

MECHANISMS OF DEVELOPMENT IN PLANTS AND ANIMALS

A seminar series. June 1-10, 2015

Organisers: Vincent Laudet (vincent.laudet@ens-lyon.fr) and Pradeep Das (pradeep.das@ens-lyon.fr)

June 1st (Monday)

09.30 Introductory class on Darwin's abominable mystery: the origin of the flowering plants ([Scutt](#))

10.30 Introductory class on how Zebrafish regenerate their organs ([Jazwinska](#))

13.30 **CHARLIE SCUTT & MICHIEL VANDENBUSSCHE** (RDP, ENS-Lyon)

The evolution and diversity of floral regulatory gene networks

14.30 **ANNA JAZWINSKA** (Univ. Fribourg)

Stress is detrimental to heart regeneration in Zebrafish

June 2nd (Tuesday)

09.30 Introductory class on quantitative approaches to light perception of plants ([Fleck](#))

10.30 Introductory class on endocytic regulation of developmental signalling: the example of the Delta/Notch pathway ([Furthaeur](#))

13.30 **CHRISTIAN FLECK** (IRD, Montpellier)

Systematic analysis of how phytochrome B dimerization determines its specificity

14.30 **MAXIMILIAN FURTHAEUR** (Inst. Valrose, Nice)

The E3-Ubiquitin ligase Mindbomb plays a dual role in Zebrafish neural tube morphogenesis

June 3rd (Wednesday)

09.30 Introductory class on the functional significance of primary sensory neurons diversity ([Moqrich](#))

10.30 Introductory class on lateral root development in *Arabidopsis*: how to build a new meristem ([Laplaze](#))

13.30 **LAURENT LAPLAZE** (IRD, Montpellier)

Analyzing the gene regulatory network controlling lateral root development in Arabidopsis

14.30 **AZIZ MOQRICH** (IBDML, Marseille)

Role of Low Threshold MechanoReceptors (LTMRs) in pain chronicity

June 4th (Thursday)

09.30 Introductory class on transcriptional networks in development and evolution ([Merabet](#))

10.30 Introductory class on biophysical methods for the study of plant transcription factors ([Zubieta](#))

13.30 **CHLOE ZUBIETA** (CEA, Grenoble)

Structural insights into the function of the MADS Transcription Factors in flower development

14.30 **SAMIR MERABET** (IGFL, Lyon)

Inhibitory activities of short protein motifs in developmental interactomes

June 5th (Friday)

09.30 Introductory class on chromatin-based regulations during reproductive development ([Grimanelli](#))

10.30 Introductory class on collective migration of neural crest cells ([Mayor](#))

13.30 **DANIEL GRIMANELLI** (IRD, Montpellier)

Epigenome dynamics during reproduction in plants

14.30 **ROBERTO MAYOR** (University College London)

Physical forces controlling collective cell migration

Mechanisms of Development in Plants and Animals

June 8th (Monday)

09.30 Introductory class on lateral organ development in plants ([Heisler](#))

10.30 Introductory class on the sea anemone *Nematostella vectensis*: embryonic development, tools and questions ([Technau](#))

13.30 **Marcus Heisler** (EMBL, Heidelberg)

The organisation of Arabidopsis development by cell type boundaries

14.30 **Ulrich Technau** (Univ. Vienna)

The evolution of bilaterality and triploblasty: Insights from an outgroup

June 9th (Tuesday)

09.30 Introductory class on the importance of local auxin biosynthesis-transport-signaling for morphogenesis of reproductive organs and their derivatives ([Robert](#))

10.30 Introductory class on alternative model organisms in developmental biology: insights from the cephalochordate amphioxus ([Schubert](#))

13.30 **Helene Robert-Boisivon** (CEI Tech, Brno, Czech Rep)

Local auxin biosynthesis: a trigger for embryo patterning

14.30 **Michael Schubert** (Dev. Biol. Villefranche)

Retinoic acid signaling: from its evolutionary origin to its functional diversification

June 10th (Wednesday)

09.30 Introductory class on brown algae: unique models to study developmental processes at a billion-year scale ([Coelho](#))

10.30 Introductory class on establishing and maintaining a tissue with stem cells ([Tajbakhsh](#))

13.30 **Susana Coelho** (Roscoff Marine Station)

*Genetic control of reproductive development in the brown alga *Ectocarpus**

14.30 **Shahragim Tajbakhsh** (Institut Pasteur, Paris)

Making sense of heterogeneities in skeletal muscle stem cells

June 11th (Thursday)

09.30 Introductory class on regulation and function of the Hox genes during vertebrate embryogenesis ([Deschamps](#))

10.30 Introductory class on the genetic control and evolution of leaf shape ([Laufs](#))

13.30 **Jacqueline Deschamps** (Hubrecht Institute, Utrecht)

Molecular basis of initial Hox gene transcription in early mouse embryos

14.30 **Patrick Laufs** (INRA, Versailles, France)

Leaf morphogenesis in Arabidopsis: from genes to shape