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Andrea Estrada

UCSB Associate Professor to Receive Prestigious NIH New Innovator Award

Songi Han, associate professor of chemistry and biochemistry at UC Santa Barbara, has been selected to receive a coveted 2011 New Innovator Award from the National Institutes of Health (NIH). She is one of 49 researchers in the nation to be so honored.

"This award gives me the amazing opportunity to take the basic instrumental and methodological development of a novel spectroscopic tool carried out in my lab to the next level of complexity and relevance, namely, to understand molecular mechanisms of protein aggregation underlying neurodegenerative diseases," said Han, who will receive a grant of $1.5 million.

"My tool is developed entirely from scratch, starting from a general idea that the structure and dynamics of hydration water coupled to the protein surface should be an ultra-sensitive way of detecting intermolecular contact and interaction. I am excited and impressed that NIH is investing in this high-risk, high-reward research," she said.

A key goal of Han's research is to study the molecular detail of early aggregation of various proteins implicated in Alzheimer's and other neurodegenerative diseases, and also to study their interactions with cell membranes that may provide clues to their mechanisms and disease effects.

UCSB Chancellor Henry T. Yang said: "Our campus is proud of Professor Han and her innovative research on novel spectroscopic instrumentation and methods for measuring essential interactions between proteins, particularly those involved in neurodegenerative diseases. Her research has tremendous potential for practical medical applications. I am delighted that her extraordinary contributions are being recognized with the prestigious NIH New Innovator Award."

Han and other award recipients will be recognized at a two-day NIH symposium in Bethesda, Md., that begins on Tuesday, September 20.

Han, who joined the UCSB faculty in 2004, received her doctoral degree in the natural sciences from Aachen University of Technology in Germany. Her Ph.D. thesis on magnetic resonance was recognized with the first Raymond Andrew Prize of the Ampere Society. She completed postdoctoral studies at UC Berkeley with the Feodor Lynen Fellowship of the Humboldt Foundation.

She is the recipient of numerous honors and awards, including the 2010 Dreyfus-Teacher Scholar Award, the 2008 Packard Fellowship for Science and Engineering, the 2007 National Science Foundation Early Career Development Award, and the 2004 Camille and Henry Dreyfus New Faculty Award.

More information about the New Innovator Awards, including a complete list of this year's recipients, is available at http://commonfund.nih.gov/newinnovator.

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