

Josh Carter

Senior in Dual Degrees
Mechanical Engineering and Microbiology

Wins Rhodes Scholarship



Rhodes Scholarship

Josh Carter, a senior at Montana State University with a passion to develop smart prosthetics and find a way to distribute them to the people throughout the world who most need them, has been named a recipient of a 2017 Rhodes Scholarship to study at Oxford University.

Carter is the 11th MSU student to receive a Rhodes Scholarship, considered the oldest and one of the most prestigious international academic awards.

Carter is earning bachelor's degrees in both mechanical engineering in the College of Engineering and microbiology in the College of Letters and Science and the College of Agriculture. He is also a student in MSU's Honors College. He said he plans to use the scholarship to earn a master's in clinical neuroscience – a new field for him – to help him better understand how to develop smart prosthetics. Carter hopes to eventually earn an M.D. and a Ph.D. with a career developing smart prosthetics and finding a way to distribute them to those who might not be able to afford them.

“There is a statistic from the World Health Organization that something like 95 percent of the amputees in the developing world have no access to prosthetics,” said Carter, who hopes to work to help reverse that.

Shortly after coming to MSU, Carter, who submitted a musical composition as his application to the MSU Honors College, attended an Honors Freshman Research Symposium. There he was fascinated as Blake Wiedenheft, professor of microbiology and immunology, spoke about the work he was doing in Clustered regularly interspaced short palindromic repeats -- or CRISPR technology -- as well as a new lab he was developing. Carter read some of Wiedenheft's papers then contacted Wiedenheft and asked if he could join the lab. As a freshman, Carter became involved in cutting edge research focusing on the CRISPR genome editing tool -- and developed a new passion -- this one for research.

“It was immediately evident that Josh had an unusual ability to quickly understand and communicate scientific concepts that normally take considerable effort,” Wiedenheft said of Carter's work in his lab. “In the last four years, Josh has made considerable contributions to one of the fastest moving fields in science.”