



**Karolinska
Institutet**

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NOBEL SYMPOSIA

*Nobel Symposium
Karolinska Institutet 200 years*

The Enlightened Brain
Evolution and Development
of the Human Brain

June 6-9, 2010

Nobel Forum, Karolinska Institutet, Stockholm, Sweden

Sunday, June 6

19.00 Get-together at Stallmästaregården

Monday, June 7

09.00 Introduction
Hans Forsberg, Stockholm

Welcome Address on behalf of the Nobel Committee
Klas Kärre, Stockholm

Karolinska Institutet – The First Enlightened Medical School in Sweden
Hugo Lagercrantz

09.30 Keynote Introductory Lecture
Eric Kandel, New York
Molecules, brains and the disorders of the human mind

SESSION I

An Evolutionary Perspective

Chair: **Antonio Damasio, Los Angeles & Arne Öhman, Stockholm**

10.00 **Michael Tomasello, Leipzig**
Shared attention: An unique human social cognitive adaptation

10.30 *Coffee*

11.00 **Robin Dunbar, Oxford**
The role of the social brain in the evolution of human uniqueness

11.30 **Morten Kringelbach, Oxford and Aarhus**
Evolution of the neurobiology of pleasure

12.00 DISCUSSION

Discussant: Bertil Fredholm, Stockholm

12.30 *Lunch*

SESSION II

Imitation, Empathy, and Theory of Mind

Chairs: **Giacomo Rizzolatti, Parma & Ivanka Savic Berglund, Stockholm**

- 13.30 **Chris Frith, London and Aarhus**
The neuroscience of human social cognition: An overview
- 14.00 **Tania Singer, Zürich**
Neural mechanisms of empathy
- 14.30 **Josef Perner, Salzburg**
Theory of mind: Uniqueness, developmental emergence, and neural basis
- 15.00 *Coffee*
- 15.30 **Utah Frith, London**
Theory of mind and autism
- 16.00 **Henrik Ehrsson, Stockholm**
How we come to experience that we own our body
- 16.30 DISCUSSION
Discussant: Lars Nyberg, Umeå
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Tuesday, June 8

SESSION III

The Conscious-Nonconscious Divide

Chairs: **Jean-Pierre Changeux, Paris & Peter Gärdenfors, Lund**

- 09.00 **Stanislas Dehaene, Orsay**
A taxonomy of conscious and nonconscious visual states and its neural correlate
- 09.30 **Victor Lamme, Amsterdam**
Neural mechanisms for nonconscious and conscious visual processing
- 10.00 *Coffee*
- 10.30 **Geraint Rees, London**
From patterned activity in visual cortex to conscious perception
- 11.00 **Hans Lou, Aarhus**
Unity of consciousness
- 11.30 **Kenneth Hugdahl, Bergen**
On cognitive control and executive functions
- 12.00 DISCUSSION
Discussant: Peter Århem, Stockholm
- 12.30 *Lunch*

SESSION IV

Decision Making and Neuroeconomics

Chairs: **Sten Grillner, Stockholm & Lars-Göran Nilsson, Stockholm**

- 13.30 **Alan Sanfey, Nijmegen and Tucson**
Game theory, social decision-making, and neuroscience
- 14.00 **Raymond Dolan, London**
Economic theory as a probe to decision-making in the brain
- 14.30 **Etienne Koechlin, Paris**
Anterior prefrontal function as a key to human decision-making
- 15.00 *Coffee*
- 15.30 **Ernst Fehr, Zurich**
The moral brain and social decision-making: A neuroscience perspective
- 16.00 DISCUSSION
Discussant: Martin Ingvar, Stockholm
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Wednesday, June 9

SESSION V

The Neuroscience of Culture

Chairs: **Zemir Zeki, London & Tomas Hökfelt, Stockholm**

- 09.00 **Jean-Pierre Changeux, Paris**
Neuroscience of the arts
- 09.30 **Torkel Klingberg, Stockholm**
Training and plasticity of working memory
- 10.00 **Gishlane Dehaene-Lambertz, Paris**
Nature and nurture in language acquisition
- 10.30 *Coffee*
- 11.00 **Angela Friederici, Leipzig**
The musical brain
- 11.30 **Fredrik Ullén, Stockholm**
Neural mechanisms of musical improvisation
- 12.00 DISCUSSION
Discussant: Ingemar Ernberg, Stockholm
- 12.30 *Lunch*

SESSION VI (OPEN FOR THE PUBLIC)

Lecture Hall: Jöns Jacob Berzelius

Chairs: **Hans Forssberg and Hugo Lagercrantz**

- 14.00 **Giacomo Rizzolatti, Parma**
The mirror neuron system in monkeys and humans
- 14.30 **Semir Zeki, London**
The neurobiology of hate and love
- 15.00 **Antonio Damasio, Los Angeles**
Emotion and consciousness
- 15.30 **Peter Gärdenfors, Lund**
The cultural brain
- 16.00 **END**

Organizing Committee

*Hans Forssberg
Hugo Lagercrantz
Arne Öhman
Ivanka Savic*

Scientific Advisory Board

*Jean-Pierre Changeux, Paris
Peter Gärdenfors, Lund
Kenneth Hugdahl, Bergen
Martin Ingvar, Stockholm
Eric Kandel, New York*

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Marie-Louise Nilsson
Linus Olson*
