COST Action: Soft-Interactions in Biological and Biomimetic Self-Assemblies

7-13 septembre 2014, Saint-Malo (France)

Chairman: Franck Artzner and Maité Paternostre


ORGANISATION

The school took place over five days with four days filled with 3 over 2 hours, each course being associated with a workshop on the same day. Each speaker had to expose the concepts underlying the study(s) system(s) submitted(s), making a significant part in the methodologies employed and seeking to identify the associated experimental lock(s). Parallel workshops organized every night thinking about the themes presented by each of the speakers of the day then allowed to deepen the concepts and better understand the methods. Our goal has been to foster an informal but constructive exchange (orchestrated by a moderator who had an active role to initiate and facilitate the workshop) between groups of participants and speakers. Our experience is that it is such exchanges are likely to trigger experimental and conceptual advances and collaborations between communities. These discussions were freely extended during the events organized in the citadel of Saint-Malo and during the crossing of the Bay of Mont Saint Michel. All courses were provided to participants on a website dedicated to following the theme school.

An rating sheet was given to each of the 40 participants. We received 20 evaluation forms including analysis and balance sheets were made (see below). Overall, participants were fully or largely met, and none have been disappointed. Regarding the speakers, the diversity of opinion highlights the diversity of the audience which included biologists, chemists and physical chemists as well.

12 Lecturers:
39 Trainees

15 young researchers and 24 senior researchers attended the meeting, stakeholders are at least three days left on the 5 school days. Researchers from all disciplines (physics, chemistry and biology) were represented.
Summer School Program

Monday, September 8th
8:00-8:30  Registration and coffee
8:30-8:45  Introduction: Stéphane Bressanelli, Franck Artzner & Maïté Paternostre
8:45-10:45 Class II membrane fusion proteins: different mechanism for cell-cell fusion in embryogenesis than in virus fusion, Felix Rey
10:45-11:00 Coffee break
11:00-13:00 Crystallography of interactions in the context of protein-sugar recognition, Mirjam Czjzek
13:00-14:30 Lunch in Grand Large
14:30-16:30 Peptide self-assemblies: structure, mechanisms and electrostatic, Franck Artzner & Maïté Paternostre
16:30-17:00 Coffee break
17:00-18:30 Discussions, chairman: Stéphane Bressanelli, Jeroen Cornelissen
19:00-22:00 Diner Grand Large

Tuesday, September 9th
8:30-10:30  Controlling the loading of protein cages, Jeroen Cornelissen
10:30-11:00 Coffee break
11:00-13:00 Peptide assembly from the bottom up: from the basics to new biomaterials, Dek Woolfson
13:00-14:30 Lunch in Grand Large
14:30-16:30 Biomacromolecular assemblies: the role of modeling and simulation, Richard Lavery
16:30-17:00 Coffee break
17:00-18:30 Discussions, chairman: Maïté Paternostre, Mirjam Czjzek
Free evening

Wednesday, September 10th: Social Day and Gala Diner
Departure for Mont Saint-Michel at 11:00
Thursday, September 11th
8:30-10:30  Structural and Molecular Biology of Type IV Secretion Systems, Gabriele Waksman
10:30-11:00 Coffee break
11:00-13:00 From Hydrophobic attraction to hydration repulsion: Simulation approaches, Roland Netz
13:00-14:30 Lunch in Grand Large
14:30-16:30 Protein self-assemblies: actin and tubulin, Marie-France Carlier
16:30-17:00 Coffee break
17:00-18:30 Discussions, chairman: Stéphane Bressanelli, Richard Lavery
19:00-22:00 Diner Grand Large

Friday, September 12th
8:30-10:30  Structure of Biological Membranes: roles and origins of supra-molecular assemblies, James Sturgis
10:30-11:00 Coffee break
11:00-13:00 Conventional and less conventional interaction modes in biomolecular systems. An atomistic view, Pascal Auffinger
13:00-14:30 Lunch in Grand Large
14:30-15:30 Inorganic self-assemblies: from nano to meso-crystals, Jacques Livage
15:30-16:00 Coffee break
16:00-17:30 Discussions, chairman: Stéphane Bressanelli, Franck Artzner
Free evening
Evaluation

We want to know your opinion on the quality of the training. Thank you for taking a few minutes to complete this form.

Bilan des 20 fiches d'évaluation obtenues à la suite de l'école thématique

What overall rating do you think of this School-Researcher?

- Satisfied: 75%
- Rather: 25%
- Rather Disappointed: 0%
- Disappointed: 0%

1 – Compared to your expectations, are the announced objectives met?
☐ yes, entirely 75% ☐ in major part 25% ☐ Partly ☐ Not at all

2 – The educational organization
Appreciations on:

- The program as a whole ................................................................. 4 3 2 1
- The equilibrium between courses and discussions ........................................ 4 3 2 1
- The scientific animation of the school ......................................................... 4 3 2 1
- The duration of the school ....................................................................... 4 3 2 1

orticacy
Satisfied 70%
Rather 30%
Rather Disappointed 0%
* Disappointed 0%

3 – Accomodation and Organization
Appreciations on:

- The host organization (accomodation and meals) ......................................... 4 3 2 1
- The place of the congress ........................................................................... 4 3 2 1

4 – What course you most / least interested?

The most: J. livage (1), D. Woolfson (7), G. Waksman (2), J. Sturgis (3), R. Lavry (1), R. Netz (2), P. Auffinger (1)le – The less: R. Lavery (2) & M-F. Carlier (2)

5 – What special moment has promoted exchanges with the participants and professores?

- Discussions: 50%
- Evenings: 40%
- Meals: 65%
- Free Time: 65%

6 – Other comments