





















Cortical Evolution 2026

June 15-17, 2026 - Bilbao, Spain

Organizers: Verónica Martínez Cerdeño, Fernando García Moreno, Elena Vecino & Stephen Noctor

Scientific Committee: John LR Rubenstein, Zoltan Molnar, Fernando García Moreno
Veronica Martínez Cerdeño & Stephen Noctor

Early Registration Deadline: April 15, 2026

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|---|---|
|  Boyan Bonev |  Leah Krubitzer |
|  Victor Borrell |  Madeline Lancaster |
|  Emiliano Bruner |  Paul Manger |
|  Silvia Cappello |  Suzana Herculano-Houzel |
|  Christine Charvet |  Zoltan Molnar |
|  Catherine Crockford |  Luis Puelles |
|  Alexandra de Sousa |  Nenad Sestan |
|  Frank Jacobs |  John LR Rubenstein |
|  Arnold Kriegstein |  Flora Vaccarino |
|  Fenna Krienen |  Christopher Walsh |

url: www.ventricular.org/corticalevolution26
Contact: vmartinezcerdeno@health.ucdavis.edu

Sponsors include:



Cortical Evolution 2026 will take place in the Bizkaia Aretoa Conf. Center Bilbao, Spain



Cortical Evolution Conference

Bizkaia Aretoa Conference Center, Bilbao, Spain

June 15 - 17, 2026

Monday, June 15th

- 8:00-9:00 AM: Registration
- 9:10-9:20 AM: Welcome from Euskal Herriko Unibertsitatea
- 9:20-9:30 AM: Introduction to Cortical Evolution 2026

Session 1: *Evolution, Development and Function*

Chair: Paul Manger

- 9:30-10:20 AM: Cajal Club Pinckney J. Harman Memorial Lecture
Zoltan Molnar
*Subcortical plate: A Transient Structure
with Lasting Impact on Evolution,
Circuit Assembly and Cognitive Functions*
- 10:30-11:00 AM: Coffee break
- 11:00-11:40 AM: Catherine Crockford
*Vocal utterance complexity in chimpanzees
has implications for language and
brain evolution theories*



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Monday, June 15th

Session 1 (continued): *Evolution, Development and Function*

Chair: Paul Manger

11:40-12:20 PM:

Arnold Kriegstein

*What human brain development can teach us
about disease, evolution, and human speech*

12:20-1:00 PM:

Leah Krubitzer

*Cortical areas involved in motor control
of the limbs: Plasticity within and across lifetimes*

1:00-3:00 PM:

Lunch



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Monday, June 15th

Session 2: *Cellular and Cognitive Evolution*

Chair: John Rubenstein

- 3:00-3:40 PM: Victor Borrell
Evolutionary convergence and divergence of cortical neurogenesis
- 3:40-4:20 PM: Flora Vaccarino
Reconstructing human development with induced pluripotent cells and somatic mutations
- 4:20-5:00 PM: Madeline Lancaster
Slow and steady wins the race: Delayed transition timing enables human-specific neural expansion
- 5:00-5:40 PM: Nenad Sestan
Development and evolution of cognitive networks: Exploring what makes us human
- 6:00-8:00 PM: Cocktails
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Tuesday, June 16th

Session 3: *Genetics, Epigenetics, and Patterning*

Chair: Nenad Sestan

- 9:00-9:40 AM: John Rubenstein
Morphogenetic patterning during regional and cell type specification in the embryonic basal ganglia
- 9:40-10:20 AM: Fenna Krienen
Spatial patterning of transcriptional and regulatory programs in the primate brain
- 10:30-11:00 AM: Coffee break
- 11:00-11:40 AM: Christopher Walsh
Genetic signatures of human cerebral cortex evolution
- 11:40-12:20 PM: Silvia Cappello
Post-translational Dynamics in Brain Evolution
- 12:20-1:00 PM: Boyan Bonev
Epigenetic Regulation of Human Brain Evolution
- 1:00-3:00 PM: Lunch



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Tuesday, June 16th

Session 3 (continued): *Genetics, Epigenetics, and Patterning*

Chair: Victor Borrell

3:00-3:40 PM: Frank Jacobs
Segmental duplications as a source for genetic innovation in human brain evolution

Short Talks Chair: Victor Borrell

3:40-4:00 PM: Chiaki Ohtaka-Maruyama
Dual evolutionary origins of mammalian subplate neurons

4:00-4:20 PM: Hiroshi Kawasaki
Formation, evolution and functional significance of cortical folds

4:20-4:40 PM: Oier Pastor-Alonso
Organization and molecular progression of neural progenitor cells in the developing human dentate gyrus

4:40-5:00 PM: Mark Noble
A functional single-cell atlas of Neanderthal variants in ancestralized human cerebral organoids

5:00-6:00 PM: Blitz Talks

6:00-7:00 PM: Poster Session

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Wednesday, June 17th

Session 4: *Neuroanatomical Form of the Human Brain*

Chair: Flora Vaccarino

9:00-9:40 AM:

Suzana Herculano-Houzel

Evolution of brain and body size in endotherms explained by self-limiting growth

9:40-10:20 AM:

Luis Puelles

Advances on the mouse limbic cortical ring (mesocortex): the pattern of thalamic connections

10:30-11:00 AM:

Coffee break

11:00-11:40 AM:

Paul Manger

Thalamic and cortical volumetric relationships: does thalamotype reveal corticotype in mammals?

11:40-12:20 PM:

Christine Charvet

Translating Time from multiple scales

12:20-1:00 PM:

Alexandra de Sousa

Energetic Constraints on Brain Organization

1:00-3:00 PM:

Lunch





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Wednesday, June 17th

Session 4 (continued): *Neuroanatomical Form of the Human Brain*

Chair: Fernando García Moreno

3:00-3:40 PM:

Emiliano Bruner

Network analysis, topological burden, and the form of the human brain

Short Talks Chair: Fernando García Moreno

3:40-4:00 PM:

Emily Casanova

Gene family expansions and their roles in early stages of nervous system evolution

4:00-4:20 PM:

Sara Jiménez

Sauropsid embryonic brains lack the mammalian temporal transcriptional program

4:20-4:40 PM:

Eirene Markenscoff Papadimitriou

Evolution of human cortical development via transposable element exaptation into novel cis-regulatory elements

4:40-5:00 PM:

Lucia Del-Valle-Anton

From development to regeneration: Single-cell multiome analysis of neural progenitors in the salamander pallium

5:00-6:00 PM:

Blitz Talks

6:00-6:30 PM:

Concluding Remarks

8:30 PM:

Closing Dinner

