



60 ans du Laboratoire de Biochimie Théorique

9 – 11 avril 2019

Note: all presentations will take place in the main library (ground floor) and the coffee breaks just outside the library. The reception/dinner for Tuesday and Wednesday's lunch will be in the common room of the 3rd floor.

## Tuesday, April 9th

14h	Welcome and Introduction
14h10	Historical perspectives: the LBT from 1977 to 2007 Richard Lavery, IBCP Lyon
15h	The multiple faces of DNA simulations  Modesto Orozco, Univ. Barcelona (invited)
16h	Coffee Break
16h20	Constant pH coarse-grained simulations for RNA molecules Samuela Pasquali, Univ. Paris Descartes
16h45	Neuron-like networks between ribosomal proteins in the ribosome Youri Timsit, Institut Méditerranéen d'Océanologie, Marseille
17h10	DNA structure and its applications in high-throughput genome analysis <b>Remo Rohs</b> , Univ. Southern California
17h35	Molecular dynamics and normal mode analysis for structural and functional characterization of biomolecules  David Perahia, ENS Paris-Saclay
18h	On the role of chromatin geometry in epigenetic domain formation Marina Katava, IBPC
18h30	Reception and dinner

## Wednesday, April 10<sup>th</sup> (morning)

9h	Historical perspectives: the LBT from 2007 to 2016  Philippe Derreumaux, IBPC
9h50	The molecular dynamics of potassium channel permeation, selectivity and gating <b>Bert de Groot</b> , MPI Göttingen (invited)
10h50	Coffee Break
11h10	Navigating in the RNA World  Guillaume Stirnemann, IBPC
11h30	Theoretical studies of fireflies bioluminescence  Isabelle Navizet, Univ. Paris Est
11h55	Development, validation and applications of a polarizable molecular dynamics approach  Nohad Gresh, Sorbonne Université
12h20	Some perspectives from the non-academic world  Anne Dagallier, Sanofi
12h45	Lunch

## (afternoon)

14h15	Theoretical biochemistry: present and future of our lab Marc Baaden, IBPC
15h05	Integrative structural biology Michael Nilges, Institut Pasteur (invited)
16h05	Coffee Break
16h25	Modeling membrane proteins from mitochondria to synapse  Antoine Taly, IBPC
16h45	From Cryo-EM map to atomistic interpretation of the bacterial translational machinery  Emmanuel Giudice, Univ. Rennes
17h10	3-dimensional structure and genome: how to leave 3rd floor of IBPC and come back  Ingrid Lafontaine, IBPC

## Thursday, April 11<sup>th</sup>

nursday, April II''				
9h	From toy membrane peptide to membrane complexes: A long story initiated in LBT			
	Catherine Etchebest, Univ. Paris Diderot			
9h25	RESPIRE: Repository of Enhanced Structures of Proteins Involved in Red blood cell Environment Stéphane Téletchéa, Univ. Nantes			
9h50	m1A modification in tRNAs Carine Tisné, IBPC			
10h15	Ultrafast electron transfer in cryptochrome/photolyases  Fabien Cailliez, Univ. Paris Saclay			
10h40	Coffee Break			
11h	A distance geometry approach to determine the conformational space of flexible proteins from chemical shift measurements  Thérèse Malliavin, Institut Pasteur			
11h25	MD simulation combined to fragment based approach for protein-peptide complex structure prediction  Samuel Murail, Univ. Paris Diderot			
11h50	Udock: a free interactive protein docking system Benjamin Boyer, CNAM			
12h15	Multi-scale simulations yield insight into protein diffusion and stability in crowded environments  Stepan Timr, IBPC			
12h35	Conclusions and Farewell			

DNA strand by Freepik from www.flaticon.com All other images are courtesy of LBT members







