PROGRAM – CIRCLE MEETING (Paris 2012)

Wednesday 02 May 2012

19:00-21:00  Welcome
Chez Marie, Institut Curie
12, rue Lhomond

Thursday 03 May 2012

08:50 – 09:00  Introduction by Jean-François Joanny

Session 1, Chair: Matthias Bussonnier

09:00 – 09:20  Andrew Mugler, AMOLF
Divide and conquer: the signaling benefit of spatial partitioning

09:20 – 9:40  Justus Fuesers, EMBL
From single cells to tissue dynamics

09:40 – 10:00  André Scholich, MPIPKS
Beat and swim of the axoneme

10:00 – 10:20  Volker Bormuth, Institut Curie
Transduction-channel dynamics provides an intrinsic source of friction to
the hair-cell bundle.

10 :20 – 10 :40  Jose Alvarado, AMOLF
Connectivity transmits myosin pulling-forces over long distances

10 :40 – 11 :00  Manuel Worst, Saarbrücken
One Dimensional Evolution of DNA-Fragment Replication

11:00 – 11:30  Coffee break

Session 2, Chair: Jose Alvarado

11:30 – 11:50  Jochen Schneider, MPIPKS,
Role of cortex mechanics for the stability of cytokinesis

11 :50 – 12 :10  Joël Lemière, Institut Curie
Study of endocytosis mechanisms on an experimental system that mimics
a cell

12 :10 – 12 :30  Björn Stuhrmann, AMOLF
Nonequilibrium fluctuations of a remodeling in vitro cytoskeleton

12:30 – 14:00  Lunch

Session 3, Chair: David Zwicker

14:00 – 14:20  Magdalena Preciado Lopez, AMOLF
Dynamic crosstalk between actin and microtubules in vitro

14:20 – 14:40  Alexander Dreher, Saarbrücken
Spontaneous actin waves and their possible role for cell migration

14:40 – 15:00  Alexandar Necakov, EMBL
A role for endocytosis during early embryo development.

15:00 – 15:20  Maryam Aliee, MPIPKS
Mechanics of the dorsoventral compartment boundary in the developing
fly wing

15 :20 – 15 :40  François Quemeneur, Institut Curie
Lipid and protein mobility in fluctuating or geometrically confined
membranes

15 :40 – 16 :00  Severine Affeldt, Institut Curie
Whole-genome duplication in early vertebrates favored the non-
adaptative expansion of “dangerous” gene repertoires

16:00 – 18:30  Coffee break + Poster session

18:30 – 19:30  Keynote lecture
Philippe Cluzel (Harvard University)
The code within the code: How bacteria use the degeneracy of the genetic
code to control protein synthesis in fluctuating environments

19:30 – 21:30  Buffet
Friday 04 May 2012

Session 4, Chair: Kasia Tarnawska

09:00 – 09:20 | Daria Bonazzi, Institut Curie
How do fission yeast cells become rod-shaped?

09:20 – 9:40 | Massimo Lai, EMBL
Spatial modelling of calcium signalling and synaptic plasticity in dendritic spines.

09:40 – 10:00 | Silvia Rohr, EMBL
Photoreception and photoreponse of Amphioxus

10:00 – 10:20 | Sebastian Fürhtauer, MPIPKS
Chiral Cortical Flows in C. elegans: How cells tell left from right.

10 :20 – 10 :40 | Pierre Fribourg, Institut Curie
Conformational changes at nanometrical resolution and in lipid membrane of BmrA, a transmembrane ABC transporter

10 :40 – 11 :00 | Noreen Walker, AMOLF
Growth homeostasis versus noisy protein production in bacterial cells

11:00 – 11:30 | Coffee break

Session 5, Chair: Magdalena Preciado Lopez

11:30 – 11:50 | Hervé Tulier, Institut Curie
Modeling the cell shape dynamics during cytokinesis.

11 :50 – 12 :10 | Stefan Günther, EMBL
Nuclei packing in the syncytium of early Drosophila melanogaster embryos

12 :10 – 12 :30 | Jöbin Gharakhani, MPIPKS
Segregation of Germ Granules Using a Liquid-Liquid Phase Transition, and the Implied Non-equilibrium Steady State

12:30 – 14:00 | Lunch

Session 6, Chair: Eva Wollrab

14:00 – 14:20 | Ioana Garlea, AMOLF
Modeling of actin filaments in confinement

14:20 – 14:40 | Pierre Recouvreux, AMOLF
Microtubule based transport of polarity factors

14:40 – 15:00 | Steffen Werner, MPIPKS
Schmidtea mediterranea - Masters of Scaling and Regeneration

15:00 – 15:20 | Marc Schenkelberger, Saarbrücken
“Equilibrium proofreading” of competitive DNA hybridization

The meeting is supported by:

FONDAATION
PIERRE-GILLES
DE GENNES
POUR LA RECHERCHE

l'innovation AUTREMENT