

## “Structural Glycosciences”

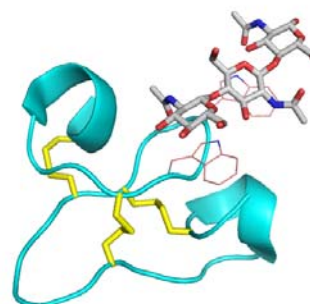
### Winter Training School **COST Action CM1102 : MultiGlycoNano** « Multivalent Glycosystems for Nanoscience »

4 – 6 november 2013, Grenoble, France

Venue: ESRF / ILL / IBS / CERMAV

#### Description:

This workshop will give young scientists an integrative/multidisciplinary 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.



**Deadline for applications (CV + motivation letter from candidate): 10<sup>h</sup> Sept 2013**  
**Priority: PhD students, young postdocs.**

Registration and contact: [anne.imberty@cermav.cnrs.fr](mailto:anne.imberty@cermav.cnrs.fr)

#### Scientific committee:

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

#### Organizing committee:

Annabelle Varrot, CERMAV  
Olivier Renaudet, DCM  
Antoine Royant, IBS  
(to be added: Grenoble post-doc and students willing to help)

## **PROGRAMME:**

---

### **Monday 4<sup>th</sup> November 2013 / CERMAV (University Campus)**

13:45- **Registration**

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)**

15:30-16:15- **Coffee break**

16:15-17:00- **Lecture 3.** Protein-carbohydrate interactions: Isothermal Micro-Calorimetry

**Bruce Turnbull (University of Leeds)**

17:00-18:30- **Attendee Flash Presentations** (short 5 minute presentations)

19:30- **Get together or dinner with all participants**

---

### **Tuesday 5<sup>th</sup> November 2013 / Site of ESRF-ILL-IBS**

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

**Serge Pérez (CERMAV-Grenoble)**

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

**Bauke W. Dijkstra (ESRF- Grenoble)**

10:15-11:00- **Lecture 6.** Kinetic crystallography of glycoenzyme

**Antoine Royant (IBS- Grenoble)**

11:00-11:20- **Coffee break**

11:20-12:05- **Lecture 7.** Application of neutron diffraction to glycosciences

**Trevor Rutherford (ILL-Grenoble)**

12:05- 12:30- **Questions and discussion**

12:30-14:00- **Lunch (cafeteria ILL/ESRF)**

#### **14:00 – 18:30 Practicals (visits and/or demonstration)**

2 groups of 12 participants

14:00-16:00. Practicals/ Group 1 : ESRF (presentation in the hall + split in 2 groups for visiting beam lines) / Group 2 : IBS 2 (presentation in the hall + split in 2/3 groups for visiting SPR)

16:00-16:15- **Coffee break and change of location**

16:15-18:15. Practicals/ with Exchange of group -

**Free evening**

---

**Wednesday 6<sup>th</sup> November 2013 / CERMAV (University Campus)**

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 of protein/carbohydrate complexes  
**Tony Molinaro (University of Napoli)**

10:30-11:45- **Coffee break**

11:45-12:30- **Lecture 10.** Integrated approaches: The fascinating DC-SIGN story  
**Franck Fieschi (IBS – Grenoble)**

12:35-13:00- **Questions and discussion**

13:00-14:00- **Lunch (Cafeteria near CERMAV)**

14h : Delivering « Certificates of attendance » + Group picture.

15h : Evaluation / Concluding remarks