

Mechanisms of Development in Plants and Animals

A seminar series (UE Europe)

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The course comprises **four 1-hour sessions daily**, including two **introductory classes** (held in the 'Amphi K' or 'Amphi I') and two **seminars** (in the **Salle des thèses**)

June 2nd (Monday)

09.30 Introductory class on the biophysics of growth in walled systems (**Braybrook**)

10.30 Introductory class on regeneration in vertebrates (**Begemann**)

13.30 **Siobhan Braybrook** (Cambridge, UK)

"Multiscale shape growth in plants"

14.30 **Gerrit Begemann** (U. Bayreuth, Germany)

"Retinoic acid controls various aspects of zebrafish fin regeneration"

June 3rd (Tuesday)

09.30 Introductory class on spatial modeling intercellular molecular interactions and mechanics (**Jönsson**)

10.30 Introductory class on somitogenesis and on amphioxus as a model system for evo-devo studies (**Bertrand**)

13.30 **Henrik Jönsson** (Cambridge, UK)

"Understanding plant shoot development - a computational morphodynamics approach"

14.30 **Stéphanie Bertrand** (Laboratoire Arago, Banyuls, France)

"Evolution of somitogenesis in the chordate lineage"

June 4th (Wednesday)

09.30 Introductory class on plant domestication and development (**Parcy**)

11.30 Introductory class on hydra and metazoan body axes (**Holstein**)

13.30 **Francois Parcy** (CEA, Grenoble, France)

"An integrated structural approach to flower development"

14.30 **Thomas Holstein** (U. Heidelberg, Germany)

"The Hydra organizer and the evolution of metazoan body axes"

June 5th (Thursday)

09.30 Introductory class on the genetics of the shoot meristem (**Lohmann**)

10.30 Introductory class on morphogenetic gradients in the Drosophila embryo (**Dostatni**)

13.30 **Jan Lohmann** (U. Heidelberg, Germany)

"A regulatory framework of plant stem cell control"

14.30 **Nathalie Dostatni** (Institut Curie, Paris, France)

"Transcriptional dynamics in the Drosophila embryo"

June 6th (Friday)

09.30 Introductory class on plant embryo development - morphogenesis in miniature (**Weijers**)

10.30 Introductory class on Gerris and evo-devo (**Khila**)

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- 13.30 **Dolf Weijers** (Wageningen U., Netherlands)
"Genetic control of growth and patterning in the plant embryo"
14.30 **Abderrhaman Khila** (IGFL, ENS Lyon)
"An integrative approach to the study of animal diversity"

June 9th (Monday) *National holiday*

June 10th (Tuesday)

- 09.30 Introductory class on the mechanisms of organ specification in flowers (**Wellmer**)
10.30 Introductory class: "From Gene to Force" (**Bellaïche**)
13.30 **Frank Wellmer** (Trinity College Dublin, Ireland)
"Repression of the leaf development program by floral organ identity factors"
14.30 **Yohanns Bellaïche** (Institut Curie, Paris, France)
"Epithelial tissue dynamics"

June 11th (Wednesday)

- 09.30 Introductory class on the evolution of plant body plans (**Harrison**)
10.30 Introductory class on left-right asymmetry (**Noselli**)
13.30 **Jill Harrison** (Cambridge, UK)
To be announced
14.30 **Stéphane Noselli** (Institut Valrose, Nice, France)
"Left-Right asymmetry in Drosophila"

June 12th (Thursday)

- 09.30 Introductory class on the genetic control and evolution of leaf shape (**Laufs**)
10.30 Introductory class on mechanics and morphogenesis (**Lenne**)
13.30 **Patrick Laufs** (INRA, Versailles, France)
"Leaf morphogenesis in *Arabidopsis*, from genes to shape"
14.30 **Pierre-François Lenne** (IBDM, Marseille, France)
"Mechanics of cell contacts during tissue morphogenesis"