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BLOOMFIELD HILLS TEEN AWARDED \$25,000 FOR DEVELOPING METHOD TO CREATE UNIVERSAL INFLUENZA VACCINE

Madeleine Yang to be Named a 2019 Davidson Fellow Scholarship Winner

Bloomfield Hills, Mich. – The Davidson Institute for Talent Development has announced the 2019 Davidson Fellows Scholarship winners. Among the honorees is 17-year-old Madeleine Yang of Bloomfield Hills. Yang won a \$25,000 scholarship for her project, *Enabling M2-incorporated Influenza Virus-like Particles (VLPs) as a Potential Universal Influenza Vaccine*. She is one of only 20 students across the country to be recognized as a scholarship winner.

"I am deeply honored and humbled to be named a 2019 Davidson Fellow and grateful to the Davidson Institute for recognizing the impact of my work," said Yang. "Science competitions have been one of the most defining experiences of my life. This recognition not only encourages me to aim higher but hopefully also inspires other young girls to participate in scientific research."

Yang's universal vaccine method has the potential to solve the flu vaccine's low efficacy problem. One reason for the influenza vaccine's inefficacy is the traditional egg-based platform, which has a six to nine month production time. During that time, viral mutations lead to vaccine inefficiency, and the need for hundreds of millions of chicken eggs make the method unequipped to handle pandemics. Yang's approach incorporates the highly conserved influenza matrix protein M2 into engineered virus-like particles (VLPs), eliminating the need for chicken eggs, enabling a shorter timeframe for development, decreasing production costs, and allowing for a larger production scale.

Yang will be attending Harvard University in the fall where she hopes to further her knowledge of the drug design and delivery field to advance fundamental understanding of biological systems and develop new materials and technologies to translate breakthrough research into real-world solutions to help solve global health problems.

"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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