75th Annual Regeneron International Science and Engineering Fair Awards Teen Scientists from Around the World More Than $9 Million in 2025 Competition

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Adam Kovalčík, 19, receives $100,000 Top Award for his development of a medicine that can stop viruses from copying genes and controlling infections at the world's largest pre-college STEM competition in Columbus, Ohio

TARRYTOWN, N.Y. and WASHINGTON, May 16, 2025 (GLOBE NEWSWIRE) -- Regeneron Pharmaceuticals, Inc. (NASDAQ: REGN) and Society for Science (the Society) announced that **Adam Kovalčík, 19, of Dulovce, Slovakia,** won the $100,000 George D. Yancopoulos Innovator Award at the 75th Regeneron International Science and Engineering Fair (Regeneron ISEF), the world's largest pre-college science and engineering competition. The award is named in honor of pioneering drug developer and Regeneron co-Founder, Board co-Chair, President and Chief Scientific Officer. Other top prizes went to projects in sustainable plastics engineering, air quality detection and advancement in prosthetics.

The top winners were recognized during two award ceremonies: the Special Awards on May 15 and the Grand Awards Ceremony on May 16. In total, more than $9 million in awards and scholarships were distributed, honoring finalists for their creativity, innovative thinking and scientific rigor. The competition brought together nearly 1,700 young scientists representing 48 U.S. states and more than 60 countries, regions and territories.

Adam Kovalčík, **19, of Dulovce, Slovakia,** won first place and received the **$100,000 George D. Yancopoulos Innovator Award** for his new way of making the investigational antiviral drug galidesivir. Early clinical trials have shown this drug to be safe in humans. Animal tests show it may be effective against a broad spectrum of viruses. But it is expensive to produce. By starting with cheap materials from corn husk waste, he designed a shorter, more efficient way of making galidesivir. He cut the process from 15 to 10 steps and made almost twice as much drug in less time. He then used these reactions to create a new antiviral drug that may work even better. His new way to make these medicines can greatly decrease their cost, from $75/gram to about $12.50/gram. By making these medicines easier to produce, they are also easier to study, and if approved, more accessible, giving us more options to treat viral infections.

Benjamin Davis, 16, of Wrentham, Massachusetts, received the **$75,000 Regeneron Young Scientist Award** for creating a desktop plastic recycling system. The user-friendly system can recycle 3D printer waste and other plastics. It turns them into filaments for 3D printing. Up to 67% of the filament used in a typical 3D printing project may end up as waste. Using electrical, mechanical and chemical engineering methods, Benjamin combined pultrusion (push-through) and extrusion (pull-through) processes. Together, this made the process about 45% more efficient. His device is faster than other home recyclers and creates a higher quality product. Its easy operation means nontechnical users can recycle and 3D print more efficiently. His design is an effective recycling machine that costs 90% less than commercial options.

Siyaa Poddar, 16, of Chandler, Arizona, received the **$75,000 Regeneron Young Scientist Award** for her device, which rapidly detects toxic dusts. In the U.S. Southwest, toxic silica and uranium dusts from abandoned mines are a public health challenge. They contaminate the soil, air and groundwater, and can trigger autoimmune diseases like Sjögren's syndrome. Rates of Sjögren's syndrome are disproportionately high on Indigenous reservations in the Southwest, where many abandoned mines remain. Currently, there's no easy, fast or affordable way to measure how much of these toxins are in the air. Siyaa designed two low-cost detectors using chemicals that easily react with uranium or silica by changing color. She trapped these chemicals in a framework made of metal atoms and organic molecules to stabilize them. Her system is an affordable, easy-to-use way to monitor air quality.

Samuel Skotnikov, 17, of Highland Village, Texas, and **Chanyoung Kim** and **Eeshaan Prashanth, both 16, of Flower Mound, Texas,** received the **$50,000 Gordon E. Moore Award for Positive Outcomes for Future Generations** for creating a brain-controlled bionic prosthetic leg. Current robotic limbs are expensive and can make movements feel unnatural. The team started by measuring the walking motion of their classmate, Aiden, with his usual prosthetic leg. They saw that the prosthetic's stiffness forced the remaining part of his amputated leg to work much harder than his other leg. They designed their prosthetic leg, Neuroflex, to read the wearer's brain signals through an EEG headband. The signals tell Neuroflex how the wearer wants to move, and Neuroflex uses its motors to support that movement. They also designed an ankle with more realistic joints. When the team tested their prototype on Aiden, it guessed the right movement 98% of the time. Their adaptable model could also relieve some of the cost burden of prosthetic limbs.

"Congratulations to the winners of this year's Regeneron International Science and Engineering Fair," said Maya Ajmera, President and CEO of Society for Science and Executive Publisher of Science News. "I am deeply inspired by the creative, passionate and dedicated finalists from around the world who have come together—across borders, cultures and scientific disciplines —in the shared pursuit of science. Adam's research into antiviral medicines has the potential to change the impact and

scale of how people can benefit from such important life-saving treatments. His research gives me great hope for the future of global health and scientific innovation."

Now in its landmark 75th year, Regeneron ISEF remains the premier global stage for the next generation of scientists and engineers. This milestone year celebrates decades of scientific discovery, boundary-pushing innovation and international collaboration, uniting students from around the world in a powerful exchange of ideas. Through Regeneron ISEF and other STEM programming, Regeneron and the Society are fostering the next generation of STEM leaders who are pioneering solutions to improve our world. Since 2020, Regeneron has provided STEM experiences to over 3.2 million students, surpassing its goal of 2.5 million by 2025.

"Congratulations to this year's extraordinary Regeneron ISEF finalists and winners," said George D. Yancopoulos, M.D., Ph.D., co-Founder, Board co-Chair, President and Chief Scientific Officer of Regeneron. "My own high school science project lit a fire in me that changed the course of my life. Today, I see these students carrying that same spark forward by asking bold questions, pushing boundaries and proving that innovative science can take on humanity's biggest challenges."

Other top honors from the competition include:

XinYan Chen, 17, of **San Gabriel, California**, received the **$10,000 Craig R. Barrett Award for Innovation** for her mobile indoor formaldehyde detector. Formaldehyde is a chemical found in many household goods that can cause disease, including cancer. Other detectors work by either trapping chemicals until they are full, or by breaking them down with expensive materials. XinYan designed a low-cost material that breaks down formaldehyde into carbon dioxide and water. She used the material to build a device that measures and destroys the poison at the same time. Her device lowered the amount of formaldehyde in a closed box by almost 90% in 18 hours. XinYan's device makes it cheaper and easier to both measure and improve indoor air quality.

Aleksandra Petkova, 18, of **Sofia, Bulgaria**, received the **$10,000 H. Robert Horvitz Prize for Fundamental Research** for her research on the relationship between a boat's speed and the shape of its wake. When a boat travels faster than the waves it makes in the water, it makes a narrower wake. This type of wake creates more drag on the boat, which slows it down. Aleksandra looked at aerial photos of wakes and tested wake angles using a remote-controlled boat and a yacht. She figured out how to use a ship's size to predict the speed it can travel before it starts leaving a narrow wake. Aleksandra's ship wake model could help ship operators minimize drag by traveling at the ideal speeds for their ships.

Cory Seelenfreund, 17, of **New Rochelle, New York**, received the **$10,000 Peggy Scripps Award for Science Communication** for his study of the relevance of memory in the Prisoner's Dilemma. Prisoner's Dilemma is a classic game theory problem where two people accused of a crime decide whether to snitch or stay silent. Cory created computer simulations and mathematical models to test how selfishness and memory affect the game. Memory of just one game often improved results, but players with better memory won in more complex scenarios. He found the best outcomes when players had a variety of self-interested and altruistic behaviors. These findings can help design smarter AI bots and other programs that need to "get along" with humans.

Uma Sthanu, 17, of **Austin, Texas**, received the **$10,000 Mary Sue Coleman Award for Life Science Innovation & Impact** for her research on regenerating nerve cells. The neurons making up the human brain are powerful but fragile. Disease and injury can damage neurons and scientists have not yet found a way to regrow them. Uma studied the effects of an important hormone-like compound called PGE2 on damaged brain cells. She used advanced techniques to study how PGE2 treatment affects these broken neurons in the lab. She hopes this work will help researchers find better treatments for brain diseases and traumatic brain injuries.

Pragathi Kasani-Akula, 17, of **Cumming, Georgia**; **Aarushi Pandey**, **17,** of **Conroe, Texas**; and **Vrishank Chandrasekhar, 18,** of **San Jose, California**, received the **Dudley R. Herschbach SIYSS Award**, which provides finalists an all-expense paid trip to attend the Stockholm International Youth Science Seminar during Nobel Week in Stockholm, Sweden.

Ethan Yan, **15,** of **Groton, Massachusetts,** and **Abigail Qi**, **16,** of **Baton Rouge, Louisiana**, received the **EU Contest for Young Scientists Award**. Their projects will represent Regeneron ISEF at the EU Contest for Young Scientists to be held this September in Riga, Latvia.

For more information about the top winners and access to visual assets visit our media kit: https://www.societyforscience.org/regeneron-isef-2025-media-kit/

The full list of Special Award ISEF 2025 Finalists can be found at: https://www.societyforscience.org/press-release/regeneron-isef-2025-special-awards-winners

In addition to the Top Award winners, more than 450 finalists received awards and prizes for their innovative research, including "First Award" winners, who each received a $6,000 prize.

The following lists the First Award winners for each of the 22 categories, from which the Top Awards were chosen:

Animal Sciences, sponsored by Society for Science

- **Matthew Lo**, 16, of Berwyn, Pennsylvania

Behavioral and Social Sciences, sponsored by Society for Science

- **Ameya Kharade**, 16, of Nashua, New Hampshire
- **Jesse Rumball-Smith**, 17, of Wellington, New Zealand

Biochemistry, sponsored by Regeneron

- **Pragathi Kasani-Akula**, 17, of Cumming, Georgia

Biomedical and Health Sciences, sponsored by Regeneron

- **Edward Kang**, 17, of Upper Saddle River, New Jersey
- **Uma Sthanu**, 17, of Austin, Texas

Biomedical Engineering, sponsored by Regeneron

- **Chanyoung Kim**, 16, of Flower Mound, Texas
- **Eeshaan Prashanth**, 17, of Flower Mound, Texas
- **Samuel Skotnikov**, 17, of Highland Village, Texas
- **Ethan Yan**, 15, of Groton, Massachusetts

Cellular and Molecular Biology, sponsored by Regeneron

- **Lilly Horowitz**, 17, of Jericho, New York

Chemistry, sponsored by Arc Institute

- **Adam Kovalčík**, 19, of Dulovce, Slovakia

Computational Biology and Bioinformatics, sponsored by Regeneron

- **Arnav Sharma**, 15, of Troy, Michigan
- **Samarth Dunakhe**, 15, of Chandler, Arizona
- **Aryav Das**, 16, of Noblesville, Indiana
- **Qianheng Xu**, 16, of Millburn, New Jersey

Earth and Environmental Sciences, sponsored by Society for Science

- **Lakshmi Agrawal**, 17, of Bellevue, Washington
- **Miriam Haddad**, 18, of Saginaw, Michigan

Embedded Systems, sponsored by HP

- **Maya Trutschl**, 17, of Shreveport, Louisiana

Energy: Sustainable Materials and Design, sponsored by Siemens Energy

- **Oliver Wang**, 17, of Falls Church, Virginia

Engineering Technology: Statics and Dynamics, sponsored by Howmet Aerospace Foundation

- **Benjamin Davis**, 16, of Wrentham, Massachusetts

Environmental Engineering, sponsored by Jacobs

- **Bennett Huang**, 16, of Great Falls, Virginia
- **Jason Pan**, 16, of Great Falls, Virginia
- **XinYan Chen**, 17, of San Gabriel, California

Materials Science, sponsored by Howmet Aerospace Foundation

- **Siyaa Poddar**, 16, of Chandler, Arizona

Mathematics, sponsored by Akamai Foundation

- **Cory Seelenfreund**, 17, of New Rochelle, New York

Microbiology, sponsored by Schattner Foundation

- **Abigail Qi**, 16, of Baton Rouge, Louisiana

Physics and Astronomy, sponsored by Jane Street

- **Aiden Kwon**, 17, of Rolling Hills Estates, California
- **Aleksandra Petkova**, 18, of Sofia, Bulgaria

Plant Sciences, sponsored by Society for Science

- **Aarushi Pandey**, 17, of Conroe, Texas

Robotics and Intelligent Machines, sponsored by Liquid AI

- **Chinmayi Goyal**, 17, of Yorktown, New York
- **Timothy Wilson**, 18, of Pennant Hills, Australia

Systems Software, sponsored by Microsoft

- **Ram Sivaraman**, 17, of Acton, Massachusetts

Technology Enhances the Arts, sponsored by Midjourney

- **Punnawit Ponnirun**, 17, of Chiang Mai, Thailand
- **Sataporn Thanapanyakul**, 17, of Chiang Mai, Thailand
- **Siwakorn Suwannahong**, 17, of Chiang Mai, Thailand

Translational Medical Science, sponsored by Regeneron

- **Audrey Zheng**, 16, of Wexford, Pennsylvania
- **Vrishank Chandrasekhar**, 18, of San Jose, California

The full list of all award-winning ISEF 2025 finalists is available **here**.

View all the finalists' research **here**.

About the Regeneron International Science and Engineering Fair
The Regeneron International Science and Engineering Fair (Regeneron ISEF), a program of Society for Science celebrating 75 years, is the world's largest global science competition for high school students. Through a global network of local, regional and national science fairs, millions of students are encouraged to explore their passion for scientific inquiry. Each spring, a group of these students is selected as finalists and offered the opportunity to compete for approximately U.S. $9 million in awards and scholarships.

In 2019, Regeneron became the title sponsor of ISEF to help reward and celebrate the best and brightest young minds globally and encourage them to pursue careers in STEM to positively impact the world. Regeneron ISEF is supported by a community of additional sponsors, Adam R. Scripps Foundation, Akamai Foundation, Aramco, Arc Institute, Gordon and Betty Moore Foundation, Howmet Aerospace Foundation, HP, Insaco, Intel, Jacobs, Jane Street, Liquid AI, Microsoft, Midjourney, Schattner Foundation, Siemens Energy, The Ohio State University, Battelle, Caltech, Cesco, Cisco, COSI, GoFundMe, Jeni's Splendid Ice Creams, JobsOhio, Johnson Energy Holdings. Many are entrepreneurs across a wide range of industries. Learn more at https://www.societyforscience.org/isef/.

About Society for Science
Society for Science is a champion for science, dedicated to promoting the understanding and appreciation of science and the vital role it plays in human advancement. Established in 1921, Society for Science is best known for its award-winning journalism through Science News and Science News Explores, its world-class science research competitions for students, including the Regeneron Science Talent Search, the Regeneron International Science and Engineering Fair and the Thermo Fisher Scientific Junior Innovators Challenge, and its STEM Outreach programming that seeks to ensure that all students have an opportunity to pursue a career in STEM. A 501(c)(3) membership organization, Society for Science is committed to inform,

educate and inspire. Learn more at www.societyforscience.org and follow us on Facebook, Twitter, Instagram and Snapchat (Society4Science).

About Regeneron
Regeneron (NASDAQ: REGN) is a leading biotechnology company that invents, develops and commercializes life-transforming medicines for people with serious diseases. Founded and led by physician-scientists, our unique ability to repeatedly and consistently translate science into medicine has led to numerous approved treatments and product candidates in development, most of which were homegrown in our laboratories. Our medicines and pipeline are designed to help patients with eye diseases, allergic and inflammatory diseases, cancer, cardiovascular and metabolic diseases, hematologic conditions, infectious diseases and rare diseases.

Regeneron believes that operating as a good corporate citizen is crucial to delivering on our mission. We approach corporate responsibility with three goals in mind: to improve the lives of people with serious disease, to foster a culture of integrity and excellence and to build sustainable communities. Regeneron is proud to be included on the Dow Jones Sustainability World Index and the Civic 50 list of the most "community-minded" companies in the U.S. Throughout the year, Regeneron empowers and supports employees to give back through our volunteering, pro-bono and matching gift programs. Our most significant philanthropic commitments are in the area of science education, including the Regeneron Science Talent Search and the Regeneron International Science and Engineering Fair (ISEF).

For more information, please visit www.Regeneron.com or follow Regeneron on LinkedIn, Instagram, Facebook or X.

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