

THE AIMS OF BRAIN RESEARCH: SCIENTIFIC AND PHILOSOPHICAL PERSPECTIVES

The 28th Annual International Workshop on the History and Philosophy of Science
Monday-Thursday, December 1-4, 2014, at the Van Leer Jerusalem Institute

Monday, December 1st

at the Van Leer Jerusalem Institute

9:00-9:30 Gathering and refreshments

Morning Sessions

The Biological Brain

9:30-12:00

Greetings: Orly Shenker, The Hebrew University of Jerusalem

Jean-Pierre Changeux, Institut Pasteur

**Toward a molecular biology of higher brain functions & conscious access:
Consequences for drug design**

Eva Jablonka, Tel Aviv University

Simona Ginsburg, Open University of Israel

**The evolutionary transition to consciousness:
Can we find the transition-marker?**

12:30-13:30

Michael Shadlen, Columbia University
Consciousness as a decision to engage

Afternoon Sessions

13:30-14:30 Lunch break

Mind-Brain Reduction and Explanation

14:30-16:30

Tom Polger, University of Cincinnati
Identity and explanation in the mind sciences

Lawrence Shapiro, University of Wisconsin Madison
Mechanism or bust? Explanation in psychology

17:00-18:00

Patricia Smith Churchland, University of California, San Diego
Caring and norms from the perspective of Neurobiology



Tuesday, December 2nd

at the Van Leer Jerusalem Institute

Wednesday, December 3rd

at the Van Leer Jerusalem Institute

Thursday, December 4th

at the Van Leer Jerusalem Institute

Morning Sessions

The Physical Brain

9:30-11:30

Barry Loewer, Rutgers University
Does quantum mechanics have anything interesting to say about free will and consciousness?

Meir Hemmo, University of Haifa
Orly Shenker, The Hebrew University of Jerusalem
Temporal experience and the physics of the brain

12:00-13:00

Haim Sompolinsky, The Hebrew University of Jerusalem
The quest for a theory of the brain

Comprehending the Brain: by Model and as Model

9:30-11:30

Oron Shagrir, The Hebrew University of Jerusalem
The brain as a model of the world

Idan Segev, The Hebrew University of Jerusalem
Understanding the brain via a digital brain

12:00-13:00

Marius Usher, Tel Aviv University
Computational theories should guide brain-cognitive research: An example from the study of consciousness

Behavior and the Brain

9:30-11:30

Yakir Levine, Ben-Gurion University of the Negev
Itzhak Aharon, The Hebrew University of Jerusalem
Reverse inference and mind-body identity

Adina Roskies, Dartmouth College
Brain research and the law

12:00-13:00

Concluding Perspective

Gabriel Motzkin, The Van Leer Jerusalem Institute
The illusion of consciousness?

Afternoon Sessions

Challenges for Empirical Study of the Brain

14:30-16:30

Rafi Malach, Weizmann Institute
Ignition, glow and flicker: Towards understanding the spatio-temporal dynamics of human visual perception

Shimon Marom, Technion, Israel Institute of Technology
Temporal complexity in neural systems: Consequences and challenges

17:00-18:00

Zachary Mainen, Champalimaud Centre for the Unknown, Lisbon
On neuronal 'noise' and its implications for our understanding of the brain

Consciousness and the Brain

14:30-16:30

Katalin Balog, Rutgers University
Hard, harder, hardest

Leon Deouelle, The Hebrew University of Jerusalem
On the limits and prospects of the "neural correlates of consciousness" paradigm

Heller Lecture Series in Computational Neuroscience

At Weiss Auditorium, the Edmond J. Safra Campus (Givat Ram), the Hebrew University of Jerusalem

17:00-18:30

Patricia Smith Churchland, University of California, San Diego
The brains behind morality



Admission is free.

The Van Leer Jerusalem Institute, 43 Jabotinsky St., Jerusalem, Tel: 02-5605216 www.vanleer.org.il

Photographs taken at the workshop will be posted on the Institute's website and on social networks.

Parking is not available at the Van Leer Jerusalem Institute.
(Metered parking is available on the neighboring streets.)

