

NIH Doles Out \$3M in New Innovator Awards to Two UC San Diego Faculty

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Two faculty members at the University of California, San Diego have received New Innovator Awards from the National Institutes of Health, awards intended to accelerate the translation of cutting-edge science and research to improvements in human health.

Karen Christman, assistant professor of bioengineering at the UC San Diego Jacobs School of Engineering, and Seth J. Field, an assistant professor of medicine at UC San Diego's School of Medicine, will each receive five-year, \$1.5 million grants to support their work.

Christman's research will help fuel the growing field of tissue engineering by developing surfaces that provide step-by-step cues for cell and tissue development - research that is critical because no efficient methods have been developed to control stem cell differentiation. (More information on Christman's research and award can be found at [here](#)).

"If you can better mimic what the cell sees inside of the body, then we should be able to better control cell fate," said Christman. "It's basically being able to generate cell sources and trying to control cell behavior. This could be used for all sorts of regenerative medicine approaches." Christman joined the Department of Bioengineering in 2007, which ranks second in the nation for biomedical engineering, according to *U.S. News and World Report*. UC San Diego's bioengineering department has ranked among the top five programs in the nation every year for the past decade.

Across the UC San Diego campus, Seth J. Field from UC San Diego's School of Medicine will develop a multi-pronged, systematic approach to understanding the function of lipid molecules that transmit signals within cells. Despite the importance of these molecules in diseases ranging from cardiovascular and neurologic disease to diabetes and cancer, little is known about their functions. Field plans to study these seven lipid signaling molecules, called phosphoinositides, and their roles in regulating cell growth and death, metabolism, and communication processes within cells.

Field earned his M.D. and Ph.D. degrees in genetics from Harvard University, where he served as an instructor at the Harvard Medical School prior to coming to UC San Diego in 2005.

The NIH granted New Innovator Awards to a total of 31 young scientists across the United States. The awards were created in 2007 to support a small number of new investigators who have exceptional creativity and propose bold and highly innovative new research approaches that have the potential to produce a major impact on broad, important problems in biomedical and behavioral research.

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