



Two students earn prestigious Barry Goldwater Scholarships

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Two rising seniors at Case Western Reserve University—William “Sam” Nutt, a biochemistry and Chinese major, and Christine Smothers, a nursing student—are 2019 recipients of the Barry Goldwater Scholarship.

The Barry Goldwater Scholarship and Excellence in Education Foundation, established by Congress in 1986 to serve as a living memorial for the work of Sen. Barry Goldwater, is for sophomores and juniors with strong academic records who have potential to succeed in careers in mathematics, engineering or the natural sciences. The scholarship, for up to \$7,500, can be used for tuition, fees, books, and room and board.

Each year, Case Western Reserve University can nominate up to four students for the award; this year, 496 individuals were selected from universities across the country. Nearly all intend to pursue PhDs in their respective fields. [Learn more about the application process.](https://case.edu/ugstudies/students/honors-fellowships-and-awards/fellowships-and-scholarships/national-fellowships-and-scholarships/barry-goldwater-scholarship)

This year marks the first time since 2011 that two Case Western Reserve students received the award, which is known as the “preeminent undergraduate award of its type in these fields.”

(<https://case.edu/ugstudies/students/honors-fellowships-and-awards/fellowships-and-scholarships/national-fellowships-and-scholarships/barry-goldwater-scholarship>)

William “Sam” Nutt

Sam Nutt is undeterred by a challenge. When presented with an opportunity to conduct biochemical research on infectious disease—specifically, HIV—at Case Western Reserve, he was ready to take it on.

He is driven by the fact that the virus has no cure.

Prior to this work, Nutt worked in a biochemistry lab purifying proteins and finding their structure.

Nutt enjoys the ability to look at things we see on a macro level—like cancer and infectious diseases—and break them down to view them from the molecular level.

“I think it’s really cool how it can be that simple, but it’s also so complicated,” he said.

In addition to work in Case Western Reserve labs, Nutt conducted research at Argonne National Laboratory in Illinois for three summers.

After completing his degree at Case Western Reserve, Nutt plans to go on to a PhD program in molecular biology, though he has yet to decide what he would like to study. He’s considering routes that would allow him to further work with infectious diseases, or research cancer, immunology, or another similar topic.

Winning the Barry Goldwater Scholarship showed Nutt that whichever direction his research takes him, he’s heading the right way.

“Being recognized felt really reassuring and reaffirming that what I’m doing is something that I’m good at and want to do—I have potential,” he said.

He said he’s grateful for all of the help he received in earning the scholarship, including his current and past mentors and deans.

“It was definitely not an individual thing,” he said.

Outside of science, Nutt seeks challenges in other ways. In high school, he was drawn to studying Chinese because the characters and pronunciation differed so greatly from English. He decided to continue studying the language as a secondary major at Case Western Reserve, and studied abroad in China for his sophomore year.

He also decided to join the CWRU Crew team because it presented yet another challenge, as he had never rowed before. Nutt, now the president of the team, said the sport has become his “love.”

Christine Smothers

As a nursing major, Christine Smothers doesn’t fit the traditional profile of a Barry Goldwater Scholarship winner. In the award’s more than 30-year history, it is believed that she is just the second student in the nursing field to ever be selected for the scholarship.

But Smothers is a strong believer in the power of having nurses represented in biomedical research, and her research pursuits complement her classroom experiences.

“I’ve always been really excited about how the nursing perspective can inform—and even accelerate—biomedical research, so when I saw this opportunity, I realized this could be a way to strengthen the community of nursing researchers,” she said.

Smothers said she has been fortunate to pursue nursing at Case Western Reserve, where she could start rotating in the hospital in her first year. Now, she has more than 800 hours of experience in caring for patients.



“Being able to spend time regularly in both the hospital and the lab has been an incredible opportunity to learn what makes biomedical research effective. The faculty have been so supportive in helping me integrate my firsthand clinical experience with my research,” she said.

Since arriving at Case Western Reserve, Smothers has been involved in research in different disciplines, including biochemistry, biomedical engineering and molecular biology.

Now, she’s working at the O’Connell Lab in the School of Nursing to identify biomarkers for stroke, with the hope of eventually contributing to the development of blood tests for disease.

Additionally, she’s served as director and chair of the health policy and advocacy committee for the National Student Nurses’ Association, an organization with 60,000 members.

In her role with the association, Smothers got to know nursing student leaders across the country by founding the Health Policy Education Task Force, which recruited nursing students to engage in discussion related to health policy concerns.

Smothers was drawn to nursing because of the opportunity to make a difference and have direct interactions with patients. And her research is an extension of that. She recognizes that, through research, she can make a difference for many patients at once.

In the future, Smothers would like to earn a PhD and lead biomedical research as a PI.

For now, she’s grateful for the recognition from the scholarship committee.

“It’s a big sign that I’m on the right path,” she said.



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