REGENERON

Students Win More Than $1.8 Million at 2023 Regeneron Science Talent Search for Remarkable Scientific Research on RNA Molecule Structure, Media Bias, and Diagnostics for Pediatric Heart Disease

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$250,000 top award goes to Neel Moudgal in the nation's oldest and most prestigious science and math competition for high school seniors

TARRYTOWN, N.Y. and WASHINGTON, D.C., March 14, 2023 (GLOBE NEWSWIRE) -- Regeneron Pharmaceuticals, Inc. (NASDAQ: REGN) and Society for Science (the Society) announced that Neel Moudgal, 17, of Saline, Mich., won the **top $250,000 award** in the 2023 Regeneron Science Talent Search, the nation's oldest and most prestigious science and math competition for high school seniors.

The competition, now in its 82nd year, celebrates and rewards young scientists focused on a wide range of scientific topics. This year, those topics include everything from cancer research to climate change to the space race and more. Forty finalists, including Neel, were honored during a livestreamed award ceremony emceed by American Broadcaster Soledad O'Brien. More than $1.8 million was awarded to the finalists, who were evaluated based on their projects' scientific rigor, their exceptional problem-solving abilities and their potential to become leaders in STEM.

Neel Moudgal won first place and **$250,000** for creating a computer model that can rapidly and reliably predict the structure of RNA molecules using only easily accessible data. He believes this will make it easier to diagnose and treat certain diseases.

Second place and **$175,000** went to **Emily Ocasio**, 18, of Fairfax, Va., who used artificial intelligence to determine whether humanizing language was used by the *Boston Globe* in the years spanning 1976-84 when describing homicide victims. She found that Black victims received less humanizing coverage than white victims.

Third place and **$150,000** went to **Ellen Xu**, 17, of San Diego, Calif., for developing an algorithm that uses a smartphone photo of the patient to aid in the diagnosis of Kawasaki disease, the leading cause of acquired heart disease in children between one and five.

"Congratulations to the winners of the Regeneron Science Talent Search 2023," said Maya Ajmera, President and CEO, Society for Science and Executive Publisher, Science News. "These young leaders are the stewards of our future. I am in awe of their creativity and conviction."

The Regeneron Science Talent Search empowers young people who are passionate about innovation and using scientific discovery to contribute to improving our world. By providing a national stage to present new ideas and challenge old ways of thinking, the competition encourages and rewards a culture of idea sharing, critical thinking and continuous improvement. It also serves as a catalyst for discovering sustainable solutions to the world's most pressing challenges. The judging panel considers how these research efforts, innovative thinking and leadership qualities demonstrate the students' potential to become future leaders in critical STEM fields.

"Congratulations to the Regeneron Science Talent Search 2023 winners, and to all our impressive finalists," said George D. Yancopoulos, M.D., Ph.D., co-founder, President and Chief Scientific Officer of Regeneron, and a 1976 Science Talent Search finalist and top winner. "My experiences participating in the Science Talent Search changed my life, helping convince me to devote my life to trying to use science to cure disease. I can only hope this year's students will be similarly inspired to become the next generation of scientists, engineers and innovators that will develop and advance solutions for the world's greatest challenges."

Other top honors from the competition include:

Fourth Place: Max Misterka, 16, of Harrisonburg, Va., received a $100,000 award for studying *q*-calculus, a version of traditional calculus. He generalized it and then proved many things about his new version of calculus, which he refers to as *s*-calculus, that are analogous to results in *q*-calculus. He hopes that it will prove useful in quantum physics.

Fifth Place: Linden James, 17, of Durham, N.C., received a $90,000 award for investigating the possible benefit of using a thyroid hormone (T3) to treat traumatic brain injuries in humans. They found that caterpillars with such injuries performed better on agility tests after being treated with the caterpillar version of T3.

Sixth Place: Ambika Grover, 17, of Greenwich, Conn., received an $80,000 award for developing an injectable layered microbubble designed to target and break up blood clots and prevent them from reforming. She believes this can be used to restore the flow of oxygen-carrying blood to the brains of ischemic stroke victims.

Seventh Place: Ethan Zhou, 18, of Mclean, Va., received a $70,000 award for studying the theory behind a machine learning model in which the learning program receives training data gradually. His math research could be especially useful for algorithms that predict and learn from events that are revealed over time, like the weather.

Eighth Place: Samantha Milewicz, 17, of Armonk, N.Y., received a $60,000 award for examining the immune reaction to a traumatic brain injury and found that it can trigger the body to overproduce an enzyme that degrades the protein that holds the cells of the blood-brain barrier together, causing it to leak.

Ninth Place: Siddhu Pachipala, 18, of The Woodlands, Texas, received a $50,000 award for using machine learning to analyze journal entries as a

way to gauge patients' suicide risk. His work suggests that the semantics in an individual's writing could be correlated with their psychological health and risk of suicide.

Tenth Place: [Thaddaeus Kiker](#), 18, of Fullerton, Calif., received a $40,000 award for developing a machine-learning approach to predict the presence and properties of quasi-periodic oscillations in black holes. He then packaged his software into an "open source" library so other scientists can build on his methods.

Siddhu Pachipala was also named the **Seaborg Award winner** and given the opportunity to speak on behalf of the Regeneron Science Talent Search Class of 2023. The 40 finalists chose Siddhu as the student who most exemplifies their class and the extraordinary attributes of nuclear chemist Glenn T. Seaborg, who won the Nobel Prize for Chemistry in 1951 and served on the Society's Board of Trustees for 30 years.

All other finalists received $25,000. All 40 finalists will join the ranks of other Science Talent Search alumni, many of whom have gone on to have world-changing careers in STEM fields, and some of whom have earned the most esteemed honors in science and math, including the Nobel Prize, National Medal of Science and MacArthur Foundation Fellowships. In total, Regeneron awarded $3.1 million in prizes this year, including $2,000 to each of the top scholars and their schools.

About the Regeneron Science Talent Search
The Regeneron Science Talent Search, a program of Society for Science since 1942, is the nation's oldest and most prestigious science and math competition for high school seniors. Each year, nearly 2,000 student entrants submit original research in critically important scientific fields of study and are judged by leading experts in their fields. Unique among high school competitions in the U.S. and around the world, the Regeneron Science Talent Search focuses on identifying, inspiring and engaging the nation's most promising young scientists who are creating the ideas that could solve society's most urgent challenges.

In 2017, [Regeneron](#) became the third sponsor of the Science Talent Search to help reward and celebrate the best and brightest young minds and encourage them to pursue careers in STEM as a way to positively impact the world. Through its 10-year, $100 million commitment, Regeneron nearly doubled the overall award distribution to $3.1 million annually, increasing the top award to $250,000 and doubling the awards for the top 300 scholars to $2,000 and their schools to $2,000 for each enrolled scholar to inspire more young people to engage in science.

Learn more at https://www.societyforscience.org/regeneron-sts/.
Media Kit: https://www.societyforscience.org/regeneron-science-talent-search-2023-media-kit/

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 outreach and equity 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 life-transforming medicines for people with serious diseases. Founded and led for 35 years by physician-scientists, our unique ability to repeatedly and consistently translate science into medicine has led to nine FDA-approved treatments and numerous product candidates in development, nearly all of which were homegrown in our laboratories. Our two most senior leaders, Leonard Schleifer, M.D., Ph.D., and George Yancopoulos, M.D., Ph.D., credit their experiences at the Science Talent Search for putting them on a path to start the company and ultimately, along with their team, invent important, life-changing medicines. Regeneron's medicines and pipeline are designed to help people with eye diseases, allergic and inflammatory diseases, cancer, cardiovascular and metabolic diseases, pain, 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 [Regeneron International Science and Engineering Fair](#).

For additional information about the company, please visit www.regeneron.com or follow @Regeneron on Twitter.

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