

“Structural Glycosciences”

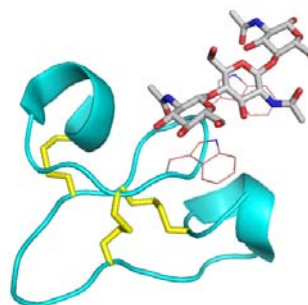
Winter Training School **COST Action CM1102 : MultiGlycoNano** « Multivalent Glycosystems for Nanoscience »

4 – 6 november 2013, Grenoble, France

Venue: ESRF / ILL / IBS / CERMAV

Description:

This workshop will give young scientists an integrative/multidisciplinary overview of the different approaches that can be used for characterizing the three-dimensional structures of glycans, glycoconjugates or protein/glycoconjugates complexes. Current methods for analyzing the kinetics and thermodynamics of the interaction between a glycoconjugate and a protein receptor will also be covered.



Scientific committee:

Anne Imberty, CERMAV
 Serge Pérez, CERMAV
 Franck Fieschi, IBS

Organizing committee:

Annabelle Varrot, Aymeric Audfray, Julie Arnaud, João Ribeiro (CERMAV)
 Olivier Renaudet, Baptiste Thomas, Marie Monestier (DCM)
 Antoine Royant, Isabelle Petit-Hartlein, Vanessa Porkolab, Michel Thépaut (IBS)



ITMO Bases moléculaires
 et structurales du vivant

PROGRAM:

Monday 4th November 2013 / CERMAV (University Campus)

13:30- **Registration**

Chairman : Christelle Breton

14:00-14:15 - **Opening and Welcome**

Christelle Breton: Opening as head of the Grenoble doctoral school in Chemistry and Life Science

Bruce Turnbull: COST-CM1102 Chair

Anne Imberty: Local organization

14:15-14:45 - **Lecture 1.** Introduction – Protein carbohydrate interactions

Anne Imberty (CERMAV-Grenoble)

14:45-15:30- **Lecture 2.** : Protein-sugar Interaction: Surface Plasmon Resonance

Nicole Thielens (IBS-Grenoble)

15:30-16:30 - **Attendees Flash Presentations (3 minutes / 3 slides) 15 presentations**

16:30-16:50 - **Coffee break**

16:50-17:35 - **Lecture 3.** Protein-carbohydrate interactions: Isothermal Micro-Calorimetry

Bruce Turnbull (University of Leeds)

17:35-18:45 - **Attendees Flash Presentations (3 minutes / 3 slides) 20 presentations**

19:30 - **Get together (wine and cheese party) with all participants**

Tuesday 5th November 2013 / Site of ESRF-ILL-IBS

8:30 Meeting at ILL/ESRF gate for passing security check **(so 8H30 SHARP !!)**

Chairman: Annabelle Varrot

8:45 - **Welcome by Andrew Harrison** (Director of ILL) / Amphitheater Chadwick

9:00-9:30 - **Lecture 4.** Monosaccharides to polysaccharides – structural introduction

Serge Pérez (CERMAV-Grenoble)

09:30-10:15 - **Lecture 5.** X-ray crystallography or protein/carbohydrate complexes

Bauke W. Dijkstra (ESRF- Grenoble)

10:15-10:35 - **Coffee break**

10:35-11:15 - **Lecture 6.** Kinetic crystallography of a glycoenzyme

Antoine Royant (IBS- Grenoble)

11:15-11:55 - **Lecture 7.** Application of neutron diffraction to glycosciences

Trevor Forsyth (ILL-Grenoble)

12:00-12:10 - **Group photo**

12:10-13:00 - **Buffet lunch /IBS2**

13:00-15:20 - **Practicals at IBS2 (to be chosen in a list of 5 possibilities)**

15:30-18:00 - **Visit of ESRF (with beam line to be chosen in a list of 3 possibilities)**

Wednesday 6th November 2013 / CERMAV (University Campus)

Chairman : Olivier Renaudet

9:00-9:45 - **Lecture 8.** Molecular modeling: building carbohydrate and docking in receptor sites
Alessandra Nurisso. (University of Geneva)

9:45-10:30 - **Lecture 9.** NMR as tool to decipher "sweet " words between microbe and host
Antonio Molinaro (University of Napoli)

10:30-10:55 - **Coffee break**

10:55-11:40 - **Lecture 10.** Integrated approaches: The fascinating DC-SIGN story
Franck Fieschi (IBS – Grenoble)

11:40-12:30 - **Questions and discussion**

12:30-13:00 - **Evaluation of workshop**

13:15-14:15 - **Lunch (Cafeteria near CERMAV)**

14:15-14:45 - **Handling of attendance certificates / Concluding remarks**