

Shu Chien to Receive National Medal of Science in White House Ceremony on Oct. 21

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President Barack Obama will present University of California, San Diego bioengineering Professor Shu Chien with the National Medal of Science in a White House ceremony Oct. 21 at 2 p.m. EST (11 a.m. PST). The ceremony will be carried live by satellite feed and webcast on the White House website at: <http://www.whitehouse.gov/live>.

Chien will be honored alongside six other Medal of Science winners and five recipients of the National Medal of Technology. The awards are the highest honors bestowed by the U.S. government on scientists, engineers and inventors. According to a White House announcement, President Obama will also use the occasion to announce new steps to speed the process of moving university research to the marketplace.

Pleased and humbled by the honor, Chien said it is an important symbol of the nation's investment in scientific research and innovation.

"What makes the economy strong? It's the scientific base," said Chien. He added that in addition to spurring the kind of innovation that creates new technologies, companies and jobs, investment in research also encourages young people to pursue science and engineering fields.

When Chien joined the bioengineering program at UC San Diego in 1988, it had just six faculty members. Still, Chien saw what he could help build here and the potential was too alluring to pass up. He led the effort to form the Department of Bioengineering in 1994.

Now, the department is a leader in systems biology, regenerative medicine and multi-scale bioengineering focused on understanding, diagnosis and treatment of human disease. For example, Chien is an expert on how blood flow and pressure affect vessels, and his research has led to the development of better diagnostic tests and treatments for atherosclerosis. He likens the flow of blood through the cardiovascular system to a river. Where the river runs straight there are few problems, but as the river branches, flow becomes more complex, moving forward and backward, and creating conditions that increase the risk of disease. He is also collaborating on multiple projects in regenerative medicine to develop a process to identify the best environments in which to grow stem cells.

The *San Diego Union-Tribune* featured an in-depth profile of Chien's life and research contributions on its front page last Sunday.

Chien is also director of the UC San Diego Institute of Engineering in Medicine which has research centers focusing on health and disease in cardiac, musculoskeletal, retina, and neurological systems; on medical devices and instrumentation technologies; multiscale imaging in living systems; and nanomedicine and nanoengineering. The institute also fosters student training, industry cooperation and entrepreneurship.

The National Medal of Science was created by statute in 1959 and is administered for the White House by the National Science Foundation. Awarded annually, the Medal recognizes individuals who have made outstanding contributions to science and engineering. Nominees are selected by a committee of presidential appointees based on their extraordinary knowledge in and contributions to chemistry, engineering, computing, mathematics, and the biological, behavioral/social, and physical sciences.

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