



# **DIRECTOR'S REPORT**

**NATIONAL SCIENCE BOARD**

**AUGUST 9, 2016**



# SELECT NSF REFERENCES IN “100 EXAMPLES OF PRESIDENT OBAMA’S LEADERSHIP IN SCIENCE, TECHNOLOGY, AND INNOVATION”

ENACTED A HISTORIC INCREASE IN RESEARCH AND DEVELOPMENT, AND MAINTAINED IT AS A PRIORITY DESPITE TIGHT FISCAL CONSTRAINTS



**\$88M** in investments to support **basic water technology research**.

~\$8B

to support groundbreaking **research** and world-leading **facilities** across **all fields of science and engineering**.

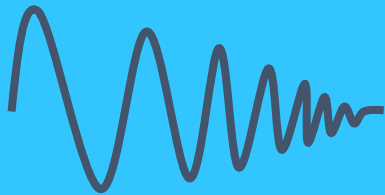


Sets aside **\$33M** in investments for **National Strategic Computing Initiative R&D**.



**\$2B** investments for federal R&D into **advanced manufacturing**.

ADVANCED THE FRONTIERS OF PHYSICS



**LIGO** detects **gravitational waves** for the first time.

ACCELERATED THE TRANSITION OF RESEARCH DISCOVERIES FROM LAB TO MARKET



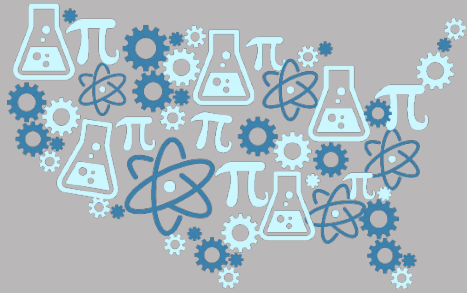
Expansion of **I-Corps** entrepreneurship training program has been **adopted in 10 Federal agency partnerships**.

## ISSUED A NATIONAL BIOECONOMY STRATEGY

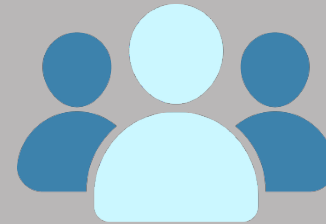


Engineering Directorate to invest in **bio and bio-inspired manufacturing** that will catalyze innovations in **energy conversion technologies and health care.**

## ENCOURAGED BROAD PARTICIPATION AND EQUITY IN STEM EDUCATION



**\$109M** to improve undergraduate **STEM Education.**



Invests **\$16M** in alliances to develop new ways to **increase diversity in STEM.**

## CREATED A NETWORK OF "SMART CITIES"



Over **\$35M** in **Smart Cities** grants.

## INVESTED IN TECHNOLOGIES TO REVOLUTIONIZE UNDERSTANDING OF THE HUMAN BRAIN

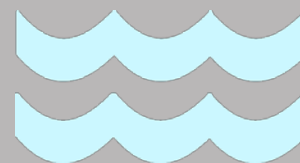


Plans to invest **\$74M** to support the **BRAIN Initiative.**

## ENHANCED U.S. EARTH-OBSERVING CAPABILITIES



Supports a **multi-site, national network** to gather and synthesize **data on the impacts of climate change, land-use change, and invasive species.**

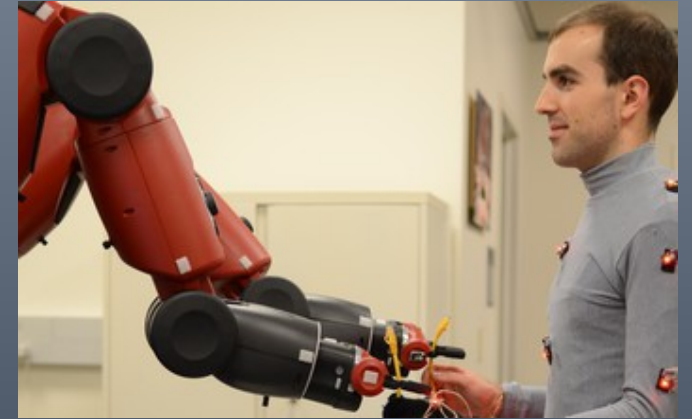


Began construction on a **sensor network** to measure the physical, chemical, geological, and biological variables in the **ocean and on the seafloor.**

# THE WHITE HOUSE AND CAPITOL HILL



2016 Community College Innovation Challenge



5<sup>th</sup> Anniversary of National Robotics Initiative



Senate Science Forum



Medal of Science Ceremonies





# GLOBAL ENGAGEMENT



2016 Annual Meeting

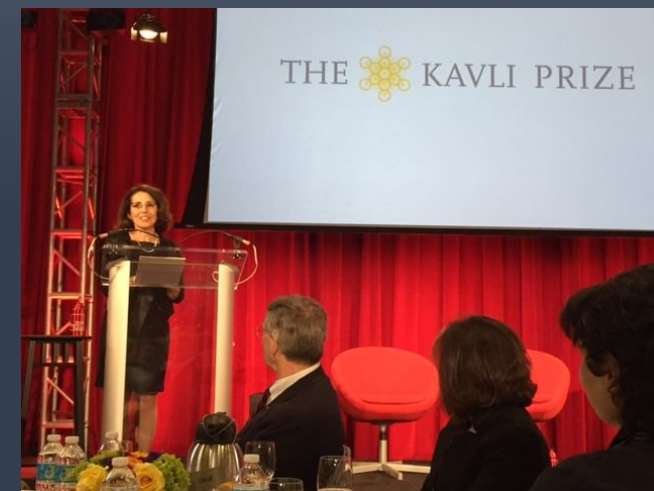
## 5<sup>th</sup> Annual Meeting, Global Research Council, New Delhi



## Times Higher Education Asia Universities Summit, Hong Kong



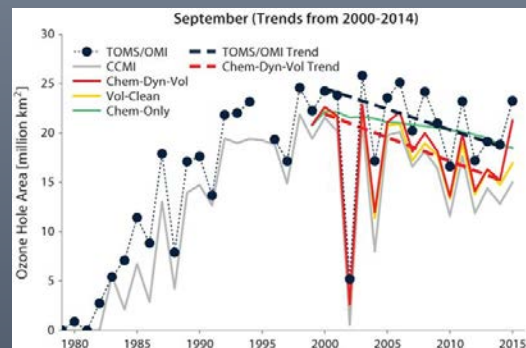
## Kavli Prize



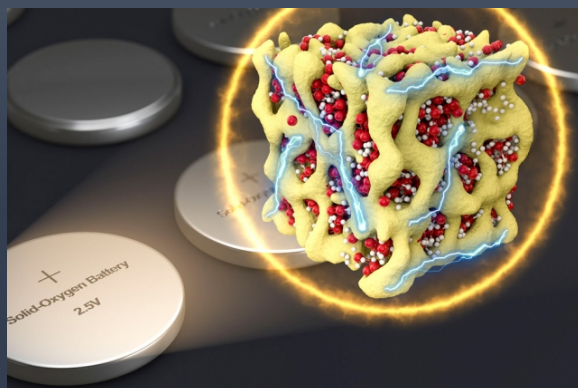
# ADVANCING SCIENCE AND THE HISTORY OF SCIENCE



**Advanced Wireless  
Research Initiative**



**Healing of the Antarctic Ozone Layer**



**Nanolithia Cathode  
Battery**



**Former NSF Director  
Neal Lane**

**LIGO Detects  
a 2<sup>nd</sup> Black  
Hole Merger**

