



# GRISBi

Groupement de Recherche  
Interdisciplinaire sur les  
Systèmes Biologiques

**5<sup>th</sup> GRISBI Meeting**  
**14<sup>th</sup> and 15<sup>th</sup> October 2013**  
at the Genopolys Amphitheater  
(114 rue de la Cardonille, Montpellier - Campus IGH and IGF)

## Program

### Monday October 14<sup>th</sup>

- **14h00-14h20: Arrival**
- **14h20-14h30: Welcome**
- **Session: “Molecular Systems I”**
  - 14h30-15h20: Fernando MORENO HERRERO (CNB, CSIC, Madrid)  
*Single molecule approaches to study double-stranded DNA break resection*
  - 15h20-15h40: Camille PREVEL (CRBM and IBMM)  
*Tools for detection and targeting CDK4/cyclin D - application to lung cancer, melanoma and lymphoma*
  - 15h40-16h00: Hussein NASRALLAH (CBS)  
*High-Speed AFM study of the dynamics of GM1 nanodomains diffusing within supported lipid bilayers*
  - 16h00-16h20: Nathalie DECLERCK (CBS)  
*Quantification and modeling of the stochastic activity of bacterial promoters at the single cell, single molecule level using fluorescence fluctuation microscopy*
- **16h20-16h50: Coffee break at Genopolys**
- **Session: “Modeling approaches I”**
  - 16h50-17h40: Gregory BATT (INRIA Paris-Rocquencourt)  
*Cells driven by computers: long-term model predictive control of gene expression in yeast*
  - 17h40-18h00: Partho SEN (DIMNP)  
*Kinetic modelling of glycerophospholipid metabolism in Plasmodium knowlesi revealed crucial steps and mode of regulation.*
  - 18h00-18h20: Luca CIANDRINI (DIMNP-L2C)  
*Quantifying gene expression at the level of translation*
- **19h00-22h00: Dinner Buffet and Poster Session at CBS**

## **Tuesday October 15<sup>th</sup>**

- **Session: “Modeling approaches II”**
  - 9h00-9h50: Igor KULIC (Institut Charles Sadron, Strasbourg)  
*Biofilament confotronics*
  - 9h50-10h10: Jean-Charles WALTER (L2C)  
*Winding properties of polymers: a model for single bio-macromolecules?*
  - 10h10-10h30: John PALMERI (L2C)  
*DNA under force*
- **10h30-11h00: Coffee break at Genopolys**
- **Session: “Molecular Systems II”**
  - 11h00-11h20: Simon CABELLO-AGUILAR (IEM):  
*Polynucleotides slow translocation and discrimination through  $\alpha$ -hemolysin inside a single track-etched nanopore designed by atomic layer deposition*
  - 11h20-11h40: Linnéa OLOFSSON-FILION (CBS):  
*Specific regulation of transition rates between active and inactive states of the metabotropic glutamate receptor defines agonist efficacy*
  - 11h40-12h00: Sathish RAMAKRISHNAN (L2C)  
*Mechanism of material specific peptides for optical biosensors*
  - 12h00-12h20: Diego CATTONI (CBS)  
*SpollIE mechanism of directional translocation involves target search coupled to sequence-dependent motor stimulation*
- **12h20-14h00: Lunch Buffet and Poster Session at CBS**
- **Session: “Cellular Systems I”**
  - 14h00-14h50: Aurelien BANCAUD (LAAS, Toulouse)  
*Conformation and dynamics of DNA in confined environments: cross-talk between chromosomes and polymers in nanofluidic channels*
  - 14h50-15h10: Antoine LE GALL (CBS)  
*Architecture and dynamics of the SopABC partition system of the F-plasmid in E.coli*
  - 15h10-15h30: Ouafa BENZINA (L2C)  
*Changes induced by peripheral nerve injury in the morphology and nanomechanics of sensory neurons*
- **15h30-16h00: Coffee break at Genopolys**
- **Session: “Cellular Systems II”**
  - 16h00-16h20: Gladys MASSIERA (L2C)  
*Malaria parasite preinvasion motility*
  - 16h20-16h40: Pierre-Yves COLLART DUTILLEUL (LBSN)  
*Adhesion and differentiation of mesenchymal stem cells of the dental pulp on porous silicon: optimization of pore size and surface functionalization*
  - 16h40-17h00: Christophe GOZE-BAC (L2C)  
*NMR imaging: instrumentation and applications*
- **17h00-17h05: Concluding Remarks and Greetings**

HOW TO REACH THE GENOPOLYS AMPHYTEATHER :



# GRISBi

# Numev

Groupement de Recherche  
Interdisciplinaire sur les  
Systèmes Biologiques



GENOPOLYS  
Campus Arnaud de Villeneuve  
141 rue de la cardonille  
34396 Montpellier cedex 5



#### Accès à GENOPOLYS:

Tram ligne 1, direction Mosson, arrêt Occitanie  
Bus ligne 6, direction Euromédecine, arrêt Occitanie

Coordonnées G.P.S.  
latitude: N 43° 38' 4"  
longitude: E 3° 50' 50"

## DINNER, LUNCH and POSTER SESSIONS

will take place at the Centre de Biochimie Structurale -  
CBS,  
near Genopolys Amphitheater