

4th workshop in *Mechanobiology and Physics of Life* in Lyon
Monday January 28th, 2019, Amphi Mérieux, ENS de Lyon

SCIENTIFIC PROGRAM

09h00-09h20 Welcome, coffee

09h20-9h30 Opening

Session “From cells to tissue and development 1”

09h30 -10h15 **Keynote: Pierre-François LENNE** IBDM, Marseille
Shaping cell contacts during tissue morphogenesis

10h15-10h30 **Olivier COCHET-ESCARTIN** ILM, Lyon
Physical mechanisms driving cell sorting in Hydra regeneration

10h30-10h45 **Catherine QUILLIET** LiPhy, Grenoble
Mechanics in Drosophila during early gastrulation

10h45-11h15 Coffee break

Session “From cells to tissue and development 2”

11h15-11h30 **Séverine URDY** IGFL, Lyon
Quantification of the cell behaviors involved in the development and regeneration of the limb epithelium of the crustacean Parhyale hawaiiensis

11h30-11h45 **Bruno LEGGIO** RDP, Lyon
Reproducible epidermal morphogenesis in ascidians: an active-reactive mechanical model

11h45-12h00 **Erwan TINTURIER** PIAF, Clermont-Ferrand
Sollicitations mécaniques et transport de l'information à longue distance chez les plantes

12h00-12h30 Poster teaser

12h30 -14h30 Lunch and Poster session

Session “Cells and Subcellular Mechanics”

14h30-14h45 **Karin JOHN** LiPhy, Grenoble
Lattice defects induce microtubule self-renewal

14h45-15h00 **Marie DELATTRE** LBMC, Lyon
Evolution of mitotic spindle behavior and mechanics in nematode embryos

15h00-15h15 **Amaris GUEVARA** IAB, Grenoble
Deciphering spatio-temporal signaling between BMP receptor and Integrin by optogenetics

15h15-15h30 **Pol GRASLAND-MONGRAIN** Laboratoire Physique ENS de Lyon
Cellquake elastography: applying shear wave elastography on single cells

15h30-16h00 Coffee break

Session “Pathologies and cancer”

16h-16h15 **Sylvain LEFORT** CRCL, Lyon
BMP1B and JAK2/STAT3 inhibition targets BMP4-niche mediated leukemic stem cells that persist during CML remission

16h15-16h30 **Magalie FAIVRE** INL, Lyon
Mechanical signature of RBCs flowing out of a microfluidic constriction

16h30-17h15 **Keynote: Jan TRAAS** RDP, Lyon
Why leaves are flat ?

17h15-17h30 Closing remarks