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RECIPIENTS OF THE 2019 FRANKLIN INSTITUTE AWARDS ANNOUNCED

BUILDING A SUSTAINABLE FUTURE ▪ EMPOWERING WOMEN AND FOSTERING GIRLS IN STEM PRESERVING OUR ECOSYSTEMS ▪ RACING TO CURE CANCER

PHILADELPHIA December 12, 2018—The Franklin Institute announced today the recipients of the [2019 Franklin Institute Awards](#), bestowing six Benjamin Franklin Medals for transformative advances and global breakthroughs in science and technology, and two Bower Awards—one for extraordinary business leadership, and another for achievement in science, which carries a \$250,000 monetary prize. The laureates will take the stage at a gala ceremony and dinner on Thursday, April 11, 2019, in the Benjamin Franklin National Memorial at Philadelphia’s Franklin Institute, the culmination of a weeklong suite of events designed to provide direct public access to the world-renowned laureates.

The Bower Award and Prize for Achievement in Science is presented to chemical engineer and 2018 Nobel Laureate **Frances Arnold, Ph.D.**, who harnessed the power of nature to make manufacturing and energy production cleaner and greener. **Indra K. Nooyi**, the first female CEO of PepsiCo receives the Bower Award for Business Leadership for her transformational work and global focus on healthier products, the empowerment of women, and the encouragement of girls in STEM. Among the Benjamin Franklin Medal recipients is immunologist and 2018 Nobel Laureate **James Allison, Ph.D.**, whose discoveries have led to new cancer treatments for some of the deadliest forms of the disease.

The recognized accomplishments include:

- The development of fundamental concepts of artificial intelligence that allow machines to learn like the human brain.
- The creation of the world’s smallest wearable “smart” medical monitoring device, revolutionizing the user experience.
- Innovative technologies that have revolutionized the solar energy industry and wireless communication.
- A new therapeutic approach that uses the immune system to successfully treat cancer.
- Scientific studies and environmental policies to mitigate acid rain and preserve fragile ecosystems.
- Harnessing the power of biological evolution to improve the safety and sustainability of chemical manufacturing.
- Elucidating processes of human memory formation that shed light on Alzheimer’s disease and other brain disorders.
- Transformative leadership of a global brand and a commitment to the empowerment of women and girls in STEM.

In the spirit of change and innovation embodied by Benjamin Franklin, the Franklin Institute Awards publicly recognize and encourage extraordinary accomplishments in science and technology since the Institute was founded in 1824. The 2019 recipients join those who came before them—including Nikola Tesla, Marie Curie, Thomas Edison, Albert Einstein, Stephen Hawking, Jane Goodall, and Bill Gates—in the Institute’s unparalleled history of honoring the greatest minds of the last 195 years. To date, 120 laureates are also Nobel Prize recipients, including 2019 Franklin Institute Awards laureates Dr. Frances Arnold and Dr. James Allison.

“Philadelphia is long known for leading the way in science, technology, and innovation,” said Larry Dubinski, President and CEO of The Franklin Institute. “The Franklin Institute Awards Program brings to light some of the greatest minds of our time, who are recognized here in the birthplace of science and innovation, for accomplishments that will inspire us all and transform our world.”

The Franklin Institute Awards Ceremony and Dinner is the culmination of a week-long sequence of inspirational events designed to shine an important spotlight on the advancements in science and technology, as well as extraordinary business leadership.

Throughout the week, public and educational programs provide direct and unprecedented access to the laureates and their work. Bank of America returns in 2019 as Presenting Sponsor of the Awards Ceremony and Dinner for the 17th consecutive year and their support of the Awards Program continues through the Institute's 200th anniversary in 2024.

2019 Franklin Institute Awards | Citations

Bower Award and Prize for Achievement in Science

Frances H. Arnold, Ph.D., FEng

California Institute of Technology

Citation: For pioneering the development of directed protein evolution—a paradigm shift in the engineering of biological catalysts that mimics natural evolution in a laboratory setting and enables greener, less energy-intensive, and less polluting manufacturing processes.

Bower Award for Business Leadership

Indra K. Nooyi

PepsiCo

Citation: For her visionary leadership of PepsiCo, where her focus on global growth, nutrition and healthier products, science and engineering education and training, and the empowerment of women and girls positioned the food and beverage giant as a leading force in worldwide business and social responsibility.

Benjamin Franklin Medal in Computer and Cognitive Science

Marcia K. Johnson, Ph.D.

Yale University

Citation: For developing innovative models of human memory with applications in psychology, brain science, human development, and our understanding of the malleability of memory in real-world settings.

Benjamin Franklin Medal in Earth and Environmental Science

Gene E. Likens, Ph.D.

Cary Institute of Ecosystem Studies and University of Connecticut

Citation: For his pioneering long-term studies of forest, stream, and lake ecosystems, and for his efforts to educate the public and the U.S. government about acid rain and other environmental issues.

Benjamin Franklin Medal in Electrical Engineering

Eli Yablonovitch, Ph.D.

University of California, Berkeley

Citation: For widely used scientific improvements to radio- and light-based technologies in wireless communications and solar energy applications.

Benjamin Franklin Medal in Life Science

James P. Allison, Ph.D.

University of Texas MD Anderson Cancer Center

Citation: For furthering our understanding of the body's immune system, and for conceiving and developing a new therapeutic approach that uses the immune system to successfully treat cancer.

Benjamin Franklin Medal in Materials Engineering

John A. Rogers, Ph.D.

Northwestern University

Citation: For pioneering the engineering of flexible and stretchable electronic systems for e-health and exploratory neuroscience.

Benjamin Franklin Medal in Physics

John J. Hopfield, Ph.D.

Princeton University and Institute for Advanced Study

Citation: For applying concepts of theoretical physics to provide new insights on important biological questions in a variety of areas, including neuroscience and genetics, with significant impact on machine learning, an area of computer science.

Note to Editors:

Laureate images in high-resolution are available at <https://www.fi.edu/press-room/presskits>

The announcement video is available for download at <https://www.fi.edu/awards>

For more information, visit www.fi.edu and follow The Franklin Institute on Twitter @TheFranklin and Instagram @FranklinInstitute, hashtag #franklininstitute.

Founded in honor of America's first scientist, Benjamin Franklin, The Franklin Institute is one of America's oldest and premier centers of science education and development in the country. Today, the Institute continues its dedication to public education and creating a passion for science by offering new and exciting access to science and technology in ways that would delight its namesake. Recognizing outstanding achievements in science throughout the world is one important way that the Institute honors its commitment to Benjamin Franklin's legacy. For more information, please click [here](#).