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Two Engineering Professors Named to National Academy of Inventors

UC Santa Barbara engineering professors Samir Mitragotri and Steven DenBaars have been named to the rank of Fellows of the National Academy of Inventors. Recognized for their “highly prolific spirit of innovation,” Mitragotri and DenBaars can be credited with more than 220 issued and pending U.S. patents in total. Their research in biotechnology and energy efficiency have been commercialized and developed into products by companies around the world.

Mitragotri and DenBaars are the first among faculty to be elected to the rank of Fellow in the NAI, which was founded in 2010 to recognize inventors that hold patents issued by the U.S. Patent and Trademark Office (USPTO). This year, they join 141 other innovators from top-tier research institutions across the globe who received the NAI’s highest professional distinction.

"It is a great honor to be recognized for my inventions by NAI, and to have my research supported by UCSB for over 20 years," said DenBaars, professor of materials and of electrical and computer engineering at UCSB. DenBaars is the co-director of the Solid State Lighting and Energy Center and holder of the Mitsubishi Chemical Chair in Solid State Lighting and Displays at UCSB.

DenBaars’ research focuses on electronic materials growth and semiconductor devices, particularly in the realm of compound semiconductors such as indium phosphide and gallium nitride (GaN). He holds more than 165 patents, with several

more pending on GaN growth and processing. Recently, he was part of a team that determined the optimal structure for phosphors (a key component in LED lighting), a breakthrough that can lead to brighter and more efficient LED lights.

Mitragotri is a professor of chemical engineering, a founding director of the Center for BioEngineering and director of the Translational Medical Research Laboratory at UCSB. Mitragotri's research focuses on drug delivery and biotechnology, and has led to dozens of patents and pending applications. His research has enabled the development of needle-free methods of drug delivery, synthetic blood components that mimic the structure and certain functions of red blood cells and platelets, and nanoparticles that amplify the effectiveness of targeted drug delivery, such as chemotherapy.

"I am excited to be elected as an NAI fellow," Mitragotri said. "This celebrates the inventive spirit of research at UCSB. Innovation is a key feature of research and we are delighted to see it recognized."

"Professors Mitragotri and DenBaars are a great example of faculty that efficiently partner with industry to produce inventions with commercial potential," said Sherylle Mills Englander, director of the Office of Technology and Industry Alliances.

Rod Alferness, dean of the UCSB College of Engineering, said: "Professors Mitragotri and DenBaars have performed highly creative research and produced a volume of viable intellectual property that has sparked technological innovations in areas such as health care and energy efficiency, respectively. Their work is changing the world and benefiting society. We are very proud of their achievements and this prestigious recognition."

Induction into the NAI is the latest of several honors both Mitragotri and DenBaars have received over the course of their careers. DenBaars is a Fellow of the prestigious National Academy of Engineering (NAE) and the Institute of Electrical and Electronics Engineers (IEEE), and was the recipient of the Aron Kressel award from the IEEE Photonics Society. DenBaars earned his Ph.D. in electrical engineering from the University of Southern California. Mitragotri is a Fellow of the American Association for the Advancement of Science (AAAS) and the American Institute for Medical and Biological Engineering (AIBME). Several of his inventions have received Edison awards for innovation.

DenBaars and Mitragotri will be inducted into the Academy at a ceremony in March 2014 in Alexandria, Va., at the USPTO headquarters.

"Selection as an NAI Fellow is a high honor," said Anne Chasser, former U.S. Commissioner for Trademarks at the USPTO and chair of the NAI Fellows Selection Committee. "The Fellows have made outstanding contributions to innovation and discovery, in ways that have had a significant impact on quality of life, economic development and the welfare of society."

Included among NAI’s 2013 Fellows are five inductees of the National Inventors Hall of Fame, six recipients of the U.S. National Medal of Technology and Innovation, two recipients of the U.S. National Medal of Science, and nine Nobel Laureates among other awardees.

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.