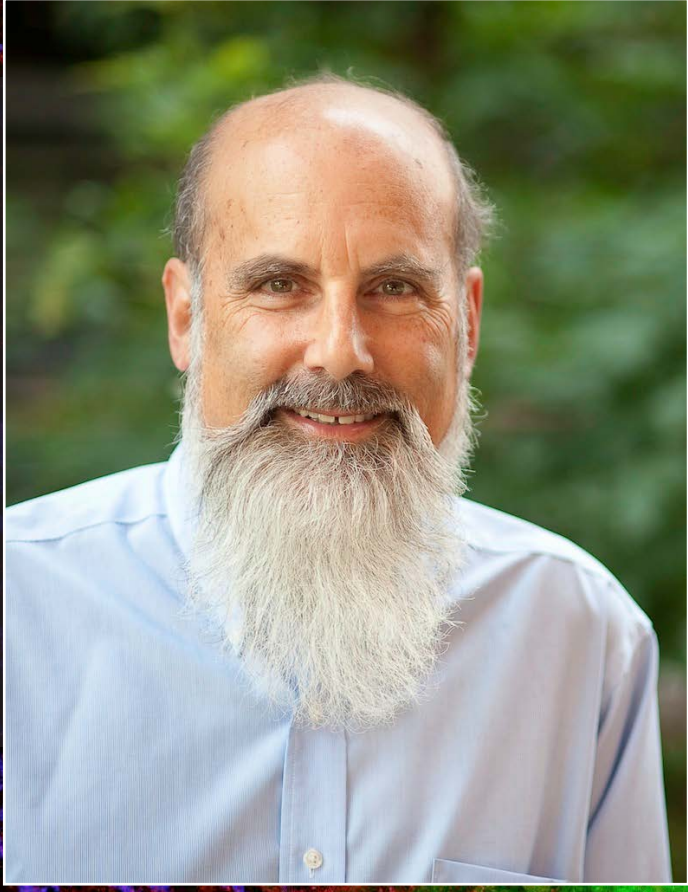


Scientific Computing and Imaging Institute

Distinguished SCI Seminar



Matthew P. Scott

Howard H. and Jessie T. Watkins University Professor
and Professor of Developmental Biology, Genetics,
Bioengineering, and, by courtesy, Biology,
at Stanford University

October 4th 2:00 - 3:00pm
WEB 3780

Communicating with Hedgehogs: Transduction and Gene Regulation

Hedgehog signaling is employed in the development of most tissues and organs. Damage to the signal transduction machinery leads to birth defects and cancer. The Scott lab is studying the mechanisms and functions of transduction in the context of cerebellum development and tumorigenesis. Recent studies include analyses of the roles of primary cilia and Neuropilin proteins, and of selective target gene regulation.

Bio:

Matthew Scott did undergraduate and graduate work at M.I.T., with Prof. Mary Lou Pardue as his Ph.D. thesis advisor. He moved to Indiana University for his postdoctoral work as a Helen Hay Whitney fellow with Profs. Thomas Kaufman and Barry Polisky. He then set up his own lab at the University of Colorado, Boulder. Scott came to Stanford in 1990 to join the newly formed Department of Developmental Biology, and the Department of Genetics. His research focus is on genes that control development, and how damage to them leads to birth defects, cancer, and neurodegeneration. He discovered the "homeobox", an evolutionarily conserved component of many genes that control development. His lab group discovered the genetic basis of the most common human cancer, basal cell carcinoma, and of the most common childhood malignant brain tumor, medulloblastoma. He served as Associate Chair and Chair of the Department of Developmental Biology for a total of six years. He chaired the Bio-X program from 2001-2007, and has since joined the Department of Bioengineering and, by courtesy, the Department of Biology. He is presently co-chair of the Center for Children's Brain Tumors. He has been recognized by election to the American Academy of Arts and Sciences, the National Academy of Sciences, and the National Institute of Medicine, and served as President of the Society for Developmental Biology. His awards include the Passano Award (1990), the Conklin Medal of the Society for Developmental Biology (2004), and the Pasarow Award in Cancer Research (2013).



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