Previous years Heller lectures

By elsc_admin
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Archive list and videos of Heller lectures from previous years.

- **What the perceptual expert cannot tell you**
  Speaker: Prof. Isabel Gauthier (Professor of Psychology Vanderbilt University, Nashville)

- **Plasticity in the brain is not always good: examples from hearing impairment**
  Speaker: Prof. Eric Young (Professor of Biomedical Engineering & Neuroscience John Hopkins University, Baltimore)

- **Time and belief: A neural mechanism of decision making**
  Speaker: Prof. Michael Shadlen (Professor of Physiology & Biophysics Howard Hughes Medical Institute, University of Washington, Seattle)

- **The nature and control of blood flow in the brain**
  Speaker: Prof. David Kleinfeld (Professor of Physics & Neuroscience UC San Diego)

- **Flying with Drosophila in the face of neurodegenerative disease**
  Speaker: Prof. Nancy Bonini (Howard Hughes Medical Institute, Department of Biology University of Pennsylvania)

- **How does the brain navigate in space**
  Speaker: Edvard I. Moser (Kavli Institute for Systems Neuroscience, NTNU, Trondheim, Norway)
Intelligence and Learning in Brains and Machines
Tomaso Poggio (Center for Biological & Computational Learning McGovern Institute Computer Science and Artificial Intelligence Department of Brain and Cognitive Sciences Massachusetts Institute of Technology)

The beginnings of optogenetics
Prof. Gero Miesenboeck (Waynflete Professor of Physiology at the University of Oxford)

Integrating neuroscience knowledge: Brain research in the digital age
Prof. Mark Ellisman (Director of the National Center for Microscopy and Imaging Research, University of California San Diego, USA)

Eyes smarter than scientists believed: Neural computations in the retina
Prof. Markus Meister (Center for Brain Science, Harvard University, Cambridge, USA)

How experience changes the circuitry of the brain
Prof. Tobias Bonhoeffer (Director, Max Planck Institute of Neurobiology, Munich - Germany)

The Social Brain: Perception, Motion and Emotion
Prof. Gregory McCarthy (Department of Psychology, Yale University, USA)

Does bigger mean better? Intersubject variability in human brain anatomy
Prof. Dr. Katrin Amunts (Institute of Medicine, Research Center Jülich & Department of Psychiatry, RWTH University, Aachen, Germany)

Mirror neurons: a mechanism for understanding others
Prof. Giacomo Rizzolatti M.D. (Department of Neuroscience, University of Parma, Italy)

The Stuff of Thought: Language as a Window into Human Nature
Prof. Steven Pinker (Harvard University)
May 01, 2007
Human Prefrontal Cortex and Behavior
Speaker: Prof. Robert T. Knight (M.D. Helen Wills Neuroscience Institute and Department of Psychology, University of California, Berkeley)

March 20, 2007
Mechanisms of learning in the auditory system of the barn owl
Speaker: Prof. Eric Knudsen (Department of Neurobiology, Stanford University)

March 06, 2007
Human CNS Pain Pathways and Networks
Speaker: Prof. Fred Lenz (The Johns Hopkins Hospital, Department of Neurosurgery, Baltimore - USA)

January 23, 2007
Measuring time - the ultimate challenge for sensory systems
Speaker: Prof. Benedikt Grothe (Director, Department Biology II, Faculty of Biology Ludwig-Maximilians University - Munich)

January 02, 2007
A Critique of Pure Vision
Speaker: Prof. Terrence J. Sejnowski (Head of the Computational Neurobiology Laboratory The Salk Institute for Biological Studies, San Diego Calif. - USA)

April 04, 2006
PATTERN CLASSIFICATION: LESSONS FROM OLFACTION
Speaker: Prof. Gilles Laurent (Division of Biology, computation and Neural Systems, Caltech, USA)

March 07, 2006
The self-tuning brain: homeostatic plasticity in neural microcircuits
Speaker: Prof. Gina Turrigiano (Volen Center for Complex Systems, Brandeis University, USA)

February 05, 2006
The Art of Neuroscience
Speaker: Prof. Kevan Martin (Institute of Neuroinformatics University - ETH Zurich)

January 10, 2006
Our Habitual Lives: How the Brain Makes and Breaks Habits
Speaker: Prof. Ann M. Graybiel (Department of Brain and Cognitive Sciences, McGovern Institute for Brain Research at MIT)
June 07, 2005
Watching the brain compute and tracing its wires: new methods to solve old riddles
Prof. Winfried Denk (Max-Planck Institute for Medical Research -Department of Biomedical Optics)

May 23, 2005
Doing many things at once: Controlling dynamics, kinematics and final position in reaching
Prof. Claude P. Ghez, M.D. (Columbia University, Center for Neurobiology and Behavior)

April 13, 2005
Computing with Neural Ensembles
Prof. Miguel A. L. Nicolelis (Department of Neurobiology, Duke University Medical Center)

March 16, 2003
How the Brain Generates Consciousness?
Baroness Prof. Susan Greenfield (Director of the Royal Institution of Great Britain, Professor of Pharmacology, Oxford)

June 14, 2004
The Physiology of Truth: From Molecular Biology of the Brain to Consciousness
Prof. Jean-Pierre Changeux (Department of Neuroscience, Pasteur)

February 02, 2004
The Dynamic Origin of Consciousness
Prof. Rodolfo Linas (School of Medicine, Physiology and Neuroscience NYU ? New York City, USA)

December 21, 2003
Inside the Songbird’s Brain: The Neural Control of Vocalization
Prof. Michale Fee (MIT)

May 08, 2005
Experience-dependent Modification of Developing Neural Circuits
Prof. Mu-ming Poo (Department of molecular and Cell Biology University of California, Berkeley)

June 07, 2004
The Quest for Consciousness: A Neurobiological Approach
Prof Christof Koch (Computation and Neural Systems, Caltech)

Shortcuts from molecules to behavior. The case of the NMDA receptor
Prof Philippe Ascher (CNRS Paris)

November: From Molecular Biology of the Brain to Consciousness
Prof. Pierre Changeux (Department of Neuroscience, Pasteur)

October: The Origin of Consciousness
Prof. Rodolfo Linas (School of Medicine, Physiology and Neuroscience NYU ? New York City, USA)
Cortical Microcircuits and their Plasticity
Speaker: Prof. Bert Sakmann ((Noble Laureate), Max Planck Institute, Heidelberg, Germany.)

Basal Ganglia and Cerebellar 'Loops' with the Cerebral Cortex: Circuits for Movement, Cognition and Perception
Speaker: Prof. Peter Strick (VA Senior Research Career Scientist, Pittsburgh University, Veterans Affairs Medical Center and Co-Director, Center for Neural Basis of Cognition and Perception, University of Pittsburgh)

Tracking the Spotlight of Attention: Psychophysics and Physiological Mechanisms
Speaker: Prof. Michael E. Goldberg (Department of Neurobiology, Psychiatry and the Center for Neurobiology and Behavior, College of Physicians and Surgeons.)

It is now widely accepted that deciphering the enigma of the brain is the most challenging intellectual endeavor of the 21st century, "The Century of the Brain" - Join our quest and become a friend of ELSC.

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