# NOVEL APPROACHES TO BREAKTHROUGH RESEARCH

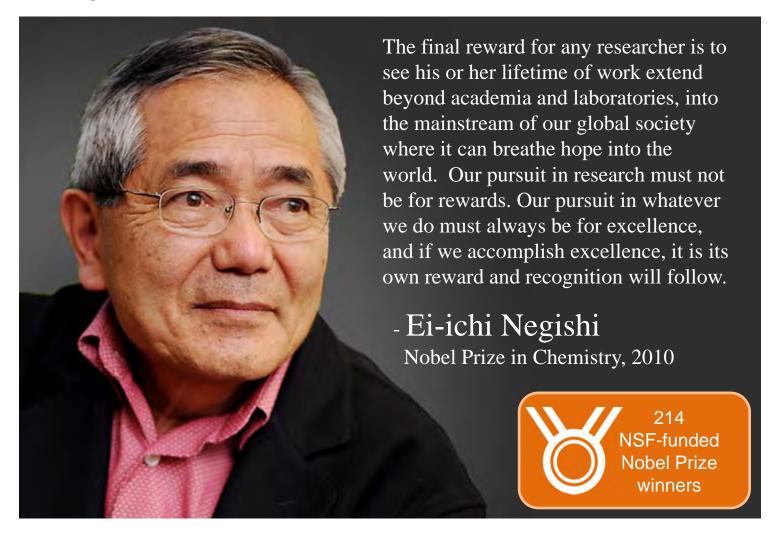


# U.S. National Academy of Sciences Welcomes Prime Minister Abe April 30, 2015





#### Impact of Fundamental Research

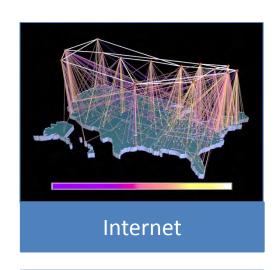




## How Basic Research Impacts Our Lives: NSF-launched Discoveries



















### NSF Funding Mechanisms for Bringing Discovery to Delivery

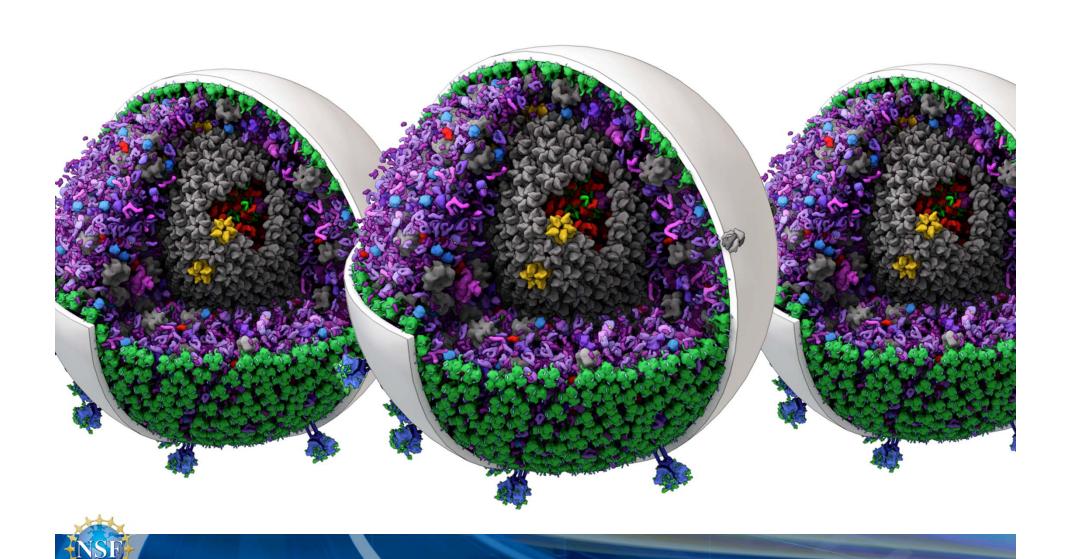
- Interdisciplinary Centers and Programs
- Early Concept Grants for Exploratory Research
- Rapid Response Research
- Big Data: Cyber-infrastructure for Science and Engineering
- International Partnerships
- Innovation Corps



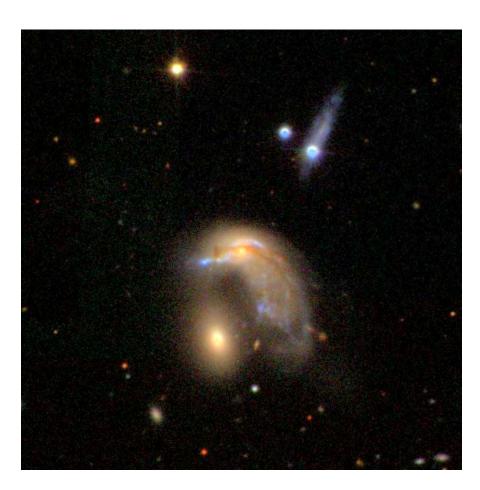
#### Interdisciplinary Centers



#### Interdisciplinary Program: BioMaPS



# Early Concept Grants for Exploratory Research (EAGER)







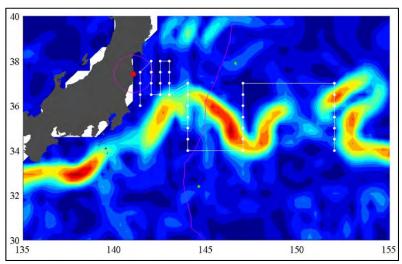
#### Rapid Response Research (RAPID)

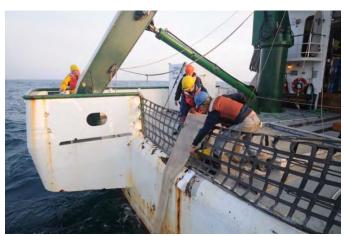




#### RAPID – US-Japanese Collaboration









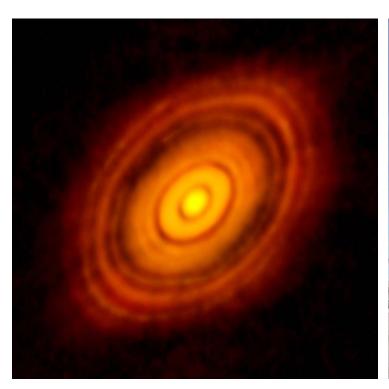


### Cyber-infrastructure Framework for 21<sup>st</sup> Century Science and Engineering (CIF21)





#### International Partnerships (e.g., ALMA)







#### Innovation Corps (I-Corps)





### Funding Tomorrow's Discoverers: JSPS Summer Program 2014





# NOVEL APPROACHES TO BREAKTHROUGH RESEARCH



#### NSF by the Numbers

\$7.3 billion FY 2015 appropriation

94% funds research, education and related activities















Other than the FY 2015 appropriation, numbers shown are based on FY 2014 activities.

