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**Liberty Science Center Hosts 12<sup>th</sup> Annual Genius Gala,  
Honoring the Nuclear Physicist Who Achieved the Holy Grail of Nuclear Fusion,  
Neurologist Using Implanted Electrodes to Reverse Effects of Traumatic Brain Injuries,  
the First African-American to Receive a PhD in Evolutionary Biology,  
and William Shatner, the Oldest Person to Go into Space**

*Distinguished Presenters at the May 20 Event in Jersey City, NJ, to include Governor Philip Murphy,  
Mayor Steven Fulop, Ralph and Karen Izzo, and Martine Rothblatt*

*Musical Performance by Staten Island's PS22 Student Chorus*

**JERSEY CITY, N.J., May 16, 2024** – In December of 2022, **Andrea Kritcher, PhD**, engineering design lead at the Lawrence Livermore National Laboratory, and her team achieved the “Holy Grail” of nuclear fusion—a clean source of potentially limitless energy—by creating the first ever controlled fusion ignition that produced more energy than the experiment consumed. Repeating the feat three additional times in 2023, and at least once more since then, Kritcher’s insights led to a monumental breakthrough that could profoundly impact the world’s energy production for generations.

Over 5 million people have been left permanently disabled by traumatic brain injuries in the United States alone. An expert on neurological disorders of consciousness, **Dr. Nicholas Schiff** led a pioneering experiment in which five people who had debilitating brain injuries were able to achieve improved cognitive function after receiving electrode implants that stimulated an almond-size structure deep within their brains. Through their work with implanted electrodes, a kind of pacemaker for the brain, Schiff and his team have brought potentially the first effective therapy for chronic brain injuries.

A New Jersey native, **Dr. Joseph L. Graves, Jr.** did pioneering work in the genetics of aging and the use of metals and nanomaterials to defeat harmful bacteria. The first African American to receive a PhD in evolutionary biology, he has drawn on his background in evolutionary biology and genetics to dispel misconceptions about biology and race, a topic on which he has written five books. He has accomplished all this after overcoming being mislabeled with learning difficulties in childhood.

On Monday, May 20 at 6:00 pm, Liberty Science Center will bestow the “Genius Award”—its highest honor—on Drs. Kritcher, Schiff and Graves, recognizing their leadership and vision within their respective scientific fields and how their research has inspired world-changing innovations.

The Genius Gala will also recognize the legendary actor and space adventurer **William Shatner** with the 2024 Icon Award for his advocacy of Earth and for inspiring generations to appreciate and embrace the wonders of space through his portrayal of Captain James T. Kirk aboard the USS Enterprise from the *Star Trek* TV series and movies. Shatner had an epiphany about the fragility of Earth after he looked back at our planet from space, which he rocketed to aboard Blue Origin's *New Shepard*, at the age of 90, officially becoming the world’s oldest living space traveler.

Paul Hoffman, the President and CEO of the Center who created the annual Genius Awards in 2011, will preside over the ceremony at the Science Center, 222 Jersey City Blvd., Jersey City, NJ.

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“This year’s class of Genius awardees is a true testament to what this honor seeks to convey. Through faith in their convictions, this group stood in the face of what appeared to be unbeatable odds to succeed and enlighten our world,” said Hoffman. “Their breakthroughs and courage to go against the grain of what was expected of them sets them in a class of their own and lays the foundation for future generations of geniuses to build on what they have started.”

The evening’s distinguished presenters will include **Governor Philip Murphy**; **Jersey City Mayor Steven Fulop**; LSC trustee and retired chairman of PSEG **Ralph Izzo** and his wife **Karen**; and biotech innovator and 2019 Genius Award recipient **Martine Rothblatt**.

The Genius Gala is a yearly commemoration of innovation, creativity, science, and technology. It also serves as the Center’s chief fundraising event – since its inception, the Genius Gala has raised approximately \$25 million to benefit LSC’s STEM education programs, helping to make world-class science learning accessible to students, teachers, and families, especially those in high-needs communities.

The 2024 Genius Awardees are:

- **Andrea "Annie" Kritcher, PhD**, a nuclear physicist and engineer at Lawrence Livermore National Laboratory. She was the engineering design lead on the experiment that achieved the holy grail of nuclear physics in December 2022 and was repeated at least four times since then: the world’s first controlled nuclear fusion reaction that released more energy than it consumed. Nuclear fusion is the mechanism that powers the sun and other stars. Unlike nuclear fission—the energy-generating reaction in today’s nuclear power plants—there are no radioactive byproducts in nuclear fusion. It is a clean source of energy that could potentially be harnessed to help wean us off fossil fuels.
- **Nicholas Schiff, MD**, a leading expert on neurological disorders of consciousness. The author of more than 100 scientific publications and 12 US and international patents, Dr. Schiff is the Jerold B. Katz Professor of Neurology and Neuroscience in the Feil Family Brain and Mind Research Institute at Weill Cornell Medicine and Attending Neurologist at New York-Presbyterian/Weill Cornell Medical Center in New York City. Traumatic brain injuries like car accidents have left more than five million Americans permanently disabled. In a pioneering experiment led by Dr. Schiff and reported in the medical literature in December 2023, five people who had debilitating brain injuries were able to achieve improved cognitive function after receiving electrode implants that stimulated an almond-size structure deep within their brains called the central lateral nucleus. Implanted electrodes, a kind of pacemaker for the brain, offer the promise of becoming the first effective therapy for chronic brain injuries. Schiff and his colleagues's successful experiment builds on years of research into neuronal signaling in the brain and how it can be disrupted or shut down (coma) if the brain is severely jostled in, say, a car crash or a fall.
- **Dr. Joseph L. Graves Jr.**, is the MacKenzie Scott Endowed Professor of Biology at North Carolina Agricultural and Technical State University. Also known as “Black Darwin,” Professor Graves is the first African American to receive a PhD in evolutionary biology. He has done pioneering work in the genetics of aging and is a prolific author and speaker dispelling misconceptions about biology and race. He has written five books, including: *The Emperor’s New Clothes: Biological Theories of Race at the Millennium*, *The Race Myth: Why We Pretend That Race Exists in America*, and most recently *A Voice in the Wilderness: A Pioneering Biologist Explains How Evolution Can Help Us Solve Our Biggest Problems*. Born in Westfield, New Jersey, in 1955 at the start of the civil rights movement, Graves had to teach himself to read because both his parents were illiterate. His elementary school wrongly considered him to be mentally disabled and placed him in a low academic track. He proved the system wrong when he not only finished high school but went on to become the only graduate from his class to earn a PhD in science. A chess enthusiast, Graves says that his childhood interest in science was fueled by *Star Trek*.

Not just a fundraiser, Liberty Science Center's Genius Gala serves to bring attention to and celebrate the creative individuals that are changing our world for the better through science. The 750,000+ visitors to the Center this year will find the 2024 inductees in the Center's permanent Genius Gallery display, along with previous recipients: John C. Mather, Katalin Karikó, Dr. Uma Valeti, Hugh Herr, Priyamvada Natarajan, Dr. Robert Montgomery, William Conan Davis, Jennifer A. Lewis, Moshe Safdie, Katherine Johnson, Ray Kurzweil, Marc Raibert and SpotMini, Frank Gehry, Jack Horner, Ellen Langer, Kip Thorne, Sir Richard Branson, Garry Kasparov, Jane Goodall, Oliver Sacks, Temple Grandin, Dean Kamen, Sylvia Earle, Craig Venter, Cori Bargmann, Ernő Rubik, Jeff Bezos, Vint Cerf, Jill Tarter, Sara Seager, George Church, Vitalik Buterin, Laurie Santos, Chris Messina, Martine Rothblatt, and Drs. Sally and Bennett Shaywitz.

Attendees will enjoy a musical performance by the award-winning **PS22 Chorus of Staten Island**. Formed in 2000, the choral group of 85 4<sup>th</sup> and 5<sup>th</sup> grade students has been internet sensations for years, racking up hundreds of millions of views for their videos on social media. The group has been featured on *Nightline*, *The Oprah Winfrey Show*, *The View*, *Sesame Street*, and the 2011 Academy Awards. Not a school for the arts, the PS 22 Chorus PS22 Chorus features a multicultural group of ordinary children achieving extraordinary accomplishments, with the mission to model harmony, both musically and otherwise, and serve as a reminder that through hard work, anything is possible.

**The Paul and Phyllis Fireman Charitable Foundation** is the Platinum Chair of the event, which is attended by hundreds of industry leaders and philanthropists from the NY/NJ metropolitan area.

The Innovation Chairs are **Gregory Tusar**, Head of Institutional Product, Coinbase; and **Josh Weston**, Honorary Chairman, ADP.

The Co-Chairs of the Gala are **David Barry**, Founder and CEO, Urby; **Sheri Bronstein**, Chief Human Resources Officer, Bank of America; **Alma DeMetropolis**, Managing Director, Market Manager, J.P. Morgan; **Clarissa Goncalves**, CFO, Global Product & Technology, Global Security, Strategy, and Procurement, ADP; **Richard M. Hodosh, MD**, Former Medical Director, Atlantic Brain and Spine Institute; **Stephen R. Howe, Jr.**, Retired Chairman, Ernst & Young LLP; **Ralph Izzo**, Retired Chairman of the Board, CEO, President, PSEG; **Bruce L. Levy**, President and CEO, BMR Energy; **Marsh McLennan Agency**; **Chirag Patel**, Co-CEO and President, Amneal Pharmaceuticals; **Michael Prilutsky**, EVP, RWJBarnabas Health, President and CEO, Jersey City Medical Center; **Al Reba**, SVP, US, Cardiovascular and Established Brands, Bristol Myers Squibb; **Anthony Skiadas**, CPA, CFO, Verizon Communications; **Caroline Tillet**, Chief Scientific Officer, Kenvue; and **Timothy Tracy**, Global Client Service Partner, Private Equity and Americas Private Equity Leader, EY.

### **About Liberty Science Center**

Liberty Science Center ([LSC.org](http://LSC.org)) is a 300,000-square-foot, not-for-profit learning center located in Liberty State Park on the Jersey City bank of the Hudson near the Statue of Liberty. Dedicated to inspiring the next generation of scientists and engineers and bringing the power, promise, and pure fun of science and technology to learners of all ages, Liberty Science Center houses the largest planetarium in the Western Hemisphere, 12 museum exhibition halls, a live animal collection with 110 species, giant aquariums, a 3D theater, live simulcast surgeries, a tornado-force wind simulator, K-12 classrooms and labs, and teacher-development programs. More than 250,000 students visit the Science Center each year, and tens of thousands more participate in the Center's off-site and online programs. Welcoming more than 750,000 visitors annually, LSC is the largest cultural institution in New Jersey and the largest interactive science center in the NYC-NJ metropolitan area.