UC SANTA BARBARA
THE Current

July 16, 2019
Sonia Fernandez

Early Career High Achievers

Three UC Santa Barbara junior faculty members have been awarded the Presidential Early Career Award for Scientists and Engineers (PECASE). Spencer Smith, in electrical and computer engineering, Phillip Christopher, in chemical engineering, and Andrea Young in physics join more than 300 others across the country in receiving the award.

The PECASE is the highest honor bestowed by the U.S. government on outstanding scientists and engineers who are beginning their independent research careers and show exceptional promise for leadership in science and technology.

“Our campus is delighted to congratulate Professor Christopher, Professor Smith and Professor Young on this wonderful national recognition," said UCSB Chancellor Henry T. Yang. "This prestigious award is a testament to the tremendous promise Andrea, Spencer and Phil show as leaders in their respective fields, and we look forward to their continuing contributions at the forefront of innovation and research.”

“The future of the College of Engineering depends to a great extent on our young faculty members, so every time they receive prestigious awards, we are delighted, knowing that the future is bright,” said Rod Alferness, dean of UC Santa Barbara’s College of Engineering. “We therefore heartily congratulate both Phillip Christopher and Spencer Smith for receiving these important PECASE awards.”

Smith, whose research lies at the intersection of engineering and neuroscience, was nominated for the award by the National Institutes of Health. He will use the award

to continue his lab and colleagues' effort to develop new imaging tools for neuroscience, aiming to gain insights into how neural circuitry works. "I always hope what I'm doing is useful to other people, and recognition like this makes me think that it is," he said.

Meanwhile, Phillip Christopher's work is focused on controlling catalytic reactions at metal surfaces using light, which, according to him, "is a unique energy carrier that can be used to manipulate bond breaking with specificity that cannot be achieved by heating the system up." The applications of his work could lend themselves toward efficiencies in fuel consumption and production.

"The PECASE award is a great honor," said Christopher, who was nominated by the Department of Defense.

At condensed matter physicist Andrea Young's lab, the researchers are investigating the remarkable properties of graphene, a two dimensional carbon-based material with great potential in both practical use and theoretical study.

"I'm grateful to the Department of Defense for the nomination and for their far-sighted support of basic research," said Young, whose work focuses on the investigation of the atom-thick material's quantum behaviors, the results of which could lead to, among many other things, components for future quantum computers.

"I congratulate Andrea Young on this prestigious honor, which recognizes his work at the forefront of studying the electronic properties of nano-fabricated quantum materials," said Pierre Wiltzius, dean of mathematical, life and physical sciences at UC Santa Barbara. "This award will allow him to accelerate his groundbreaking research. I am so proud of his accomplishments."

Winners of the PECASE award will be honored in a ceremony to be held Thursday, July 25, in Washington, D.C.

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.