

# NIH FY 2017 Budget Roll-Out

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# NIH's FY 2017 Budget Request

Year	FY 2015	FY 2016	FY 2017 Request
Program Level (\$B)	\$30.311	\$32.311	\$33.136
Competing RPGs (est.)	9,540	10,753	9,946
Total RPGs (est.)	34,379	35,840	36,440
Applicant Success Rate (est.)	18.3%	19.2%	17.5%

- The proposed increase of \$825 million in FY 2017 would continue the progress achieved in FY 2016 and allow the highest total number of Research Project Grants (competing and noncompeting) in seven years.

# FY 2017 Request: Targeted Increases – from Mandatory Funds\*

- National Cancer Moonshot \$680 M
- Precision Medicine Initiative Cohort 100 M
- BRAIN Initiative 45 M

\*Remainder of NIH budget request is at the same overall program level as FY 2016, but \$1 billion of that is from mandatory funds (\$1.825 billion increase).



# National Cancer Moonshot

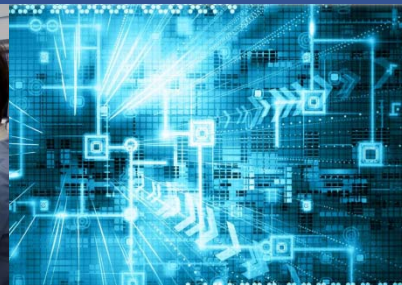
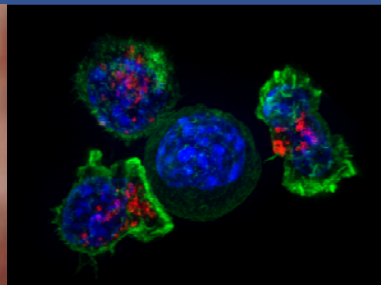


For the loved ones we've all lost, for the families that we can still save; let's make America the country that cures cancer once and for all. What do you think? Let's make it happen. And medical research is critical.

*~ President Barack Obama  
State of the Union Address, January 12, 2016*

# National Cancer Moonshot

- Multi-year cancer initiative, led by the Vice President
- Will accelerate research on new approaches for cancer prevention, screening, diagnosis, treatment
  - Cancer Vaccines
  - Early Cancer Detection
  - Single-Cell Genomic Analysis
  - Cancer Immunotherapy
  - Pediatric Cancer
  - Data Sharing
  - Exceptional Opportunities Fund



# Assembling the PMI Research Cohort

- One million or more volunteers
  - Broadly reflect the diversity of the U.S. (including all ages, health statuses, areas)
  - Strong focus on underrepresented groups
- Longitudinal cohort with continuing interactions
  - Collect EHR data, provide biospecimen(s) and survey, complete baseline exam
- Two methods of recruitment
  - Direct volunteers
    - Anyone can sign up
  - Healthcare provider organizations (incl. FQHCs)
    - Consider diversity of HPO participants, robustness of EHR, patient follow-up



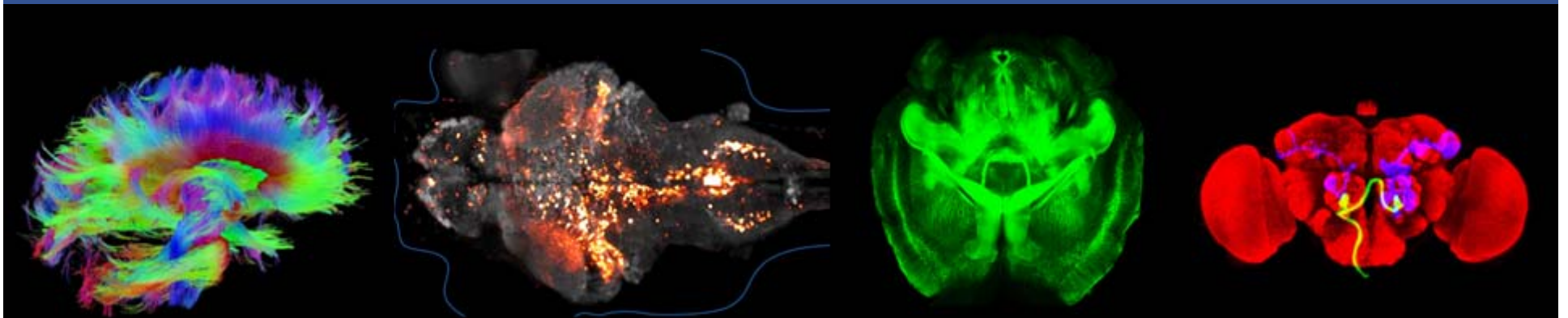
# Scientific Opportunities in U.S. PMI Cohort Program

- Develop quantitative estimates of risk for a range of diseases by integrating environmental exposures and genetic factors
- Identify causes of individual variation in response to commonly used therapeutics (pharmacogenomics)
- Discover biological markers that signal increased or decreased risk of developing common diseases
- Understand and address causes of health disparities
- Use mobile health (mHealth) technologies to correlate activity, physiological measures, environmental exposures with health outcomes
- Develop new disease classifications and relationships
- Empower study participants with data and information to improve their own health
- Create platform to enable trials of targeted therapies



# Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative<sup>®</sup>

- Expand efforts to address fundamental neuroscience questions
- Increase investment to support groundbreaking neuroscience research, neuroimaging, training
- Explore collaborations with industry to develop/test devices for mapping/tuning brain circuitry





# Strategic Approach to HIV/AIDS Research Investment

- Top Priorities
  - Reducing HIV incidence, including vaccines
  - Safer, easier-to-use therapies
  - Research toward a cure
  - HIV-associated comorbidities, co-infections
- Cross-cutting Areas
  - Basic research
  - Health disparities
  - Training



# Strengthen and Sustain Diverse & Talented Biomedical Research Workforce

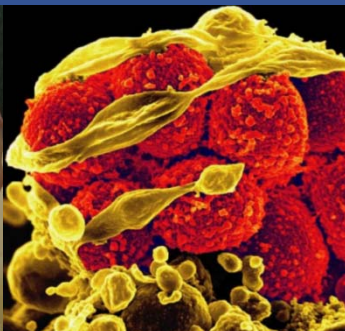
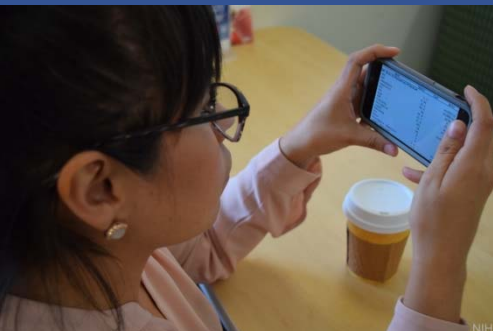
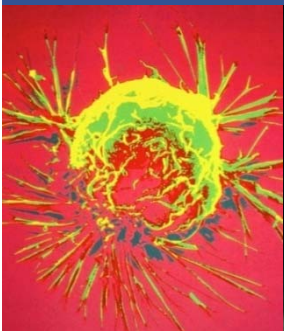
To encourage the next generation of scientists, NIH will continue to invest in:

- High-Risk High-Reward Program to support innovative researchers with potentially transformative goals
- Early Independence Awards to enable exceptional junior scientists to “skip the postdoc”
- An array of programs to enhance diversity in the biomedical research workforce



# FY 2016 Increase Highlights

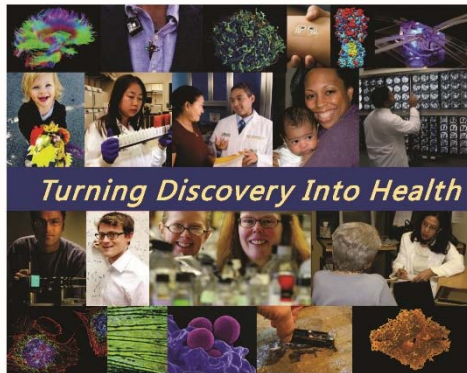
- \$2 billion increase
- Allows highest level of new and competing Research Project Grants since FY 2003 (10,753)
- Precision Medicine Initiative \$200 M
  - Cohort 130 M
  - Cancer 70 M
- Antimicrobial Resistance 100 M
- BRAIN Initiative 85 M
- Alzheimer's Disease 350 M



# NIH's New Strategic Plan

## NIH-Wide Strategic Plan

Fiscal Years 2016-2020



*Turning Discovery Into Health*



### Overview

- Mission of NIH
- Unique moment of opportunity in biomedical research
- Current NIH-supported research landscape
- Constraints confronting the community in the face of lost purchasing power

### Objective 1: Advance Opportunities in Biomedical Research

#### Fundamental Science

- Foundation for progress
- Consequences often unpredictable
- Technology leaps catalyze advances
- Data science increases impact/efficiency



#### Health Promotion/Disease Prevention

- Importance of studying healthy individuals
- Advances in early diagnosis/detection
- Evidence-based reduction of health disparities

#### Treatments/Cures

- Opportunities based on molecular knowledge
- Breakdown of traditional disease boundaries
- Breakthroughs need partnerships, often come from unexpected directions
- Advances in clinical methods stimulate progress



### Objective 2: Set Priorities

- Incorporate disease burden as important, but not sole factor
- Foster scientific opportunity; need for nimbleness
- Advance research opportunities presented by rare diseases
- Consider value of permanently eradicating a pandemic risk

### Objective 3: Enhance Stewardship

- Recruit/retain outstanding research workforce
- Enhance workforce diversity
- Encourage innovation
- Optimize approaches to inform funding decisions
- Enhance impact through partnerships
- Ensure rigor and reproducibility
- Reduce administrative burden

### Objective 4:

**Excel as a Federal Science Agency by Managing for Results**



We live in a time of extraordinary change—change that’s reshaping the way we live, the way we work, our planet, our place in the world. It’s change that promises amazing medical breakthroughs.

*~ President Barack Obama  
State of the Union Address, January 12, 2016*



# NIH... Turning Discovery Into Health

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