

BIOGRAPHICAL SKETCH. PROF. TERRENCE J. SEJNOWSKI



Terrence Sejnowski is a pioneer in computational neuroscience and his goal is to understand the principles that link brain to behavior. His laboratory uses both experimental and modeling techniques to study the biophysical properties of synapses and neurons and the population dynamics of large networks of neurons. New computational models and new analytical tools have been developed to understand how the brain represents the world and how new representations are formed through learning algorithms for changing the synaptic strengths of connections between neurons. He has published over 300 scientific papers and 12 books, including *The Computational Brain*, with Patricia Churchland.

He received his PhD in physics from Princeton University and was a postdoctoral fellow at Harvard Medical School. He was on the faculty at the Johns Hopkins University and he now holds the Francis Crick Chair at The Salk Institute for Biological Studies and is also a Professor of Biology at the University of California, San Diego, where he is co-director of the Institute for Neural Computation and co-director of the NSF Temporal Dynamics of Learning Center. He is the President of the Neural Information Processing Systems (NIPS) Foundation, which organizes an annual conference attended by over 1000 researchers in machine learning and neural computation and is the founding editor-in-chief of *Neural Computation* published by the MIT Press.

An investigator with the Howard Hughes Medical Institute, he is also a fellow of the American Association for the Advancement of Science and the Institute of Electrical and Electronics Engineers. He has received many honors, including the Wright Prize for interdisciplinary research from Harvey Mudd College, the Neural Network Pioneer Award from the Institute of Electrical and Electronics Engineers and the Hebb Prize from the International Neural Network Society. He was elected to the Institute of Medicine in 2008 and to the National Academy of Sciences in 2010.