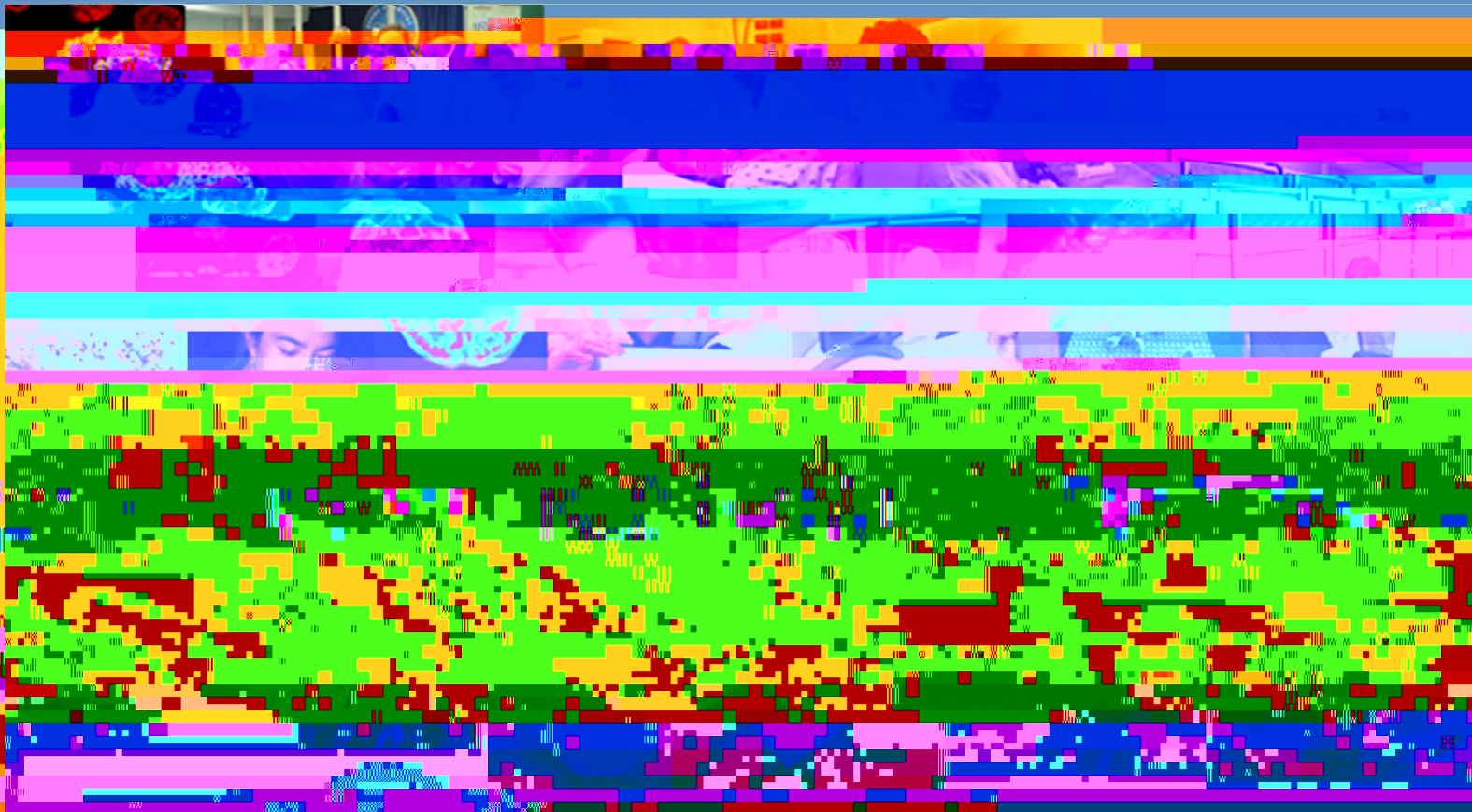


NIH FY 2017 Budget Roll-Out

Francis S. Collins, M.D., Ph.D.

Director, National Institutes of Health

February 9, 2016



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%

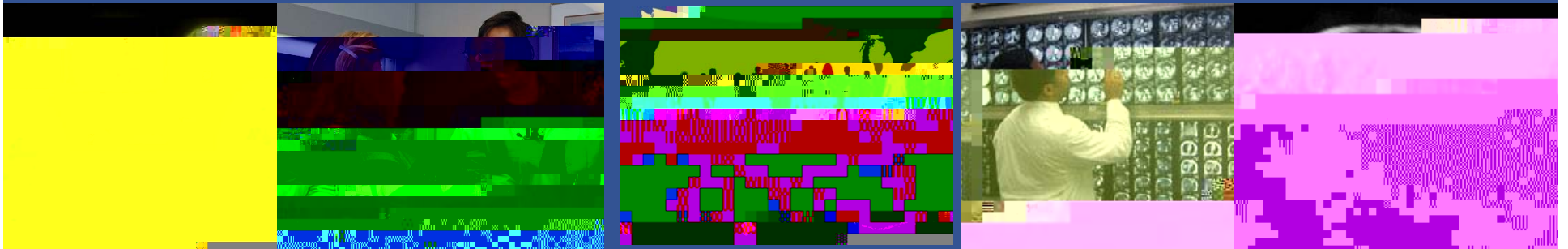
§ The proposed increase of \$825 million in FY 2017 would continue the progress achieved in FY 2016 and allow the highest total number of Research Project Grants (competing and noncompeting) in seven years.

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

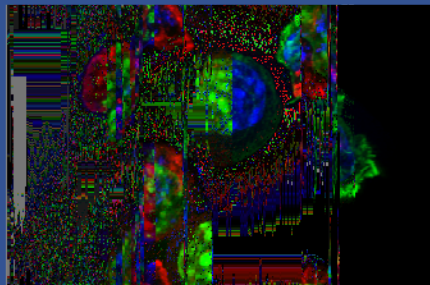


For the loved ones we've all lost, for the families that we can still save; let's make America the country that cures cancer once and for all. What do you think? Let's make it happen. And medical research is critical.

*~ 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

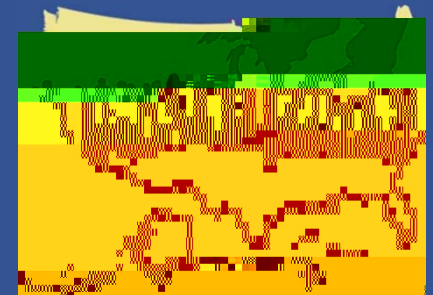
- Broadly reflect the diversity of the U.S. (including all ages, health statuses, areas)
- Strong focus on underrepresented groups

§ 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



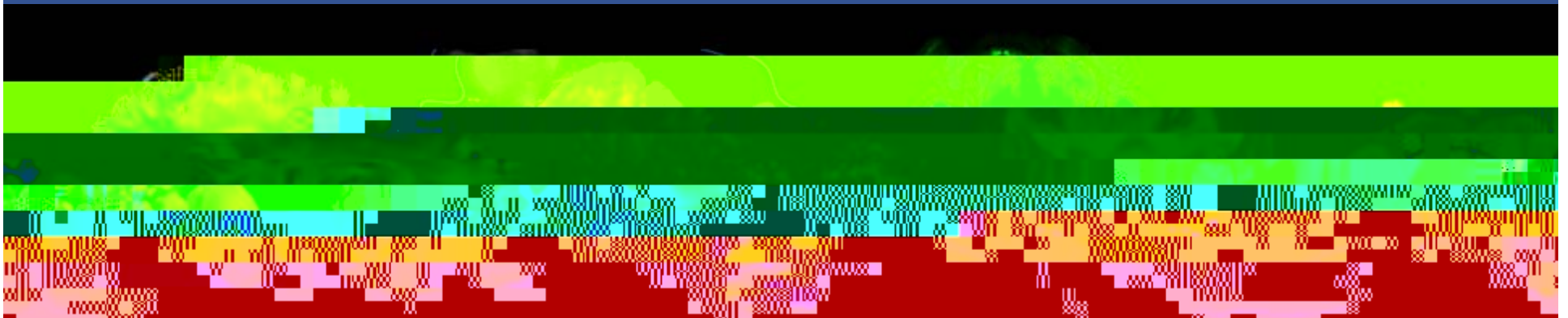
Scientific Opportunities in U.S. PMI Cohort Program

- § 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 [®]

- § 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

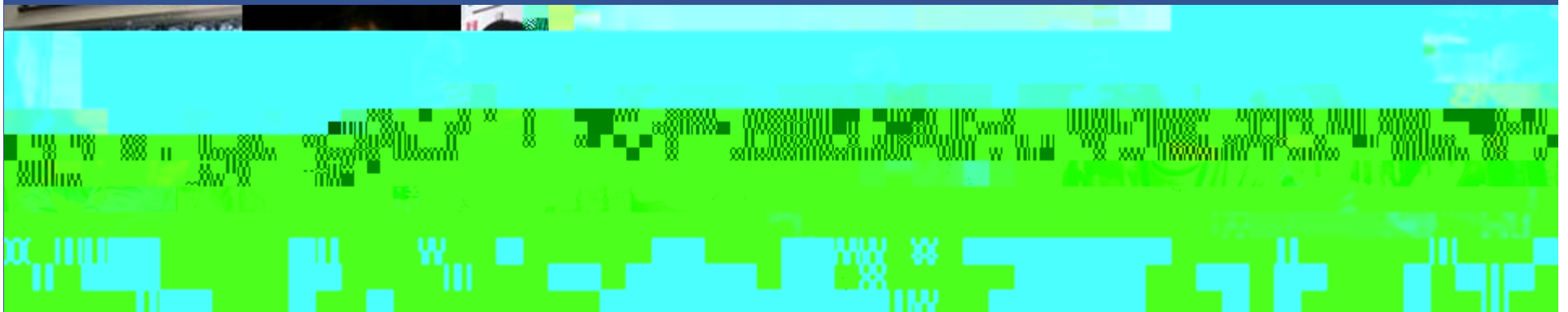
§ Top Priorities

- Reducing HIV incidence, including vaccines
- Safer, easier-to-use therapies
-

Strengthen and Sustain Diverse & Talented Biomedical Research Workforce

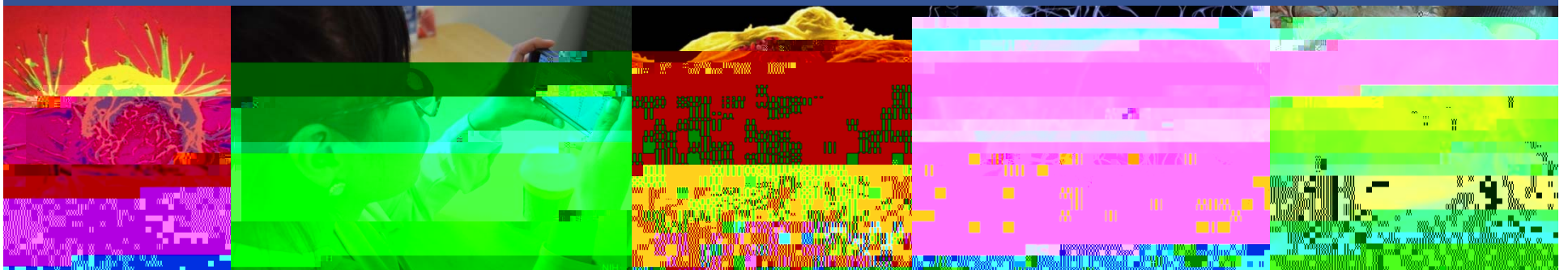
To encourage the next generation of scientists, NIH will continue to invest in:

- § 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



Overview

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

Objective 1: Advance Opportunities in Biomedical Research

Prevention

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

Treatments/Interventions

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

Hardship

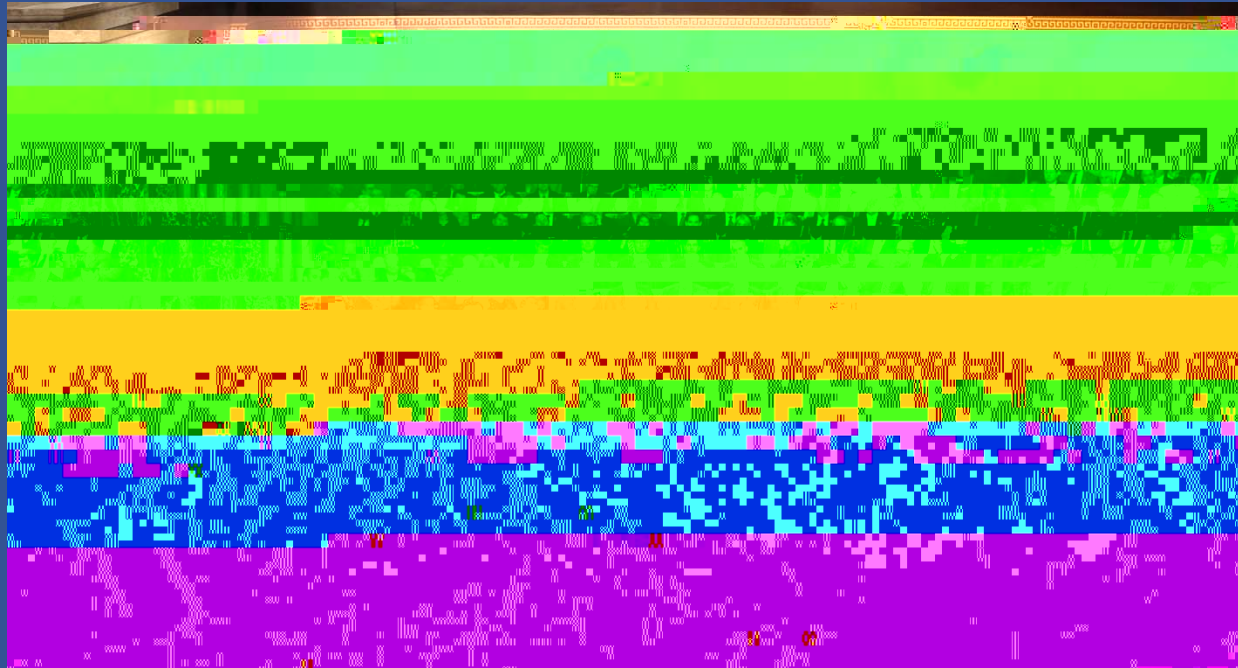
- Incorporate disease approach as important, but not sole factor
- Foster scientific opportunity; need for nimbleness
- Advance research opportunities presented by rare diseases
- Consider value of permanently eradicating a disease

Hardship

- Encourage diversity
- Encourage innovation
- Optimize approaches to inform funding decisions
- Ensure rigor and reproducibility
- Minimize administrative burden

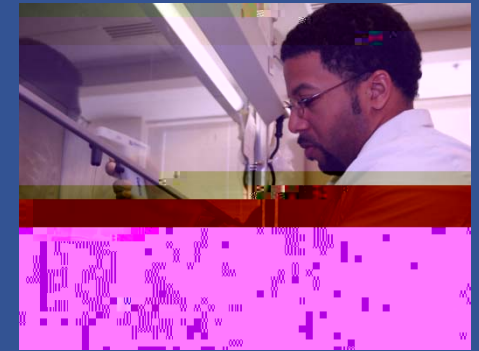
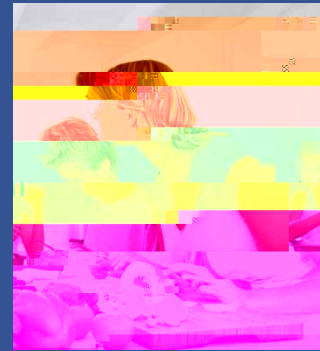
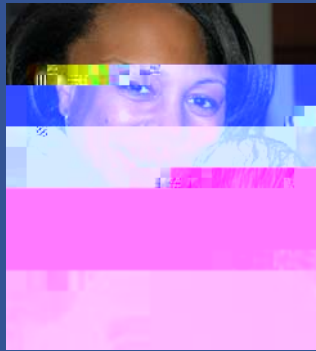
panemic risk

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

