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High-res photos available

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SMU STUDENT RESEARCHER EARNS PRESTIGIOUS GOLDWATER SCHOLARSHIP

DALLAS (SMU) – Carefully nurturing the cancer cells she uses in SMU biology professor Pia Vogel's research lab is routine for SMU junior Gabrielle Gard, who has been working in sophisticated research labs since she was a junior in high school. Her dogged pursuit of hands-on research is just one of the reasons she has received a 2021-22 Goldwater Scholarship, one of the most prestigious national science awards presented to undergraduate students.

The scholarship, which honors former Sen. Barry Goldwater, encourages outstanding students to pursue research careers in the natural sciences, engineering and mathematics and provides up to \$7,500 toward tuition, fees, books and room and board. Gabrielle, a biochemistry major with minors in Spanish and mathematics, is well on her way, already assisting with sophisticated cancer research.

Since her first year at SMU, Gabrielle has worked in the lab of Pia Vogel, founding director of SMU's Center for Drug Discovery, Design and Delivery. Vogel's research includes finding and testing inhibitors that re-sensitize drug-resistant cancer cells to chemotherapeutics. Her research has shown promising results with multi-drug-resistant breast cancer cells.

Gabrielle is conducting her own research under Vogel's direction, testing inhibitors with a less drug-resistant line of breast cancer cells.

"Gabrielle is an amazing asset to my lab," says Vogel. "She knows how to troubleshoot and how to drive projects forward."

The daughter of two Parkland Hospital pharmacists and researchers, Gabrielle has been interested in science since she was a little girl, visiting natural history and science museums and attending science summer camps. As a high school junior at Ursuline Academy in Dallas, she was selected to participate in UT Southwestern Medical Center's Summer Research Opportunities (STARS) program, an eight-week internship. Gabrielle learned a variety of research techniques in the laboratory of Rashmin Savani, chief of

Neonatal-Perinatal Medicine at UT Southwestern, and joined the research team at an international conference in Cleveland, Ohio.

"Instead of reading about discoveries in a textbook, I was working with researchers whose work impacted real people," she says.

Because of Gabrielle's interests and accomplishments in science, SMU awarded her the Provost Scholarship, the SMU Discovery Scholarship, the Dedman College Scholarship and the BRITE Scholarship.

Gabrielle says the invitation to become a Dedman College Scholar was key to her decision to attend SMU. The program provides faculty mentoring, an active community of likeminded peers and unique learning opportunities.

"Knowing that I would come to SMU with a cohort of students from a variety of disciplines that would challenge me academically and outside of the classroom was a huge pull for me," she says.

A member of SMU's University Honors Program, Gabrielle's research in Dr. Vogel's lab is supported by an SMU Engaged Learning fellowship. She was named a top ten sophomore by the national college honor society, Mortar Board, honored as the top chemistry and organic chemistry student by SMU's Chemistry Department and was awarded the University Achievement Award as a member of the Robert S. Hyer Society.

She's also a teaching assistant for the general chemistry laboratory course and president of the Mustang Emergency Medical Services, where she coordinates an EMT certification course for students and is working toward creating an official EMS agency on SMU's campus. A third-degree black belt in Taekwondo, she also volunteers at a summer camp for children with burn injuries.

As Gabrielle wraps up a most unusual junior year, continuing her studies despite the challenges of COVID-19, she says connection with faculty has been one of the most meaningful parts of her experience at SMU.

"My professors have been so nurturing and willing to challenge me," she says. "I've had fantastic mentorship from Dr. Vogel and everyone in the lab, and I also cannot speak highly enough of all the professors who have mentored me during my time at SMU."

After graduation from SMU, Gabrielle intends to pursue advanced degrees enabling her to practice medicine and conduct research in an academic setting. Inspired by her parents' work and Dr. Vogel's research, she is interested in furthering her studies of drug-resistant cancers.

About SMU

SMU (Southern Methodist University) is the nationally ranked global research university in the dynamic city of Dallas. SMU's alumni, faculty and over 12,000 students in eight degree-granting schools demonstrate an entrepreneurial spirit as they lead change in their professions, communities and the world.