

BAY AREA TEENS RECEIVE NATIONAL SCHOLARSHIP FOR UNMATCHED ACHIEVEMENTS

Cynthia Chen to be awarded \$50,000 as a 2019 Davidson Fellow Scholarship Winner, Natasha Maniar to be awarded \$50,000 as a 2019 Davidson Fellow Scholarship Winner, Aryia Dattamajumdar to be awarded \$10,000 as a 2019 Davidson Fellow Scholarship Winner, and Anna Quinlan to be awarded \$10,000 as a 2019 Davidson Fellow Scholarship Winner

San Jose, Calif. – The Davidson Institute for Talent Development has announced the 2019 Davidson Fellows Scholarship winners. Among the honorees are **Cynthia Chen**, 17, of Cupertino; **Natasha Maniar**, 17, and **Aryia Dattamajumdar**, 17, of Sunnyvale; and **Anna Quinlan**, 18, of Atherton. Only 20 students across the country are recognized as scholarship winners each year.

"I am truly honored and humbled to be named a 2019 Davidson Fellow," said Chen, a rising senior at The Harker School in San Jose. "Receiving this award means a lot to me, and I am extremely grateful to the Davidson Institute for their support of my academic and scientific pursuits."

Chen's research, *Decoding Neural Networks: Novel Computational Methods to Discover Anti-Tumor B Cell Receptor Binding Motifs*, is an important first step towards a better understanding of deep learning models that are used in cancer research. The computational pipeline she developed not only provides a novel framework for decoding sequence-based deep neural networks but also identifies the genetic signatures of multiple types of cancers. Chen's work could help reduce the time and cost of developing more effective and targeted cancer treatments for patients.

"I'm extremely grateful and honored to be named a Davidson Fellow," said Maniar who will be attending Massachusetts Institute of Technology in the fall. "I've always looked up to previous Davidson scholarship winner, and it's immensely gratifying to be recognized for my work. I'm excited to join the Davidson Fellows community among many inspiring people."

Maniar developed a computational approach to identify sources of atrial fibrillation (AF). Despite affecting more than 33 million people worldwide, diagnostic imaging of electrical conduction through the heart remains relatively subjective and continues to rely heavily on visual interpretation by experts. Her code identified the AF sources inside the heart with greater accuracy than trained experts.

Dattamajumdar, a rising senior at Fremont High School, was inspired by the dangers of fighting fires to develop her project, *An early warning AI-powered portable system to reduce workload and inspect environmental damage after natural disasters*. The multi-spectral sensing and inspection drone with automated target identification, decision-making and robotic retrieval can be deployed and operate in dangerous environments to make search and rescue operations safer and more accessible.

Quinlan's project, *A Low Cost, Closed Loop Insulin Pump for the Better Management of Types 1 and 2 Diabetes Mellitus,* is built with a low-cost 3D-printed components, allowing for lower production costs and greater accessibility for the more than 415 million people who live with diabetes worldwide. Quinlan will be attending Stanford in the fall where she plans to continue developing software and devices to improve diabetes care.

"We are proud to announce the 2019 Davidson Fellows Scholarship recipients and applaud them for their hard work and achievement in their fields of study," said Bob Davidson, founder of the Davidson Institute. "By being awarded this recognition, these students have shown immense skill and work ethic, and they should be commended as they continue their educational and research journeys while continuing to work to solve some of the world's most vexing problems."

The 2019 Davidson Fellows will be honored at a reception in Washington, D.C., on Friday, September 27, 2019.

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 \$7.5 million in scholarship funds to more than 300 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 for Talent Development, 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 for Talent Development 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 2019 Davidson Fellows, please visit <u>www.DavidsonGifted.org/Fellows-Scholarship</u>.

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High-resolution photos are available at <u>www.DavidsonGifted.org/Fellows-Scholarship.</u>