

## Users Group Document - Autrans 2009

Michael Assfalg, Henriette Molinari

The EU-NMR user group was established in 2007 with the aim to monitor the performance of the infrastructure and identify the user requests/needs and duties to improve constantly the quality of the access, spread good practice and *transfer new knowledge* in the NMR field.

New issues emerging among users are related to the *participation*, together with the IR management, in the construction of larger European schemes and in the enhancement of the impact of the NMR community in the field of life science.

In the first year of activity the main focus of the users action was related to assessing and providing suggestions for improvement of the quality of access to NMR infrastructures and grow up as an organized group with impact on infrastructure management.

The tools employed were

- specific questionnaires circulating among users which were analysed and elaborated within the framework of users group meeting, held separately from the IR management, in the occasion of the annual EU meeting.
- the organisation of the intranet questionnaires, filled by the users after each access, which were automatically redirected to the users representative.

It was additionally established that a user document should be produced each year to be discussed at the round table in the presence of EU management and EU officers.

The second users annual meeting registered the generalised users opinion that access had greatly improved in response to the growing strength of the user community.

A visible result of the increased organisation and growth of the users group was the possibility of being present in Bruxelles at a meeting organised between the EU officers and the Infrastructure management, to discuss the possible support to a proposal advanced by the users group.

This proposal concerned the possibility of integrating into the present and future actions support and training for sample preparation.

All the steps involved in NMR sample preparation represent “routine work preliminary to NMR analysis” and, as such, may be taken into account in the integrated actions.

However a clear reply along this line, i.e. *whether the infrastructure can support a limited number of projects dealing with sample preparations* was not received.

Another “unanswered” request advanced last year was that *users should be assisted in the organisation of their own home page as an instrument for exchange of knowledge, expertise and experience.*

The third user meeting discussion has been mainly focussed on issues considered to be a constitutive part of the future negotiations for NMR access, and on the evaluation of the users scientific production and impact during the present scheme.

## Agenda of the meeting

- a) Sample preparation support
- b) Impact of science produced in Europe based on TA access
- c) Discussion of guide-lines for equilibrated access
- d) Structure of the users group and role in the research infrastructure consortium
- e) Support for users activities organisation

### a) Sample preparation support

There was no follow up to the previous request of support for NMR enriched sample preparation. The users believe that transfer of knowledge and expertise concerning the production of complex biological samples should be provided by the facilities

#### b) Impact of science produced in Europe based on TA access

The users recognize that the NMR access through infrastructure has become more and more essential for the new developments of research, and that providing self-evaluation will strengthen their visibility and make a broader scientific community aware of the increased relevance of NMR methods and applications.

Indeed the NMR infrastructures depend on the success of users' scientific work. Therefore assessing the quality of the users performance and how the research has changed/improved during the years thanks to NMR access is essential for providing the EU with a deliverable of the fallout of investment in the centralized infrastructures.

A preliminary analysis of users work has been done in order to start a process of review of scientific production. At this time the review was based only on publications. The results shown, even if partial, are a first quantitative indication of the fields where there was impact of research.

Out of 140 PI (july 2008), data were collected for 74 PI

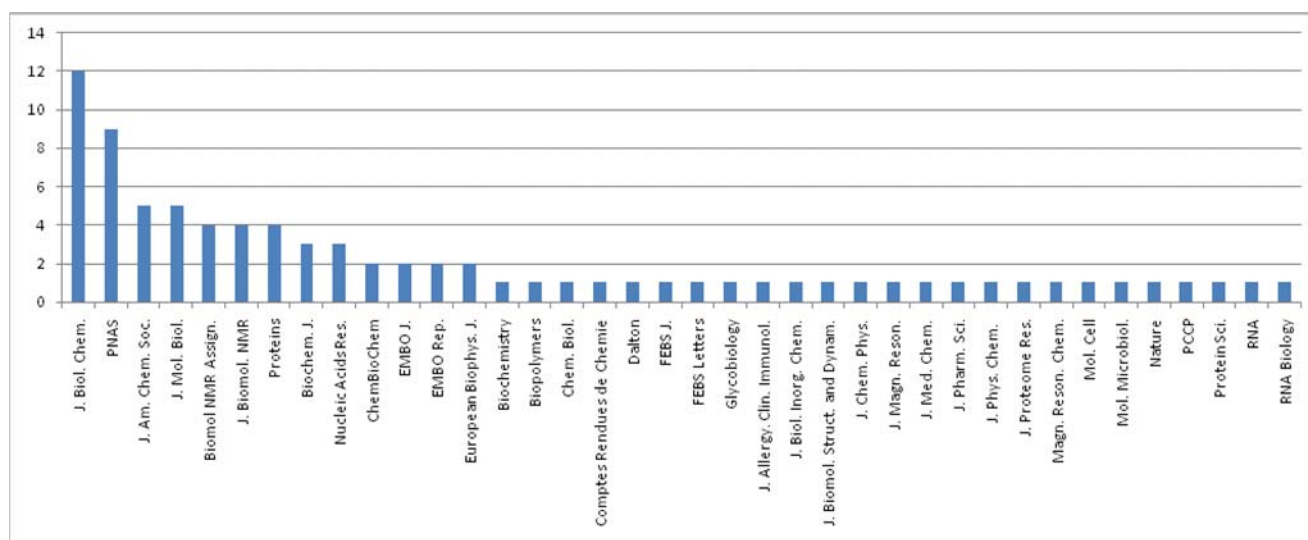
Nearly all the users have acknowledged the IR in their papers/presentations and declare that they use IR not only for hardware but for the expertise present, which of course means transfer of knowledge.

137 papers were presented by 74 PI (71 submitted or in preparation)- the great majority of publications was referred to 2008.

The following scheme is shown as example of the analysis performed:

PI	Ack	Exp	Papers	Oral presentation	Posters
74	57	58	137	60	93
Zidek	Y	Y			V. Motackova, M. Kubickova, L. Zidek, V. Sklenar, M. Svec, M. Kozisek, J. Konvalinka, <b>NMR study of a single-stranded DNA binding to the C-terminal domain of retroviral proteinase</b> , XXIIIRD ICMRBS held in San Diego, California, USA,
Zanger			project just started		
Wirmer	Y	Y	Silvers, Robert; Heinicke, Friederike; Tachibana, Hideki; Segawa, Shin-ichi; Witthaker, Sara; Günther, Ulrich; Wirmer-Bartoschek, Julia; Schwalbe, Harald, <b>Dynamical studies of hen egg white lysozyme variants with a single native disulfide bridge. manuscript in preparation</b>		
Williamson	Y	Y	M. P. Williamson, T. G. McCormick, C. L. Nance and W. T. Shearer, <b>Epigallocatechin gallate, the main polyphenol in green tea, binds to the T cell receptor CD4: Potential for HIV-1 therapy</b> , <i>J. Allergy Clin. Immunol.</i> <b>2006</b> , <b>118</b> 1369-1374. E.C.Ratcliffe, I.Ng, R.Tunncliffe, M.R.Jones, M.P.Williamson and C.N. Hunter <b>The role of pufX in assembly of the bacterial light-harvesting antenna complex</b> , in preparation.		
Werner	Y	Y	Cox, C.L., Findlow I.S., Hagan R., Werner, J.M. <b>Solution structure and interactions of vinculin tail</b> , <b>manuscript in preparation</b> , 2009 Pecqueur, L., Stuart, J., Sticht, J., Bartonova, V., Findlow, I.S., Kräusslich,	<b>Proteins going soft: Structure and interactions</b> , Jörn Werner, University of Cologne, Germany, 2008	<b>Mapping interdomain energy landscapes: A novel method for the determination of domain-domain orientations.</b> John W Stuart, Martin Zacharias and Jörn M. Werner, ICMRBS, San Diego, USA, 2008
			H.G., & Werner, J.M. <b>Structural plasticity of the HIV-1 capsid</b> , <b>manuscript in preparation</b> 2009	<b>Structural modulation in focal adhesions</b> , Jörn Werner, University of Leipzig, Germany, 2008	<b>Fit for purpose: Comparison of solid state, solution and crystal data of protein L</b> . Michael Knight , Philip Williamson , Jon Cooper, Malcolm Levitt and Jörn M. Werner, ICMRBS, San Diego, USA, 2008
				<b>Protein Plasticity.</b> Jörn Werner, Neuroscience day at University of Southampton, UK, 2008	<b>Structural determinants of calmodulin binding to the intracellular C-terminal domain of the metabotropic glutamate receptor 7A.</b> Stuart Findlow, Astrid Scheschonka, Vincent O'Connor, Heinrich Betz and Jörn M. Werner, EU-NMR, Frankfurt, Germany, 2008
				<b>Vinculin's Tale: A Tie and a Peg or How to Nail Jelly to a Wall.</b> Clare Cox, Stuart Findlow, David Critchley and Jörn M. Werner, SWSBC, Portsmouth, UK, 2007	<b>Investigation of a novel maturation and assembly inhibitor of HIV-1.</b> Pecqueur L., Sticht J., Bartonova V., Knight M., Findlow S., Krausslich H. G., & Werner J.M. SWSBC, Portsmouth UK, 2007

## Some statistics on the journal distribution



Even if the output was considered satisfactory it was realized that other indicators should be taken into account to have a more complete picture of the scientific impact.

For example the description of the increased complexity of projects made possible by the access to NMR Infrastructure, or the synergic effect of other funding schemes providing complementary support.

A suggested way to implement this monitoring action was to work together with the Infrastructure management to produce *an annual review of results* which should be made *accessible to users*. This document should include, if possible, a brief summary of the state of advancement of each ongoing project.

*This action serves the goal to provide users with an updated global vision of the network*

c) Discussion of guide-lines for equilibrated access

The fundamental role of the evaluation process has been recognised. Within this framework it was agreed that:

Access of new users should be encouraged, but not at the expense of the quality of the projects.

A more flexible access scheme is desirable: in principle the possibility should be given to a PI to apply for more than one project as well as the possibility of multiple access, if necessary, within the same project

This point should be necessarily integrated in future actions.

d) Structure of the users group and role in the research infrastructure consortium

The users representatives should be renewed at the end of this year, and candidatures for nomination of possibly three representatives will be gathered during 2009.

It is clear now that the users group is becoming stronger and stronger and its management should be more organised: the following year discussion will be related on how to build an efficient internal structure.

A request is that the *users representatives should be involved* into the future:

Infrastructure management meetings

New proposal preparations and “negotiations” .

It is desirable that *support is received from EU or Infrastructures* in order to cover the management of defined users initiatives. Among these the users web page and secretarial work.

A shared point of view is that it is desirable to make Infrastructure access such a common practice to be recognized for example as available instrumentation in grant requests