

FOUR UI STUDENTS EARN 2016 GOLDWATER HONORS

Undergraduates receive national recognition for their commitment to excellence in academics and research

Three University of Iowa students - **Rae Corrigan**, **Erin Maier** and **Nicholas McCarty** – have been awarded **2016 Goldwater Scholarships**, the premier undergraduate award for students of science, technology, engineering, and mathematics (STEM). **Tom Werner**, the remaining UI nominee, was also recognized with an honorable mention.

The 2016 scholars were selected on the basis of academic merit from a field of 1,150 applicants nominated by 415 colleges and universities nationwide. They will receive up to \$7500 in funding for tuition, fees, books, room and board for their final year of undergraduate study.



RAE CORRIGAN, 2016 SCHOLAR, **BIOMEDICAL ENGINEERING, NORWALK, IOWA**

Rae Corrigan will complete her degree in **biomedical engineering**, as well as a certificate in clinical and translational science in spring 2017. After graduation, she will pursue a PhD in biomedical engineering and continue her research in computational biochemistry with an emphasis on molecular oncology and pharmacogenetics. Rae has conducted BME research since her first year at Iowa, working with **Dr. Michael Schnieders** and **Dr. Stephanie Gilbertson-White** to develop a more complete picture of cancer therapeutics at the molecular level. In addition to her coursework and research, Rae works with the Honors Program, **Women in Science and Engineering**, and the Newman Center.



ERIN MAIER, 2016 SCHOLAR **ASTRONOMY, PHYSICS, HUDSON, OHIO**

Erin is pursuing her B.S. in **Astronomy and Physics** and will continue her studies in Astrophysics at the doctoral level. She plans to conduct research in astronomical instrumentation with an emphasis on spectroscopy. Erin is a UI Presidential Scholar who is actively involved in research on- and off campus. She has worked with **Dr. Robert Mutel** and **Dr. Cornelia Lang** at Iowa, as well as **Dr. Deidre Hunter** at Northern Arizona University and Lowell Observatory. She will learn more about instrumentation this summer at Texas A&M University as part of the **NSF REU program**. As a **Latham Science Engagement Fellow**, she is also working to expand the Physics and Astronomy Department's science outreach opportunities and provide resources and support for minority students interested in STEM fields.



NICHOLAS MCCARTY, 2016 SCHOLAR **BIOCHEMISTRY, MICROBIOLOGY, GENEVA, ILLINOIS**

Nicholas McCarty will graduate with a B.S. in **Biochemistry** and **Microbiology**. He has conducted research on diabetes and heart failure for the last three years with **Professor E. Dale Abel**, MD, PhD. As an **ICRU Research Ambassador** and **Latham Science Engagement Fellow**, he is developing science outreach projects to bolster the connection between scientists and their communities. Nicholas plans to complete his MD/PhD in Biochemistry to eventually pair cardiovascular research at the molecular level with teaching at the university level.



TOM WERNER, 2016 HONORABLE MENTION **COMPUTER SCIENCE, MATH, STATISTICS, CEDAR RAPIDS, IOWA**

Tom Werner studies **computer science**, **mathematics**, and **statistics**. Long-term, Tom wants to contribute to the development of infrastructure and tools needed to optimize machine learning. Tom has conducted research with **Dr. Octav Chipara** on cyberbullying and **Dr. Guadalupe Canahuate** on time series analysis and intends to continue researching machine learning and data science in graduate school. Tom is a UI Presidential Scholar, president of the **University of Iowa's Association for Computing Machinery chapter** and will intern with Google this summer.

As institutional nominees, all four students worked closely with **Kelly Thornburg, UI Honors Program's Director of Scholar Development**, as well as their faculty and staff mentors to clearly articulate the stories behind their commitment to careers in research.

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

"The Goldwater is an important challenge for undergraduate researchers who are hungry to make a contribution to their disciplines and to scientific discovery. As a nominating committee, we look for students who push themselves to develop their knowledge and skill inside and outside of the classroom early on.

Erin, Rae, Niko, and Tom came to the process with more than the requisite grades and practical experience. The kinds of challenges they were taking on – **ICRU ambassadorships, research story competitions, presentations at national conferences**, graduate level courses, **translational science certificate programs, collaborative science communication initiatives, advocacy for research support**, interdisciplinary application design, **STEM outreach inside of their local communities** – proved to us that science would always be more than a job for them.

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 all recognized by the Goldwater program."

- To view a full list of the **2016 Goldwater Scholars**, visit the **Goldwater Scholarship & Excellence in Education Program**
- STEM majors entering their second or third year of study who are interested in representing the University of Iowa in 2017 should contact **Kelly Thornburg** at **319-335-1874** or **kelly-thornburg@uiowa.edu**.

GOLDWATER 2016 BY THE NUMBERS:

- **1,150 applicants nominated by 415 colleges and universities**
- **252 Scholars named**
- **256 Honorable Mentions awarded**
- **144 Scholars identify as male and 108 as women**
- **30 are studying mathematics,**
- **157 came from the physical and biosciences,**
- **59 are pursuing degrees in engineering, and**
- **6 are computer science majors.**
- **Virtually all of them intend to obtain a PhD.**



From left to right: Tom Werner, Nicholas McCarty, Erin Maier and Rae Corrigan at the 2016 Honors at Iowa Recognition Ceremony. Photo credit: Lindsay Marshall, April 10