Three UI undergraduates named 2019 Goldwater Scholars

On April 26, 2019, University of Iowa undergraduates Hannah Gulick, Russell Martin, and Guowei Qi got some great news. After making it through an extra four weeks of anticipation, each learned that they had been named 2019 Goldwater Scholars.

The Barry M. Goldwater Scholarship - the premier undergraduate award of its kind - was established by Congress in 1986 in honor of Senator Barry M. Goldwater, to challenge and support outstanding young scholar researchers committed to conducting basic science research in the fields of science, technology, mathematics, and engineering. Since 1989, 57 undergraduates from the University of Iowa have been named Goldwater Scholars.

Hannah Gulick of Spirit Lake, IA, is member of the University of Iowa Honors Program, a licensed ham radio operator, a graduate of rocket school, and an editor of Fools Magazine. Gulick is currently studying astronomy, physics, and creative writing while conducting research on HaloSat, a NASA funded CubeSat that is searching for missing matter in the Milky Way’s Galactic Halo with Dr. Philip Kaaret. Gulick has been a part of several other projects connected to her home department where she was able to learn from Drs. Robert Mutel, Cornelia Lang, and David Miles.

After graduation, Gulick plans to pursue a Ph.D. in astrophysics and her goal of conducting research in observational astronomy and space instrumentation for NASA.

Russell Martin of West Branch, IA, is a member of the University of Iowa Honors Program, the ICRU Ambassadors, the UI Robotics Team, and the College of Engineering where he studies biomechanics and biomaterials. During his undergraduate career Martin has contributed to the work of Drs. Michael Schnieders, Robert Cornell, Alexander Bassuk, and most recently, Laura Frey Law on the investigation of the relationship between electromyography magnitude and joint angle during voluntary contractions.

As he looks ahead, Martin is eager to begin his doctoral work in biomedical engineering and looks forward to building his career as a professor and primary investigator with a research focus in biomechanics and rehabilitation engineering.

The Goldwater Foundation also recognized UI sophomore Guowei Qi of West Des Moines, IA. Qi is pursuing degrees in biochemistry, mathematics, and computer science and he conducts research with Dr. Michael Schnieders, a biomedical engineer who was a 1997 Goldwater Scholar from the University of Iowa. Qi will be continuing his work with Schnieders on protein side optimization in his third year of undergraduate study. Qi is a member of the University of Iowa Honors Program, the Presidential Scholar community, UI Student Government, and the UI Environmental Coalition. He recently represented his fellow undergraduate students on the 2018 CLAS Dean Search Committee and is an ICRU Ambassador.
Each of the university’s institutional nominees worked closely with UI Honors Program director of scholar development, Kelly Thornburg, the University of Iowa’s Undergraduate Fellowships Committee, and an invaluable community of faculty and research mentors during the development of their application materials. Gulick, Martin, and Qi were also supported by 2018 scholar Ojas Pradhan of West Des Moines, IA.

Thornburg offered some insight into the process, what makes a strong applicant and why she thinks this year’s nominees were so successful.

“The best candidates have a problem or question they cannot stop thinking about. The application is an invitation to consider what is behind that obsession and to ask themselves how they might be able to channel it now and in the future. Our nominees took the opportunity to represent their university and departments very seriously, so none of us were surprised to find out that they were recognized by the Goldwater program.”

Gulick, Martin, and Qi came to the process with more than the requisite grades and practical experience. The kinds of challenges they were taking on proved to the nominating committee that science would always be more than a job for them. Bob Kirby, Director of the Iowa Center for Research by Undergraduates has worked with all three scholars and was eager to celebrate their success as well as their potential as champions of accessible, ethical scientific discourse:

“Hannah, Russell, and Guowei are wonderful examples of the outstanding basic science and engineering research done by undergraduates at Iowa. What makes me most proud of them as a group is the public outreach they have been engaged in. They are excellent advocates for research both on and off campus. It will be a pleasure to see where their careers take them.”

To view a full list of the 2019 Goldwater Scholars, visit the Goldwater Scholarship & Excellence in Education Program. Each scholar will receive up to $7500 in funding for tuition, fees, books, room and board.

Undergraduates entering their second or third year of study who are interested in representing the University of Iowa in the 2020 Goldwater competition should contact Kelly Thornburg at kelly-thornburg@uiowa.edu.