
E PLURIBUS UNUM

THE PRESIDENT

welcomes you to

THE WHITE HOUSE

on the occasion of the presentation of

THE NATIONAL
MEDAL OF SCIENCE

AND

THE NATIONAL
MEDAL OF TECHNOLOGY
AND INNOVATION

Thursday, May 19, 2016

I am pleased to join in congratulating this year's National Medal of Science and National Medal of Technology and Innovation recipients.

From the darkest depths of the ocean to the highest reaches of the observable universe, scientific and technical laureates like you have enriched our society in immeasurable ways. Embodying the optimism, innovation, and spirit of transformation that have always driven America forward, your work has led us to the cutting edge and back, allowing us to expand our limits and reimagine our shared destiny.

As a future that will inevitably change the way we think, act, and dream approaches, people across generations look to your trailblazing leadership to help chart the course of the unknown. In the face of skepticism and doubt, your perseverance and restless inquiry will continue to empower humankind to reach unbounded heights and overcome the challenges ahead.

Congratulations, again, on your extraordinary accomplishments. Your outstanding achievements have pushed boundaries for all. As you continue on your journeys of invention and discovery to unlock the greatest secrets of our atoms, bodies, world, and universe, I wish you all the best.

President Barack Obama

PROGRAM

Remarks by

THE PRESIDENT

Presentation of Medals

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Reception to follow

Armand Paul Alivisatos, Ph.D.
University of California and
Lawrence Berkeley National Laboratory

For his foundational contributions to the field of nanoscience; for the development of nanocrystals as a building block of nanotechnologies; and for his leadership in the nanoscience community.

Michael Artin, Ph.D.
Massachusetts Institute of Technology

For his leadership in modern algebraic geometry, including three major bodies of work: étale cohomology; algebraic approximation of formal solutions of equations; and noncommunitative algebraic geometry.

Albert Bandura, Ph.D.
Stanford University

For fundamental advances in the understanding of social learning mechanisms and self-referent thinking processes in motivation and behavior change, and for the development of the social cognitive theory of human action and psychological development.

Stanley Falkow, Ph.D.
Stanford University School of Medicine

For his monumental contributions toward understanding how microbes cause disease and resist the effects of antibiotics, and for his inspiring mentorship that created the field of molecular microbial pathogenesis.

Shirley Ann Jackson, Ph.D.
Rensselaer Polytechnic Institute

For her insightful work in condensed matter physics and particle physics, for her science-rooted public policy achievements, and for her inspiration to the next generation of professionals in the science, technology, engineering, and math fields.

NATIONAL MEDAL OF SCIENCE LAUREATES

Rakesh K. Jain, Ph.D.
Harvard Medical School and
Massachusetts General Hospital

For pioneering research at the interface of engineering and oncology, including tumor microenvironment, drug delivery, and imaging; and for groundbreaking discoveries of principles leading to the development and novel use of drugs for treatment of cancer and non-cancerous diseases.

Mary-Claire King, Ph.D.
University of Washington

For pioneering contributions to human genetics, including discovery of the BRCA1 susceptibility gene for breast cancer; and for development of genetic methods to match "disappeared" victims of human rights abuses with their families.

Simon Asher Levin, Ph.D.
Princeton University

For international leadership in environmental science, straddling ecology and applied mathematics, to promote conservation; for his impact on a generation of environmental scientists; and for his critical contributions to ecology, environmental economics, epidemiology, applied mathematics, and evolution.

Geraldine L. Richmond, Ph.D.
University of Oregon

For her landmark discoveries of the molecular characteristics of water surfaces; for her creative demonstration of how her findings impact many key biological, environmental, chemical, and technological processes; and for her extraordinary efforts in the United States and around the globe to promote women in science.

NATIONAL MEDAL OF TECHNOLOGY AND INNOVATION LAUREATES

Joseph M. DeSimone, Ph.D.
University of North Carolina at Chapel Hill, North Carolina State University, and Carbon3D

For pioneering innovations in material science that led to the development of technologies in diverse fields from manufacturing to medicine; and for innovative and inclusive leadership in higher education and entrepreneurship.

Robert E. Fischell, Sc.D.
University of Maryland, College Park

For invention of novel medical devices used in the treatment of many illnesses thereby improving the health and saving the lives of millions of patients around the world.

Arthur Gossard, Ph.D.
University of California, Santa Barbara

For innovation, development, and application of artificially structured quantum materials critical to ultrahigh performance semiconductor device technology used in today's digital infrastructure.

Nancy W. Y. Ho, Ph.D.
Green Tech America, Inc. and Purdue University

For the development of a yeast-based technology that is able to co-ferment sugars extracted from plants to produce ethanol, and for optimizing this technology for large-scale and cost-effective production of renewable biofuels and industrial chemicals.

NATIONAL MEDAL OF TECHNOLOGY AND INNOVATION LAUREATES

Chenming Hu, Ph.D.
University of California, Berkeley

For pioneering innovations in microelectronics including reliability technologies, the first industry-standard model for circuit design, and the first 3-dimensional transistors, which radically advanced semiconductor technology.

Mark S. Humayun, M.D., Ph.D.
University of Southern California

For the invention, development, and application of bioelectronics in medicine, including a retinal prosthesis for restoring vision to the blind, thereby significantly improving patients' quality of life.

Cato T. Laurencin, M.D., Ph.D.
University of Connecticut

For seminal work in the engineering of musculoskeletal tissues, especially for revolutionary achievements in the design of bone matrices and ligament regeneration; and for extraordinary work in promoting diversity and excellence in science.

Jonathan Marc Rothberg, Ph.D.
4catalyzer Corporation and Yale School of Medicine

For pioneering inventions and commercialization of next generation DNA sequencing technologies, making access to genomic information easier, faster, and more cost-effective for researchers around the world.

THE NATIONAL MEDAL OF SCIENCE

The National Medal of Science is the Nation's highest scientific honor. Established by Congress in 1959 and administered by the National Science Foundation, it is bestowed annually by the President of the United States on individuals deserving of special recognition for their outstanding contributions in biology, chemistry, geology, physics, mathematics, sociology, behavioral and economic sciences, and engineering. In 1963, President John F. Kennedy awarded the first Medal of Science—to the late Theodore von Karman, then professor emeritus at the California Institute of Technology. Since then, more than four hundred ninety-seven individuals have been awarded the Medal of Science. An independent presidentially appointed committee of scientists and engineers reviews nominations and makes its recommendations to the President, who selects the laureates.

THE NATIONAL MEDAL OF TECHNOLOGY AND INNOVATION

The National Medal of Technology and Innovation is the Nation's highest award for technological achievement. It recognizes American innovators whose vision, intellect, creativity, and determination have made profound and lasting contributions to our economy and quality of life. Established by Congress and administered by the United States Patent and Trademark Office within the Department of Commerce, more than two hundred Medals have been awarded to individuals, team members, and companies since the first Medal of Technology was presented in 1985 by President Ronald Reagan. An independent committee representing both private and public sectors evaluates the merits of all candidates nominated through an open, competitive solicitation process. The committee forwards its recommendations to the Secretary of Commerce, who makes recommendations to the President for final decision.