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## MASSACHUSETTS TEENS AWARDED \$60,000 IN SCHOLARSHIPS FOR ACHIEVEMENTS IN SCIENTIFIC RESEARCH

Yifan Ding to be Awarded \$50,000 Laureate Scholarship Valencia Zhang to be Awarded \$10,000 Scholarship

Boston – The Davidson Fellows Scholarship Program has announced the 2024 scholarship winners. Among the honorees are Yifan Ding, 16, of West Roxbury and Valencia Zhang, 16, of Andover. Only 20 students across the country are recognized as 2024 scholarship winners.

"It is a tremendous honor to be recognized as a Davidson Fellows Laureate," said Yifan Ding. "As a classically trained young musician aspiring to become a biomedicine innovator, I am deeply encouraged by this award, which acknowledges and validates my dedication and determination in pursuing my passion for science and its societal benefits."

For his project, Ding developed a novel technique using an antibiotic as a safety switch for gene therapy, designed to control the "on" and "off" states of gene therapy drugs. Gene therapy, often seen as a "one-and-done" treatment with the potential to cure genetic diseases, carries risks due to its long-lasting effects. His invention aims to mitigate these risks by providing a way to regulate gene therapy treatments, particularly in fine-tuning CRISPR gene-editing therapies, allowing for greater control and safety in these irreversible procedures.

"Being named a Davidson Fellow is a dream come true," said Valencia Zhang. "It not only recognizes my passion for astronomy, but it also offers me the opportunity to interact with a community of individuals equally driven to make a difference in the world."

For her project, Zhang discovered the first-ever triaxial pulsator, a star that pulsates about three different, perpendicular axes. While most stars' pulsations can only be observed through their frequency, tidally tilted pulsators, a novel class of stars in binary systems, allow for the observation of pulsations from all angles. This groundbreaking discovery challenges existing definitions in the field of stellar pulsations and provides new insights into the types of axes stars can pulsate about.

"This year's class of Davidson Fellows Scholarship recipients exemplifies the power of innovation and perseverance," said Bob Davidson, founder of the Davidson Institute. "Our Fellows continue to push the boundaries of their educational and research pursuits, striving to solve some of the world's most challenging problems by leveraging creative, outside-the-box thinking and cutting-edge technology to expand their networks, access new sources of information, and deliver an impressive array of diverse projects."

The 2024 Davidson Fellows will be honored during a reception at the Smithsonian National Museum of the American Indian in Washington, D.C. and with a virtual project presentation ceremony in September 2024.

The Davidson Fellows Scholarship program offers \$50,000, \$25,000 and \$10,000 college scholarships to students 18 or younger, who have completed significant projects that have the potential to benefit society in the fields of science, technology, engineering, mathematics, literature and music. The Davidson Fellows Scholarship has provided more than \$9.9 million in scholarship funds to 448 students since its inception in 2001, and has been named one of the most prestigious undergraduate scholarships by <u>U.S. News & World Report</u>. It is a program of the Davidson Institute, a national nonprofit organization headquartered in Reno, Nev. that supports profoundly gifted youth.

## **About the Davidson Institute**

Founded by Bob Davidson in 1999, the Davidson Institute recognizes, nurtures and supports profoundly intelligent young people, and provides opportunities for them to develop their talents to make a positive difference. The Institute offers support through a number of programs and services, including the Davidson Fellows Scholarship and the <u>Davidson Academy of Nevada</u>. For more information about the 2024 Davidson Fellows, please visit: <u>DavidsonFellows.org</u>.

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High-resolution photos are available at <u>DavidsonFellows.org</u>