UC SANTA BARBARA

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Excellence in Research

Three graduating seniors have been recognized for their outstanding contributions to undergraduate research at UC Santa Barbara.

The Chancellor's Award for Excellence in Undergraduate Research for 2016 has been awarded to Charles Joseph Key, who has earned a bachelor of arts degree in history; to Kuang Wei, who has completed a bachelor of science degree in physics; and to Catherine Enders, who will graduate with a bachelor of arts degree in psychology, with minors in both statistical science and professional writing.

Under the mentorship of Professor Laura Kalman, Key completed a senior honors thesis analyzing how and why black Americans were disproportionately singled out for gun control measures in the latter half of the 1900s. To conduct research he traveled across the country, accessing records at the Library of Congress in Washington, D.C., and the National Rifle Association Museum in Virginia, as well as the California State Archives, the Ronald Reagan Library and the Bancroft Library at UC Berkeley.

Describing Key's thesis, Sharon Farmer, chair of the history department, called it an "extremely original piece of research that has implications for changing the ways in which we look at the history of gun control, and with the potential to be published in a major scholarly journal."

Graduating with distinction in his major, Key also is the recipient of an Undergraduate Research and Creative Activities grant to help fund his independent

research. He received dean’s honors for six quarters. Key next plans to pursue a law degree.

Wei started working in Professor Megan Valentine’s lab, in the Department of Mechanical Engineering, as a freshman. He helped to research experimental single-molecule biophysics, studying the mechanical properties of microtubules and their interactions with tau proteins, which have been linked to dementia disorders. In his third year at UCSB, he transitioned into Professor Jean Carlson’s Complex Systems Group, where he began working on data-driven theoretical neuroscience research.

Over the past year, Wei wrote a thesis on improving the methodology used to construct more accurate graph representations of the human brain. He traveled across the country to present his research at multiple conferences, including the UC LEADS Symposium, where he won the Outstanding Poster Presentation Award in the physical sciences and mathematics category.

In addition to this award, Wei graduated with Physics Highest Academic Honors in the College of Creative Studies. He also is the recipient of the Arnold Nordsieck Award, an annual prize given to one graduating senior in physics who shows research promise. With funding support from the Yoichiro Nambu Fellowship, Wei will next pursue a doctorate in physics at the University of Chicago.

In her time at UCSB, Enders has distinguished herself as an experienced undergraduate researcher. At the campus-based Center for Nanotechnology in Society, she assisted in research on public perceptions of the risks and benefits of hydraulic fracturing. As a participant in the Chancellor’s Undergraduate Sustainability Research Program, she focused on sustainability psychology and took the lead on research design and statistical analyses.

Enders was one of only 12 students nationwide selected to participate in the prestigious Policy, Science, Technology and Society Scholars Program for undergraduates hosted by Arizona State University and funded by the National Science Foundation. In 2015, she received an Undergraduate Research and Creative Activities grant to help fund her independent research on the relationship between social identity and pro-environmental behavior.

Graduating with honors from the College of Letters and Science, and with distinction in her major for completing a senior honors thesis, Enders is also the recipient of the Morgan Award for Academic Excellence in Psychology from the Department of

Psychological and Brain Sciences. She will next attend UC Berkeley, where she plans to pursue a master of public health degree in epidemiology and biostatistics.

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.