



The Latin American school for education, cognitive and neural sciences

JAMES S. MCDONNELL FOUNDATION - UNIVERSIDAD DE CHILE

15/26 MARCH 2010

HOTEL KUNZA - SAN PEDRO DE ATACAMA, CHILE

→ **academic committee**

→ **school planning**

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→ **program****MONDAY, 15 MARCH**→ **10:00**

Reception & registration

Inauguration→ **18:00 - 18:30**

Welcome to the School.

John T. Bruer, *James S. MacDonnell Foundation***Inaugural conference**→ **18:30 - 19:30**

Attention and learning.

Michael Posner, *University of Oregon*→ **19:30 - 20:00**

Break

→ **20:00**

Welcome Dinner

TUESDAY, 16 MARCH→ **07:00 - 08:00**

Breakfast

→ **08:00 - 09:30**

Practice session: CNS methods.

Session 1[**Chairman:** Susan Fitzpatrick, *James S. MacDonnell Foundation***Assistant:** Sidarta Riberiro, *ELS International Institute of Neuroscience of Natal*)→ **09:45 - 10:00**Introduction. Susan Fitzpatrick, *James S. MacDonnell Foundation***General conference**→ **10:00 - 11:00**

Default network & learning.

Marc E. Raichle, *Washington University in St. Louis*→ **11:00 - 11:30**

Break

**Language & reading:
From speech to reading**→ **1:30 - 12:30**

Syntax and learning.

Luigi Rizzi, *Università di Siena*→ **2:30 - 14:00**

Lunch

→ **14:00 - 15:00**

Phonology and learning.

Marina Nespors, *Università di Milano Bicocca*→ **15:00 - 16:00**

Semantics and learning.

Gennaro Chierchia, *Harvard University*→ **16:00 - 16:30**

Break

→ **16:30 - 17:30**

Grammar in the brain.

Andrea C. Moro, *Università Vita-Salute San Raffaele*→ **17:30 - 19:00**

Journal club or Round table discussion (snack and drinks)

→ **19:00 - 20:00**

Guided Project preparation (snack and drinks)

→ **20:00**

Dinner

WEDNESDAY, 17 MARCH.→ **07:00 - 08:00**

Breakfast

→ **08:05 - 09:30**

Practice session: CNS methods.

Session 2[**Chairman:** Kathryn Hirsh-Pasek *Temple University.***Assistant:** Marcela Pena, *Universidad de Chile*]→ **09:45 - 10:00**

Introduction.

Kathryn Hirsh-Pasek, *Temple University***General conference**→ **10:00 - 11:00**

Bayesian inference in neural circuits: from insects to humans.

Alexandre Pouget, *University of Rochester*→ **11:00 - 11:30**

Break

Language & reading:

The case of second language learning

→ **11:30 - 12:30**

Language development supporting early reading.

Kathryn Hirsh-Pasek, *Temple University*→ **12:30 - 14:00**

Lunch

→ **14:00 - 15:00**

Learning strategies in bilinguals.

Janet F. Werker, *University of British Columbia*→ **15:00 - 16:00**

Do bilinguals learn better?

Jacques Mehler, *Scuola Internazionale Superiore di Studi Avanzati*→ **16:00 - 18:00**

Journal club or Round table discussion (snack and drinks)

→ **18:00 - 19:30**

Guided project preparation (snack and drinks)

→ **19:30**

Dinner

THURSDAY, 18 MARCH

→ 07:00 - 08:30
Breakfast

Session 3

(**Chairman:** Susan Goldin-Meadow, *University of Chicago*.
Assistant: Mariano Sigman, *Universidad de Buenos Aires, Argentina*)
→ 08:45 - 09:00
Introduction. Susan Goldin-Meadow, *University of Chicago*

General conference

→ 09:00 - 10:00
Non-verbal information supporting learning.
Susan Goldin-Meadow, *University of Chicago*
→ 10:00 - 10:30
Break

Language & reading:

Language beyond sounds

→ 10:30 - 11:30
How does early literacy help reading?
Judy DeLoache, *University of Virginia*
→ 11:30 - 12:30
How do pre-verbal deaf persons learn to read?
Daphne Bevalier, *University of Rochester*
→ 12:30 - 14:00
Lunch
→ 14:00 - 15:00
Improving learning opportunities: Practical issues.
Mark A. McDaniel, *Washington University in St. Louis*
→ 15:00 - 17:00
Journal club or Round table discussion (snack and drinks)
→ 17:00 - 19:00
Guided project preparation (snack and drinks)
→ 19:00 - 19:30
Break

→ 19:30
Dinner

FRIDAY, 19 MARCH

→ 07:00 - 08:30
Breakfast

Session 4

(**Chairman:** Bruce McCandliss, *Vanderbilt University*.
Assistant: Marcela Pena, *Universidad de Chile*)
→ 08:45 - 09:00
Introduction.
Bruce McCandliss, *Vanderbilt University*

General conference

→ 09:00 - 10:00
Think, understand and explain in learning.
Frank C. Keil, *Yale University*
→ 10:00 - 10:30
Break

Language & Reading:

The reading brain: Structural constraints and plasticity

→ 10:30 - 11:30
Brain structural constraints for learning: Good and poor readers.
Ghislaine Dehaene-Lambertz, *INSERM-CEA Cognitive Neuroimaging Unit*
→ 11:30 - 12:30
Reading in the brain.
Bruce McCandliss, *Vanderbilt University*
→ 12:30 - 14:00
Lunch
→ 14:00 - 15:00
How does brain research help reading in Dyslexia?
Albert M. Galaburda, *Harvard University*
→ 15:00 - 16:00
Children's social cognition and classroom learning: Cultural differences.
Kristi Lockhart, *Yale University*
→ 16:00 - 16:30
Break
→ 16:30 - 18:00
Journal club or Round table discussion (snack and drinks)
→ 18:00 - 19:30
Guided project preparation (snack and drinks)

→ 19:30
Dinner

MONDAY, 22 MARCH

→ 07:00 - 08:30
Breakfast

Session 4

(**Chairman:** Kenneth R. Koedinger, *Carnegie-Mellon University*.
Assistant: Mariano Sigman, *Universidad de Buenos Aires*)
→ 08:45 - 09:00
Introduction.
Kenneth R. Koedinger, *Carnegie-Mellon University*

General conference

→ 09:00 - 10:00
The learning curve.
Charles R. Gallistel, *Rutgers University*
→ 10:00 - 10:30
Break

Math & reasoning learning math:

from early concepts to educational interventions

→ 10:30 - 11:30
How do children learn math?
Robert S. Siegler, *Carnegie-Mellon University*
→ 11:30 - 12:30
Brain based models of math learning.
Stanislas Dehaene, *INSERM-CEA Cognitive Neuroimaging Unit*
→ 12:30 - 14:00
Lunch
→ 14:00 - 15:00
Technologies helping learning: Math tutors.
Kenneth R. Koedinger, *Carnegie-Mellon University*
→ 15:00 - 17:00
Journal club or Round table discussion (snack and drinks)
→ 18:00 - 19:30
Guided project preparation (snack and drinks)

→ 19:30
Dinner

TUESDAY, 23 MARCH

→ 07:00 - 08:00

Breakfast

→ 08:00 - 09:30

Practice session: CNS methods.

Session 6**(Chairman:** Roxana Moreno, *University of New Mexico*.**Assistant:** Mariano Sigman, *Universidad de Buenos Aires, Argentina*)

→ 09:45 - 10:00

Introduction. Roxana Moreno, *University of New Mexico***General conference**

→ 10:00 - 11:00

Mirror systems underpinning learning. Luciano Fadiga, *Università degli Studi di Ferrara*

→ 11:00 - 11:30

Break

Math & Reasoning:

From spontaneous to instructional concept learning

→ 11:30 - 12:30

The generative basis of natural number concepts. Rochel Gelman, *Rutgers University*

→ 12:30 - 14:00

Lunch

→ 14:00 - 15:00

Expertise: Potential implications for school learning. Isabel Gauthier, *Vanderbilt University*

→ 15:00 - 16:00

Visual metaphors for meaning making in mathematics.

Roxana Moreno, *University of New Mexico*

→ 16:00 - 18:00

Journal club or Round table discussion (snack and drinks)

→ 18:00 - 19:30

Guided project preparation (snack and drinks)

→ 19:30

Dinner

WEDNESDAY, 24 MARCH

→ 07:00 - 08:00

Breakfast

→ 08:00 - 09:30

Practice session: CNS methods.

Session 7**(Chairman:** Sidarta Ribeiro, *Instituto Internacional de Neurociências de Natal - Edmond e Lily Safra*)

→ 09:45- 10:00

Introduction.

Miguel A.L. Nicolelis, *Duke University***General conference**

→ 10:00 - 11:00

Learning with neural ensembles.

Miguel A.L. Nicolelis, *Duke University*

→ 11:00 - 12:00

Sleep, memory and learning.

Robert Stickgold, *Harvard University*

→ 12:00 - 12:30

Break

→ 12:30 - 14:00

Lunch

Math & Reasoning:

Math and reasoning development

→ 14:00 - 15:00

Educational role of early number representations.

Lisa Feigenson, *Johns Hopkins University*

→ 15:00 - 16:00

Early learning with probabilities.

Luca Bonatti, *Universidad de Barcelona*

→ 16:00 - 16:30

Break

→ 16:30 - 18:00

Journal club or Round table discussion (snack and drinks)

→ 18:00 - 19:30

Guided project preparation (snack and drinks)

→ 19:30

Dinner

THURSDAY, 25 MARCH

→ 07:00 - 08:30

Breakfast

Session 8:

Neuroscience and some specific school learning

(Chairman: Marcela Peña)

→ 08:45 - 09:00

Introduction.

Marcela Peña, *P. Universidad Católica de Chile & Universidad de Chile***Latin American projects on education**

→ 09:00 - 09:30

How do children learn?

Marcela Peña, *P. Univ. Católica de Chile & Univ. de Chile*

→ 09:30 - 10:00

Readiness.

Mariano Sigman, *Universidad de Buenos Aires*

→ 10:00 - 10:30

Learning consolidation.

Sidarta Ribeiro, *Instituto Internacional de Neurociências de Natal*

→ 10:30 - 11:00

Break

→ 11:00 - 12:30

Project presentation:

2 minutes per presentation + 1 question

→ 12:30 - 14:00

Lunch

→ 14:00 - 15:30

Project presentation:

2 minutes per presentation + 1 question

→ 15:30 - 16:00

Break

→ 16:00 - 17:30

Project discussion and comments

Closing conference:

→ 18:00 - 19:00

What about science education?

David Klahr, *Carnegie-Mellon University*

→ 19:00 - 19:30

Break

→ 19:30

Farewell Dinner

FRIDAY, 26 MARCH

Departure