

³ Parkinson's Disease Foundation. "Statistics on Parkinson's." Available at: http://www.pdf.org/en/parkinson_statistics.

⁴ Congressional Record. (2015). 114th Congress, 1st Session. 161(106). Available at: https://www.congress.gov/congressional-record/2015/7/9/house-section/article/h5008-1.

⁵ Bipartisan Policy Center. Advancing Medical Innovation for a Healthier America. 2015. Available at: http://cdn.bipartisanpolicy.org/wp-content/uploads/2015/07/BPC-Advaning-Medical-Innovation.pdf.



NIH DIRECTOR'S "TOP TEN" AREAS FOR **GROUNDBREAKING ADVANCES**

National Institutes of Health Director Francis Collins, M.D., PhD offered the top ten areas where he thought—with appropriate resources—the U.S. could see groundbreaking advances that would "take one's breath away":

- 1. Using single cell biology—or looking to a single cell to understand more about cancer, human development, environmental exposures, and other key issues.
- **2.** Furthering the understanding of the functioning of the brain to inform research on schizophrenia, epilepsy, traumatic brain injury, autism, and other diseases.
- **3.** Accelerating the identification of a cure for Alzheimer's by building on early indications of interventions identified this year.
- **4.** Exploring bioengineering approaches—including electrical engineering and stem-cell based approaches—to treat spinal cord injuries.
- **5.** Developing safe and effective artificial pancreas' to treat diabetes.
- **6.** Capitalizing on the promise of stem cells, for use in cardiology and other areas, or in lieu of organ transplants.
- 7. Tackling infectious diseases in previously unachievable ways, including the development of a universal influenza vaccine.
- **8.** Combating both pain and the opioid epidemic through non-addictive pain killers.
- **9.** Advancing efforts to use the immune system to tackle cancer through immunotherapy.
- **10.** Realizing the tremendous promise of precision medicine which will enable individualized preventive measures and interventions based on an individual's genetics, environment, and lifestyle.

KEY CONSIDERATIONS FOR THE NEW ADMINISTRATION

Panelists joining the November 17 discussion offered various thoughts on key considerations for the new administration:

- Invest in science and technology infrastructure and the public health infrastructure in the U.S.
- Create a culture of greater collaboration, coordination, and integration at the Food and Drug Administration (FDA).
- Take advantage of existing and emerging tools to improve the medical product development and approval process, including biomarkers, patient-centered outcomes, and real-world evidence.
- Spend more on biomedical research, but also "spend better" promoting greater coordination and integration of research investments.
- · Allow the FDA to have greater access to scientific expertise and knowledge where it exists.
- Consider recent recommendations by former FDA commissioners that FDA become an independent agency.

"[21st Century Cures] is the most significant giant step forward...and is, in my opinion, the critical first step in terms of saving lives."

- Andrew von Eschenbach, M.D.

ABOUT THE BIPARTISAN POLICY CENTER

The Bipartisan Policy Center is a non-profit organization that combines the best ideas from both parties to promote health, security, and opportunity for all Americans. BPC drives principled and politically viable policy solutions through the power of rigorous analysis, painstaking negotiation, and aggressive advocacy.

The Bipartisan Policy Center's Advancing Medical Innovation Initiative is co-chaired by former Senate Majority Leader William H. Frist, M.D. and former Representative Bart Gordon and led by staff director Janet Marchibroda.

The Bipartisan Policy Center would like to acknowledge Tim Swope and Sam Watters for their contributions to this brief.

For more information about the Bipartisan Policy Center's Advancing Medical Innovation effort, go to: bipartisanpolicy.org/blog/tag/21st-century-cures.

