COST CM 1102 Winter Training School - 4-6 Nov 2013, Grenoble, France

The purpose of the working school was to 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. Plans were to also cover the current methods for analyzing the kinetics and thermodynamics of the interaction between a glycoconjugate and a protein receptor or an enzyme. Illustrations were to be provided in health-related domains of application.

The meeting hosted 46 young scientists from 15 different countries that are part of COST Action CM1102. 13 trainers from 4 countries were involved in the lectures and practical organisation.

The training school lasted three days and was held in different locations of Grenoble in order to give the opportunity to visit the different campuses in Grenoble.

- *Day 1.* After a general presentation of the University Joseph Fourier and the doctoral school "Chemistry and Life Sciences", the first session was held at Centre de Recherche sur les Macromolécules Végétales. It introduced the young researchers to the molecular basis of protein-carbohydrate interaction and to some of the biophysical methods to quantify them. Two sessions of flash presentations were included. The day was concluded by a get-together party in a wine bar with great social interaction between all participants.

- *Day 2.* The morning session was conducted at the Institut Laue Langevin, an international research centre for neutron diffraction that was presented by its scientific director. The afternoon session was devoted to practicals and visits. Practicals were organised in the new building of Institut de Biologie Structurale. The participants could follow demonstration on five different technics, i.e. Surface Plasmon Resonance, Titration Microcalorimetry, Nuclear Magnetic Resonance, Molecular Modelling and Analytical Centrifugation. The second part of the afternoon included a visit of the European Synchrotron Research Facility with a general presentation and a visit of the ring where experiments are conducted. The group was divided in order to visit experimental set-up on different beam-lines

- ***Day 3***. In the last session, the structural approach was completed by lectures about molecular modeling and nuclear magnetic resonance. A final lecture illustrated the integrated use of all presented methods for the case study of a human lectin of biological importance in infection process. Some time was saved for discussion about the workshop and for evaluation by participants.