

Chinese American Scientist Prof. Roger Tsien Received 2008 Nobel Prize in Chemistry



Professor Roger Tsien, Ph.D., a professor of pharmacology, chemistry and biochemistry at UC San Diego and a Howard Hughes Medical Institute investigator, shared the 2008 Nobel Prize in Chemistry with Osamu Shimomura of the Marine Biological Laboratory in Woods Hole and Boston University School of Medicine, and Martin Chalfie of Columbia University in New York.

The Prize “rewards the initial discovery of GFP and a series of important developments which have led to its use as a tagging tool in bioscience. By using DNA technology, researchers can now connect GFP to other interesting, but otherwise invisible, proteins. This glowing marker allows them to watch the movements, positions and interactions of the tagged proteins. The impact of his groundbreaking success in the

development of colorful, glowing dyes and proteins to track cellular behavior has earned him the Nobel Prize.”, as announced by the the Royal Swedish Academy of Sciences

Dr. Roger Tsien described his goal in research as “to understand how living cells and neuronal networks process information. Our preferred approach is through the rational design, synthesis, and use of new molecules to detect and manipulate intracellular biochemical signals, usually by optical means, such as fluorescent readout or photochemical release of messenger substances.”. He has renown for his seminar work in developing fluorescent dye Fura-2, a calcium chelating agent, for study of intracellular calcium after receptor stimulation or ion channels in 1985. Roger’ lab later engaged in developing variants of GFP in 90’s that led to his Nobel Prize this year.

Roger Tsien came from an intellectual family. His close relatives include the China’s father of nucleus technology and the foremost scientist, Dr. Xueshen Qian (Tsien). Dr Roger Tsien is the second scientist with Chinese heritage received Nobel Prize in Chemistry and is the 7th scientist of Chinese origin to receive Nobel Prize in science.



A petri dish marked with Green Fluorescent Protein (GFP).