

# *Commemorative Agenda*

**National Academy of  
Future Scientists and Technologists**



# **GREATNESS AWAITS**

**CONGRESS of FUTURE  
SCIENCE and  
TECHNOLOGY LEADERS**

**June 29, 30, and July 1,  
2018**

# GREATNESS AWAITS

## JOHN C. MATHER, Ph.D.



*Science Director, National Academy of Future Scientists and Technologists; Winner, 2006 Nobel Prize in Physics*

John C. Mather, Ph.D., studied cosmic microwave background radiation and received his Ph.D. in physics from the University of California. As a National Research Council Postdoctoral Fellow at the Goddard Institute for Space Studies in New York, Dr. Mather led a team to propose the Cosmic Background Explorer (COBE) satellite mission to study cosmic microwave background radiation. This work, for which he won a Nobel Prize, helped cement the Big Bang theory of the universe. According to the Nobel Prize committee, “the COBE project can also be regarded as the starting point for cosmology as a precision science.” Dr. Mather has served on advisory and working groups for the National Academy of Sciences, NASA, and the National Science Foundation. In 2007, Dr. Mather was listed among *TIME* magazine’s 100 Most Influential People in The World. In October, 2012, he was listed again by *TIME* in a special issue on New Space Discoveries as one of 25 Most Influential People in Space.

## RICHARD ROSSI



*Master of Ceremonies, Congress of Future Science and Technology Leaders; Founder and Executive Director, National Academy of Future Scientists and Technologists*

Richard Rossi serves as President and Executive Director of the Academy. Mr. Rossi is a co-founder of two of the world’s largest and most prestigious enrichment programs for high-achieving students. In the 27 years of Mr. Rossi’s guidance, more than 640,000 primary school, middle school, secondary school and college students from more than 120 countries attended these academic programs focusing on leadership and career development. These programs were designed to honor, inspire, and motivate the nation’s most promising future leaders. In 2009, Mr. Rossi co-created one of the largest gatherings of high-achieving youth in Washington, D.C., history: 15,300 young men and women who came together to experience the historic nature of President Barack Obama’s first inauguration. Participants included Archbishop Desmond Tutu, General Colin Powell, and former Vice President Al Gore. Mr. Rossi also serves on the Board of Directors of PinnacleCare, a prominent private health advisory company in Baltimore, Maryland. Mr. Rossi now devotes himself to the National Academy of Future Scientists and Technologists and other academic programs on a full-time basis.

**COLOR GUARD PRESENTATION—  
U.S.S. CONSTITUTION COLOR GUARD**

**SINGING OF THE NATIONAL  
ANTHEM—ZOE MARTIN, UXBRIDGE, MA**

**ASU OZDAGLAR, Ph.D.**



*Department Head,  
Massachusetts Institute  
of Technology Electrical  
Engineering and Computer  
Science*

Asu Ozdaglar, Ph.D., is the department head of Electrical Engineering and Computer Science (EECS) at the Massachusetts Institute of Technology. She is also the Joseph F. and Nancy P. Keithley Professor of EECS. Her research expertise includes optimization theory and game theory, with applications in communication, social, and economic networks; distributed optimization and control; and network analysis with special emphasis on contagious processes, systemic risk and dynamic control. Dr. Ozdaglar is the recipient of a Microsoft fellowship, the MIT Graduate Student Council Teaching Award and the NSF Career Award.

**PAIGE BROWN**

*Winner, Global Good, 2016  
Intel Science Talent Search*

Paige Brown is a first place medal of distinction winner of the 2016 Intel Science Talent Search for her development of a cost-effective filter, largely made of calcium alginate strands capable of removing phosphate pollution from stormwater. She is currently studying at Stanford University at the crossroads of chemical engineering and materials science. There, she is continuing her research, aiming to make her device more efficient using computer-aided design and alginate bioprinters, and applicable to more pollutants. Beyond her research, she is also the lead mechanical engineer for a record-breaking



high altitude balloon altitude control system called ValBal, within the Stanford Space Initiative.



**SHELDON GLASHOW,  
Ph.D.**

*Winner, 1979 Nobel Prize  
in Physics*

Sheldon Glashow,  
Ph.D., is an American

theoretical physicist who received the 1979 Nobel Prize in Physics for his work on the electroweak theory, which explains the unity of electromagnetism and the weak force. Dr. Glashow also developed theories regarding quarks, or elementary particles, and is credited with advancing our understanding of these particles with the proposal of a new quark called a charm. Shortly after receiving the Nobel Prize, Dr. Glashow became a professor at Boston University conducting research in several areas, including the Big Bang theory, electroweak symmetry breaking, dark matter and cosmology.

**AUSTIN WANG**

*Grand Prize Winner, 2016  
Intel International Science  
and Engineering Fair*

Austin Wang has been researching waste to



electricity conversion using bacteria since ninth grade. He developed novel bioengineering approaches to boost the performance of bacterial electricity in a cost-effective way. In 2015, Mr. Wang won Best Project at the Canada-Wide Science Fair, and the Grand Prize at the International Sanofi BioGENEius Challenge. In 2016, he was the recipient of the top prize, the Gordon E. Moore Award, at the Intel International Science and Engineering Fair. Besides science, Mr. Wang also enjoys playing and writing music. He is currently studying computer science at Princeton University.

## MEGAN J. SMITH

*CEO, shift7; Former Chief Technology Officer of the United States*

Megan Smith is an award-winning entrepreneur, engineer, and tech evangelist. She served as the third United States Chief Technology Officer from 2014 to 2017. She spent ten years as Vice President of New Business Development at Google. She holds bachelor's and master's degrees in mechanical engineering from MIT and is a lifetime member of the board. Ms. Smith has recently co-founded a company, shift7, focusing on tech-forward networked innovation for impact and economic inclusion.



## SEAN STEPHENSON, DCH



*Speaker, Author, Therapeutic Life Coach*

Sean Stephenson, DCH, was predicted not to survive at birth because of a rare bone disorder that stunted his

growth and caused his bones to be extremely fragile. Despite his challenges, he took a stand for a quality of life that has inspired millions of people around the world, including Sir Richard Branson, President Bill Clinton, and his Holiness the 14th Dalai Lama. Dr. Stephenson has appeared on a variety of shows including *Oprah* and *Jimmy Kimmel Live!*. *The Biography Channel* did a feature on his life called "Three Foot Giant". His latest book, *Get Off Your But*, has been released in 10 different languages around the world.

**SATURDAY • JUNE 30**

## SHREE BOSE

*Grand Prize Winner, 2011 Google Science Fair; Co-founder, Piper*

At age 17, Shree Bose triumphed over 10,000 competitors to become the Grand Prize Winner of the first-ever Google Global Science Fair in 2011. For her winning research, Ms. Bose discovered how ovarian cancer cells grow resistant to a chemotherapy drug called cisplatin. Her work has opened up new avenues for research and medicine, and she has presented to former President Obama and directors of the National Institutes of Health. Ms. Bose is also a passionate advocate for better STEM education, and is the co-founder of Piper, a company creating education toys for kids. Ms. Bose is currently attending Duke University School of Medicine where she is pursuing a dual M.D./Ph.D.



## RICHARD BROWNING

*Founder and Chief Test Pilot, Gravity Industries Ltd.*

Richard Browning is an ultra-marathon runner, an ex-Royal Marine reservist, a former city commodity trader and a pioneering inventor. He defines his approach to life as one pursuing 'innovation and endeavor'. Mr. Browning co-founded Gravity Industries Ltd., the company behind the Daedalus Mark 1, a flight suit that uses six miniature jet engines to achieve vertical flight. In November 2017, Mr. Browning set a world record for the fastest speed in a body-controlled jet engine-powered suit, by reaching a speed of 32.02 mph.

## **SYLVIA A. EARLE, Ph.D.**



*Explorer in Residence, National Geographic Society; Founder, Sylvia Earle Alliance/Mission Blue and Deep Ocean Exploration and Research Inc.*

Sylvia A. Earle, Ph.D., is an author of more than 200 publications and leader of more than 100 expeditions with over 7,000 hours underwater. Dr. Earle's research concerns the ecology and conservation of marine ecosystems and development of technology for access to the deep sea. She is the subject of the Emmy Award-Winning Netflix documentary, *Mission Blue*; was named *TIME* magazine's first Hero for the Planet and a Living Legend by the Library of Congress; and is a winner of the 2009 TED Prize, the Royal Geographic Society 2011 Patron's Medal and the National Geographic 2013 Hubbard Medal.

## **DEBORAH BEDOR, Ph.D.**

*CEO, College Admission Central*



As one of the nation's top admissions experts, Deborah Bedor, Ph.D., has had the pleasure of coaching and advising Top Tier, Ivy League, and celebrity pre-college students for the past 27 years, guiding them to acceptance into our nation's finest universities. Dr. Bedor is a recipient of the Schaff Memorial Prize for Scholarship. She works with students globally on every part of the college application process to help them become standout candidates.



## **VINEET EDUPUGANTI**

*Winner, 2016 Siemens Competition in Math, Science and Technology*

Vineet Edupuganti was the national winner of the 2016 Siemens Competition in Math, Science & Technology for the development and modeling of a high-performing, low-cost biodegradable battery that can dissolve after a period of useful operation. This technology

can be used to power ingestible medical devices, environmental sensors and other applications where dissolvable power sources are desirable. Mr. Edupuganti received a 3rd place Grand Award at the Intel International Science and Engineering Fair in 2015 and 2016 and also received the special award for Best Project in Chemistry from the American Chemical Society at the same competition. Mr. Edupuganti currently attends Stanford University and hopes to find real-world applications for his research that he can eventually take to market as an entrepreneur.

## **RYAN LESLIE**

*Co-founder and CEO, SuperPhone*



Ryan Leslie is a Grammy nominated recording artist, multi-platinum music producer and avid technologist. In addition to logging studio time with Madonna, Jay-Z, Kanye West and Beyoncé, he is the architect and ultimate case study for his company Disruptive Multimedia's simple CRM for creators, a Twilio-enabled product called SuperPhone. Bravely opting to remove his latest album from iTunes, he used an inbound SMS campaign to drive over \$2 million in gross revenue by selling an album direct to consumer to just 15,000 fans. He holds a B.A. in Government from Harvard University.

## **ROBERT M. METCALFE, Ph.D.**



*Recipient, 2005 National Medal of Technology and Innovation; UT Austin Professor of Innovation*

Robert M. Metcalfe, Ph.D., was an internet pioneer starting

at MIT, Harvard, and Stanford. He invented Ethernet at the Xerox Palo Alto Research Center and founded 3Com Corporation. Dr. Metcalfe is now Emeritus Partner at Polaris Venture Partners. In 2011, Dr. Metcalfe became Professor of Innovation in the Cockrell School of Engineering at The University of Texas at Austin. He is an MIT Life Trustee Emeritus, member of the National Academy

of Engineering, and in 2005 he received the National Medal of Technology for his “leadership in the invention, standardization, and commercialization of Ethernet.”



**BO EASON**

*Author and Performer,  
“Runt of the Litter”*

Bo Eason started his career in the NFL as a top pick for the Houston Oilers, continuing on with the San Francisco 49ers. During his five-year career, Mr. Eason competed against and beside some of the greatest players of his generation. In 2001, he wrote and performed his one-man play, *Runt of the Litter*. Mr. Eason toured with the play to over 50 cities, and it is now being adapted as a major motion picture. He is dedicated to helping others tap into the power of their personal story and become effective, persuasive communicators.

**EASTON LACHAPPELLE**

*Founder and CEO,  
Unlimited Tomorrow*

Easton LaChappelle is shaking up the prosthesis industry.



Self-taught, he began creating his first robotic hand using Legos, electrical tubing and fishing line. In 2014, he founded Unlimited Tomorrow with his business partner, Tony Robbins, to take this technology to the next level. Recently, he fitted a 10-year-old girl with possibly the most advanced prosthetic device on the market. This is achieved by using today’s newest technologies such as 3D printing, 3D scanning, artificial intelligence and machine learning. His goal is to create advanced functional technology at a global level that anyone can afford.

**CYNTHIA BREAZEAL, Sc.D.**



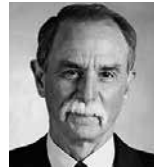
*Associate Professor of Media Arts and Sciences, MIT Media Lab; Founder and Chief Scientist of Jibo, Inc.*

Cynthia Breazeal, Sc.D.,

is a pioneer of social robotics and human robot interaction. She has developed some of the world’s most famous robotic creatures ranging from small hexapod robots, to embedding robotic technologies into familiar everyday artifacts, to creating highly expressive humanoid robots and robot characters. Her research focuses on developing the principles, techniques, and technologies for personal robots that are socially intelligent, interact and communicate with people in human-centric terms, work with humans as peers, and learn from people as an apprentice.

**DAVID J. WINELAND, Ph.D.**

*Winner, 2012 Nobel Prize in Physics; Recipient, 2007 National Medal of Science*



David J. Wineland, Ph.D.,

was awarded the 2012 Nobel Prize in Physics for “ground-breaking experimental methods that enable measuring and manipulation of individual quantum systems.” He is also the recipient of the 2007 National Medal of Science in the engineering sciences. Dr. Wineland has been a member of the National Institute of Standards and Technology for over 40 years. An enduring goal of Dr. Wineland’s work has been to increase the precision of atomic spectroscopy, the measurement of the frequencies of atoms’ characteristic vibrations. This expanded to development of accurate atomic clocks and demonstrations of the basic building blocks of a quantum computer.



**SCOTT FLANSBURG**

*The Human Calculator*

Scott Flansburg, known as *The Human Calculator*®,

is an educator, speaker, Guinness World Record

holder, bestselling author, and star of

*The Human Calculator* on the History Channel. Mr. Flansburg has been teaching math and entertaining people around the world and on television with his superhuman skills for more than 25 years. According to a recent scientific study, his mental calculations are faster than his ability to speak the answers. Mr. Flansburg's mission is to help people improve their basic math skills regardless of their age, and convince them that math is fun. He has appeared on programs including *The Oprah Winfrey Show*, *The Tonight Show with Jay Leno*, *The Ellen DeGeneres Show*, *NPR*, *CNN*, and others.

## SUNDAY • JULY 1

### AMBER YANG

*Winner, 2017 Intel*

*International Science and Engineering Fair*

Amber Yang is a physics student at Stanford University



whose primary interest is astrophysics. Ms. Yang was named to the 2018 *Forbes*' 30 Under 30 list and was the winner of the 2017 Intel Foundation Young Scientist Award at the Intel International Science and Engineering Fair for her research on novel techniques for the tracking of space debris. Ms. Yang developed a novel artificial neural network system capable of tracking the orbits of space debris to an accuracy that is ten times more effective than current systems. Ms. Yang has presented her research at the European Organization for Nuclear Research (CERN) in Geneva, Switzerland and at the White House Frontiers Conference hosted by former President Barack Obama.



### JAY HAMMONDS

*VIP Operations, Facebook*

Jay Hammonds currently works on the VIP Operations team in support and technical project management for the CEO & COO at Facebook. His primary objective is to ensure the executives are

efficient and effective from a technical standpoint while providing creative technical solutions for the IT organization. Prior to his time with Facebook, he led IT for Instagram. In 2012, Mr. Hammonds helped create Year Up at Facebook, which has helped bring in over 150 diverse interns. Mr. Hammonds was named in *Forbes*' 30 Under 30.

### KENNETH LACOVARA, Ph.D.

*Dean, School of Earth & Environment at Rowan University; Director, Jean & Ric Edelman Fossil Park*  
Kenneth Lacovara, Ph.D., famously unearthed some of



the largest dinosaurs ever to walk our planet, including the super-massive Dreadnoughtus, which at 65 tons weighed more than seven T.Rex. By using the modern technologies of 3D imaging, 3D printing, robotics, and medical modeling techniques, Dr. Lacovara's work is helping to shift our perspective of giant herbivorous dinosaurs from their historic portrayal as hapless lumbering prey to that of fearsome, hulking, hyper-efficient eating machines. Dr. Lacovara led the effort to create the Rowan University Fossil Park in suburban Mantua Township, New Jersey. The quarry preserves a rich cache of marine fossils that Dr. Lacovara is using to shed light on the calamitous events that wiped out the dinosaurs.



### JEFF SPENCER, D.C.

*Cornerman for World-class Achievers*

For 40 years Jeff Spencer, D.C., has served as The

Cornerman™ to gold medal-winning Olympians, business leaders and high performers who are ready to become champions and full potential players. He knows how to make winning big the new normal for individuals, teams and organizations because he's been there - Olympian, sports scientist, artist, author, chiropractor, educator, father, and cornerman. He has been featured in *Fortune*, *Huffington Post* and *NPR*.

## STANLEY G. LOVE, Ph.D



*NASA Astronaut*

Stanley G. Love, Ph.D., was selected as a NASA astronaut in 1998. He has a Master of Science degree and Doctorate of Astronomy. In 2008, Dr.

Love flew aboard STS-122 to deliver and install the European Space Agency's Columbus module to the station. While on board, Dr. Love performed two spacewalks to prepare for the installation, added two science payloads and carried a failed ISS gyroscope to the shuttle for return to Earth. He currently works as a crew representative for the Space Launch System (SLS) and continues to help plan for human exploration of asteroids, the moon, and Mars.

## EUGÉNIE VON TUNZELMANN

*VFX Supervisor, Framestore*

Eugénie von Tunzelmann's background is a rare mixture of technology and science combined with creativity, a stellar career working on over 15 major Hollywood films. Ms. Tunzelmann was CG Supervisor on the VFX Oscar-winning *Interstellar*, during which she worked with a Nobel Prize-winning physicist to build models of black holes and wormholes. For the last two years Ms. von Tunzelmann has been pioneering one of Framestore's most ambitious projects: a move into theme park ride production, including multiple rides in Asia. She has written genetic algorithms to evolve virtual robots, and built a self-playing glockenspiel.



## RIKARD STEIBER

*President, Viveport;  
Senior Vice President of  
Virtual Reality, HTC*

Rikard Steiber is a virtual reality evangelist and an angel investor, looking for great start-up teams that want to change the world. Viveport, the app store for virtual reality (VR), is a global destination for VR content and experiences. Its mission is to unleash human imagination from the limitations of reality and democratize

access to the world's most diverse selection of immersive experiences. HTC Vive is a first-of-its-kind virtual reality platform designed by HTC and Valve. In addition to his roles at Viveport and HTC, Mr. Steiber is the founder of Women in Tech and Women in VR in Europe.

## MARC RAIBERT, Ph.D.



*Founder and CEO, Boston Dynamics*

Marc Raibert, Ph.D., is founder and CEO of Boston Dynamics, a company that creates some of the

world's most advanced dynamic robots, such as BigDog, Atlas, Spot and Handle. These robots are inspired by the remarkable ability of animals to move with agility, dexterity, perception, and intelligence. A key ingredient of these robots is their dynamic behavior, which contributes to their effectiveness and versatility in the real world. Before starting Boston Dynamics, Dr. Raibert was Professor of Computer Science and Robotics at MIT and Carnegie Mellon. While at CMU and MIT, Dr. Raibert founded the Leg Laboratory, a lab that helped establish the scientific basis for highly dynamic robots and that set the stage for the work done at Boston Dynamics.

## MARIE MIMIAGA

*National Society of  
Collegiate Scholars*

Marie Mimiaga is the Associate Director of Strategic Partnership and Programs for the National Society of Collegiate Scholars (NSCS), a leading certified honor society which recognizes and elevates high-achieving college students through scholarship, leadership, and service. Ms. Mimiaga helped found NSCS' high school program, The Society of Torch & Laurel, which recognizes high school high-achievers and provides them and their families with the vital resources to transition into college successfully. She also created the Torch & Laurel Mentorship Program, which pairs Torch & Laurel Scholars with high-achieving NSCS college mentors.

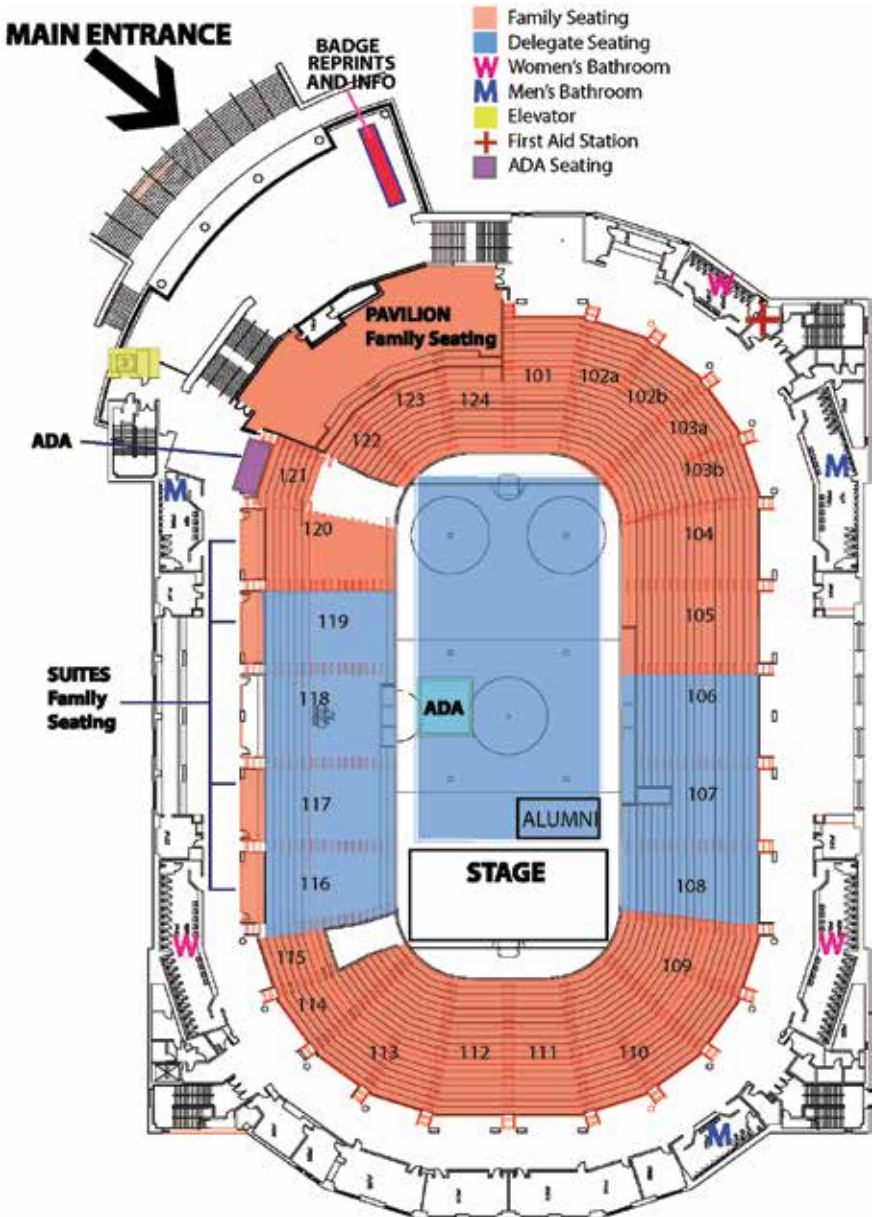


## COMMENCEMENT AND DANCE



## FAMILY AND DELEGATE SEATING

Family seating and standing room is available in seating designated by the **RED** areas. Seats designated in the **BLUE** areas are reserved for delegates.



**National Academy of Future Scientists and Technologists**  
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