UE « CELLULAR ASPECTS OF THE DEVELOPMENT »

CONTACTS:

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Lectures will take place at the campus Université de Paris Cité (Bat Buffon – Room RH10A)

Monday 17 of October 2022 : Presentation of the different models

General introduction	Antoine Guichet and Christine Rampon	09h30 – 10h00
zebrafish	Marie Bréau (LBD)	10h00 – 12h00
Nematodes	Griselda Velez Aguilera (IJM)	13h30 – 15h30
Drosophila	Antoine Guichet (IJM)	15h40 – 17h40

Tuesday 18 of October 2022: Tissue Morphogenesis and Drosophila 1

Cellular competition and mechanical aspects of cell death	Romain Levayer (Institut Pasteur)	09h30 –11h30
Germ line stem cells and stem cell niches	Jean Antoine Lepesant (Institut Jacques Monod)	14h00 –16h00

Wednesday 19 of October 2022: Tissue Morphogenesis and Drosophila 2

Generation of neuron diversity	Nikos Konstantinides (Institut Jacques Monod)	09h30 –11h30
Formation of the respiratory organ: Morphogenesis and collective cell migration	Véronique Brodu (Institut Jacques Monod)	14h00 – 16h00
Presentation and discussion of articles		16h10-18h30 Mechanical Feedback through E-Cadherin Promotes Direction Sensing during Collective Cell Migration: **Group 1** Mechanical Function of the Nucleus in Force Generation during Epithelial Morphogenesis : **Group 2**

Thursday 20 of October 2022: Cytoskeleton and Polarity Nematodes

Actomyosin dynamics during cell morphogenesis, from molecule to tissue: a *C. elegans* perspective	François Robin (IBPS)	09h30 –11h30
Presentation and discussion of articles		11h10-12h30 Endocytosis of Hedgehog through Dispatched Regulates Long-Range Signaling: **Group 3**
Severing enzymes and microtubule dynamics	Nicolas Joly (Institut Jacques Monod)	14h00 – 16h00
Presentation and discussion of articles		16h10 – 18h30 Coupled oscillators coordinate collective germline growth: **Group 4** Microtubule Dynamics Scale with Cell Size to Set Spindle Length and Assembly Timing: **Group 5**

Friday 21 of October 2022 : Tissue Morphogenesis and Zebrafish

Presentation and discussion of articles		9h30 – 10h30 Optogenetic dissection of mitotic spindle positioning in vivo: **Group 6**
An experimental model to study nervous system development and human disease	Marcel Tawk (Hôpital Kremlin Bicêtre)	10h30-12h
Presentation and discussion of articles		12h00 – 13h00 Dynactin binding to tyrosinated microtubules promotes centrosome centration in *C. elegans* by enhancing dynein-mediated organelle transport: **Group 7**
Presentation and discussion of articles		14h30-18h00 Cell competition corrects noisy Wnt morphogen gradients to achieve robust patterning in the zebrafish embryo: **Group 8** Specified Neural Progenitors Sort to Form Sharp Domains after Noisy Shh Signaling: **Group 9** Smad4 controls signaling robustness and morphogenesis by differentially contributing to the Nodal and BMP pathways : **Group 10**