



Constraints and Plasticity in Development and Evolution

Organisers: Thomas Lecuit / Denis Duboule

Zoom webinar
June 3 and 4, 2021

COLLÈGE
DE FRANCE
—1530—



June 3 and 4, 2021 Zoom webinar

Constraints and Plasticity in Development and Evolution

Organisers:

Thomas Lecuit, Collège de France, Paris
and IBDM, Aix-Marseille Université, France

Denis Duboule, Collège de France, Paris
and EPFL, Lausanne, Switzerland

Registration link: <http://bit.ly/CdF-Plasticity>

Thursday, June 3, 2021

14h00 Welcome and introduction to the meeting

14h05 Lluís Quintana-Murci

Collège de France and Institut Pasteur, Paris, France
Understanding Human Immunology through the Lens of Evolution

14h35 Detlev Arendt

European Molecular Biology Laboratory, Heidelberg, Germany
Building Bilaterian Brains: Variations on a Common Ground Plan

15h05 Liam Dolan

Gregor Mendel Institute, Vienna, Austria
De Novo Cell Polarisation and Directs Body Axis Formation in a Plant

15h35 Caroline Dean

John Innes Centre, Norwich, UK
*Adapting to Different Winters: Non-coding Transcripts
& Epigenetic Switches at F1c*

16h05 Break

16h20 Marie Manceau

Collège de France, Paris, France

Mechanisms Shaping Trends and Variation in Plumage Patterns

16h50 Naomi Moris

Crick Institute, London

Gastruloids: An in Vitro Model of Anteroposterior Axial Patterning in Early Embryo Development

17h20 Eric Siggia

Center for Studies in Physics and Biology, Rockefeller University and
Department of Physics, Cornell University, USA

Mathematics of Gene Regulatory Networks and Their Evolution

17h50 Natasza A. Kurpios

Department of Molecular Medicine, Cornell College of Veterinary
Medicine, Ithaca, USA

Adventures in LR Asymmetry: Transcriptional Control and Morphogenesis during Midgut Rotation

18h20 Claude Desplan

Department of Biology, New York University, USA

Neural Diversity: Stochasticity or Determinism?

Friday, June 4, 2021

14h00 Shigeru Kuratani

Laboratory for Evolutionary Morphology, RIKEN Center BDR, Kobe, Japan

Craniofacial Diversity in Early Evolution of Vertebrates

14h30 Laurent Keller

Department of Ecology and Evolution, University of Lausanne, Switzerland

Transpecies Polymorphisms Regulated by Supergenes

15h00 Stanislas Dehaene

Collège de France and the NeuroSpin Brain Imaging Center, Saclay, France

How We Learn: The Singularity of the Human Brain Compared to Other Monkeys and Machines

15h30 Elly Tanaka

Institute of Molecular Pathology, Vienna Biocenter, Austria

Self-Organization of Developmental Processes

16h00 Vikas Trivedi

European Molecular Biology Laboratory, Barcelona, Spain

Axial Organization in Animal Development: A Synthetic Approach

16h30 Break

16h45 Hopi Hoekstra

Harvard University/HHMI, Boston, USA

A Tale of Tails: Evolution and Development of Morphological Adaptation

17h15 Gunther Wagner

Yale University, USA

Stress Induced Evolutionary Innovation: A Mechanistic Model of Cell Type Origination

17h45 Olivier Pourquié

Department of Genetics, Harvard Medical School and Department
of Pathology, Brigham and Women's Hospital, Boston, USA

Deconstruction Human Muscle Development in Vitro

18h15 Lakshminarayanan Mahadevan

Harvard University, Boston, USA

Biophysical Models for Regulating Form and Dynamics

18h45 Nipam Patel

The Marine Biological Laboratory and the University of Chicago, USA

The Physics of Beauty: Structural Color in Butterflies



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