*For Immediate Release* August 16, 2018



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## SAN DIEGO TEEN AWARDED \$25,000 FOR RESEARCHING ANTIBIOTIC RESISTANT BACTERIA Maggie Chen to be Named a 2018 Davidson Fellow

San Diego, Calif. – The Davidson Institute for Talent Development has announced the 2018 Davidson Fellows. Among the honorees is 18-year-old Maggie Chen of San Diego. Chen won a \$25,000 Davidson Fellows Scholarship for her project, *Cell Membrane-Coated Nanodevice for Anti-Virulence Therapy Against Antibiotic Resistant Bacteria.* She is one of only 20 students across the country to receive this honor.

"I am incredibly excited to be named a Davidson Fellow," said Chen. "I'm very grateful for this recognition. I feel honored and humbled to be surrounded by such talented peers and hope to use this opportunity to continue my research and give back to communities."

Antibiotic resistance is a huge medical problem, and paradoxical in that the more antibiotics synthesized to eliminate these bacteria, the more antibiotic resistant bacteria evolve. While working in a hospital's skilled nursing facility, Chen cared for patients who were recovering from surgeries while also battling debilitating bacterial infections. To combat this problem, she was inspired to build a medical device to eliminate these bacteria indirectly, while allowing for patient immune system recovery and rehabilitation. This nanodevice integrates bacterial toxin absorption through cell membrane coated nanotechnology with 3D bioprinting for patient personalization. Through detoxification, this nanodevice allows for immune system recovery and subsequent elimination of the bacteria – without inducing antibiotic resistance.

Chen has been working at the University of California, San Diego to further her research. Beyond the lab, Chen enjoys playing music, writing, and reading. She is an ardent musician, playing both clarinet and piano.

"We are thrilled to recognize the 2018 Davidson Fellows not only for their incredible projects, but also for the journey they forged to reach this point," said Bob Davidson, founder of the Davidson Institute. "Every year I am amazed by the depth of the Fellows' accomplishments. Through encouragement and recognition, the Davidson Institute for Talent Development anticipates that gifted students like these will be among the pioneers who will solve the world's most vexing problems."

The 2018 Davidson Fellows will be honored at a reception in Washington, D.C., on Friday, September 28.

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 2018 Davidson Fellows, please visit www.DavidsonGifted.org/Fellows-Scholarship.