02 January, 2006



Professor Mriganka Sur, Chair of Brain and Cognitive Sciences Department at MIT delivered a lecture in the State Key Lab Lecture Series

STATE KEY LAB LECTURE SERIES "Cortical Plasticity"

by

Dr. Mriganka Sur **Sherman Fairchild Professor of Neuroscience** Head, Department of Brain and Cognitive Sciences, MIT Date and time: 4:30pm, Wednesday, 18 January, 2006 Location: Seminar Rm 5, LG1, Lab Block, Sassoon Road

About the Speaker:

Mriganka Sur is the Sherman Fairchild Professor of Neuroscience and Head of the Department of Brain and Cognitive Sciences at the Massachusetts Institute of Technology (MIT). He was born in Fatehgarh, India, in 1953, received the BTech degree in Electrical Engineering from the Indian Institute of Technology, Kanpur in 1974, and the MS and PhD degrees in 1975 and 1978, respectively, from Vanderbilt University, Nashville. After postdoctoral research at SUNY Stony Brook, he was appointed to the faculty of Yale University School of Medicine in 1983. Professor Sur joined the faculty of the Department of Brain and Cognitive Sciences at MIT in 1986. He was named full Professor in 1993, and department head in 1997. He was appointed to the Sherman Fairchild Chair of Neuroscience in 1998.

Professor Sur studies the development, plasticity and function of the cerebral cortex of the brain, using experimental and computational approaches. His laboratory has discovered fundamental principles by which neurons of the cerebral cortex are wired during development and change dynamically in adulthood as they process information. He is the author of over 160 publications, serves on the board of major journals, and has delivered over 300 lectures world-wide. His awards and honors include the Meghnad Saha Award of the Institution of Electrical Engineers, India; the Charles Judson Herrick Award of the American Association of Anatomists; the Sloan Fellowship from the A.P. Sloan Foundation; the McKnight Development Award from the McKnight Foundation; the Sigma Xi Distinguished Lectureship; the Distinguished Lectureship of the Australian Neuroscience Society; and the Distinguished Alumnus Award of the Indian Institute of Technology, Kanpur. At MIT, he has received awards for outstanding teaching, and been honored with the Teuber Scholar Award and the Fairchild Chair. He has been elected to the membership of the National Academy of Sciences, India; the Neurosciences Research Program, USA ; the Rodin Academy, Sweden; and the American Academy of Arts and Sciences. He serves on several national and international panels, including the Advisory Council of the National Eye Institute, NIH, and the Scientific Advisory Committee of the Department of Biotechnology, India.

Abstract:

The cerebral cortex of the human brain is a sheet of about 10 billion neurons divided into discrete subdivision or areas that process particular aspect of sensation, movement, and congnition. Recent evidence has begun to transform our understanding of how cortical areas form, make specific connections with other brain regions, develop unique processing networks, and adapt to changes in inputs.

Sur, M. and Rubenstein, JL. (2005). Patterning and plasticity of the cerebral cortex. Science 310:805-810.