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Contact: Megan Bedera,  
Amplify Relations  
775-997-5690  
[megan@amplifyrelations.com](mailto:megan@amplifyrelations.com)

**TULSA TEEN AWARDED \$25,000 FOR DEVELOPING METHOD TO IMPROVE EFFICIENCY OF LED LIGHTING THAT MAY FURTHER REDUCE COSTS AND DECREASE CARBON EMISSIONS**  
**William Wang to be Named a 2019 Davidson Fellow Scholarship Winner**

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Tulsa, Okla. – The Davidson Institute for Talent Development has announced the 2019 Davidson Fellows Scholarship winners. Among the honorees is 17-year-old William Wang of Tulsa. Wang won a \$25,000 scholarship for his project, *Red photoluminescent europium-doped yttrium oxide nanostructures as LED photon down-converters*. He is one of only 20 students across the country to be recognized as a scholarship winner.

“I feel incredibly honored and excited to be named as a Davidson Fellow,” said Wang. “This has also greatly encouraged me to continue pursuing scientific research.”

Artificial lighting consumes approximately 19% of the world’s total energy and is responsible for around 10% of all carbon emissions. In recent years, solid-state lighting based on LEDs has become popular due to its energy efficiency, long life, and environmental friendliness. However, LED lighting is still far away from its theoretical efficiency limit. Thus, using cost-effective approaches, Wang created various nanostructures that emit intense red light under ultraviolet excitation, suggesting their use on LEDs to generate high quality, energy-efficient white light. This project contributes to the efforts leading to more energy-efficient lighting, which would help to reduce electricity costs, decrease carbon emissions and help to combat climate change.

Wang will attend Stanford in the fall to study materials science and engineering or bioengineering. In the future, Wang would like to extend the experience and skills he developed in this project and apply his research to emerging technologies and develop new nanomaterials and nanodevices for optical, electronic, energy, catalytic, and medical use with the ultimate goal of benefitting society.

Outside of academics, Wang was a member of the Student Advisory Council for the Oklahoma State Department of Education and vice president and co-director of the Chinese American Association of Tulsa. His hobbies include playing the piano, traveling, hiking, running, and playing basketball.

“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.S. News & World Report\*](#). 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 [Davidson Academy of Nevada](#). For more information about the 2019 Davidson Fellows, please visit [www.DavidsonGifted.org/Fellows-Scholarship](http://www.DavidsonGifted.org/Fellows-Scholarship).

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*High-resolution photos are available at [www.DavidsonGifted.org/Fellows-Scholarship](http://www.DavidsonGifted.org/Fellows-Scholarship).*