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UC San Diego Cancer Scientists Named to First Class of AACR Fellows

Five University of California, San Diego scientists and professors are among the first class of the Fellows of the American Association for Cancer Research Academy, created to recognize researchers whose scientific contributions have propelled significant innovation and progress against cancer. The entire class consists of 106 individuals, to celebrate the 106 year anniversary of AACR, the world's first and largest professional organization dedicated to advancing cancer research.

The inaugural class of Fellows of the AACR Academy includes Napoleone Ferrara, MD, UC San Diego Moores Cancer Center, senior deputy director for basic science; Roger Y. Tsien, PhD, UCSD professor of pharmacology and of chemistry and biochemistry; Webster K. Cavenee, PhD, director of the Ludwig Institute for Cancer Research at UC San Diego and UCSD professor of medicine; Tony Hunter, PhD, director of the Salk Institute Cancer Center, and Geoffrey Wahl, PhD, Salk Institute for Biological Studies professor – both UCSD adjunct professors in the division of biological science.

“Our Board of Directors made the decision to establish the AACR Academy as a mechanism for recognizing scientists whose contributions to the cancer field have had an extraordinary impact,” said Margaret Foti, PhD, MD (hc), chief executive officer of the AACR. “Membership in the Fellows of the AACR Academy will be the most prestigious honor bestowed by the American Association for Cancer Research.”

Ferrara, the investigator credited with helping decipher how tumors grow, is recognized for his work identifying the role of vascular endothelial growth factor (VEGF) in promoting angiogenesis—the formation of new blood vessels that can feed tumor growth—and subsequent development of two major monoclonal antibody drugs: Bevacizumab (Avastin), which is used to treat multiple forms of cancer and Ranibizumab (Lucentis), which treats wet age-related macular degeneration, a leading cause of blindness in the elderly.

Tsien, who shared the 2008 Nobel Prize in chemistry for his role in helping develop and expand the use of green fluorescent proteins (GFP), is honored for his revolutionary work in the fields of cell biology and neurobiology. He is known for developing GFPs that allow scientists to peer inside living cells and watch the behavior of molecules in real time. Scientists can track where and when certain genes are expressed in cells or in whole organisms. Tsien is currently building on his fluorescent protein work to develop a novel way to image and possibly deliver specially targeted drugs to cancer tumors.

Cavenee is recognized for having provided the first indisputable evidence of tumor suppressor genes. He has conducted research that has changed the understanding of tumor initiation and progression. Cavenee's recent research has focused on gliomas—a tumor that begins in the brain or spine—and his team has found that an abnormal version of the protein epidermal growth factor receptor, named EGFRviii, is common in the most rapidly progressive primary brain tumors in humans.

Dubbed the “Kinase King,” Hunter's work identified one of the critical switches required to initiate normal cell proliferation, and showed that the enzyme tyrosine kinase switch is frequently permanently turned on in cancer cells. His work has led to the discovery and development of many effective drugs targeting abnormal kinase signaling in cancer cells.

A widely recognized expert in understanding the genetic instability of cancer cells and why tumors become resistant to drugs, Wahl's research showed that such instability often results from mutations in key tumor suppressor genes such as p53. He recently discovered links between embryonic breast stem cells and stem-like cells in some of the most lethal breast cancers. This research is aimed at developing personalized therapeutic strategies to combat cancer.

The inaugural class of Fellows will be inducted into the AACR Academy on Friday, April 5 at the National Museum of Women in the Arts in Washington, D.C.

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