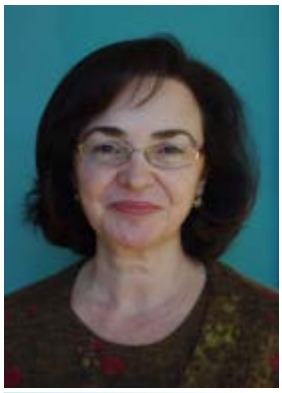
Interview with Dolores SOLIS

Right after obtaining the Bachelor's degree in Chemistry, I decided to get a Master's degree in Biochemistry in order to expand my career perspectives. For getting the degree, I had to carry out a research work and prepare a bachelor thesis. This is how I discovered the world of scientific research, and I have never left it behind since then! This is a really exciting and captivating job, constantly demanding a balanced combination of rationalism and creativity. Some moments of the scientific career can be very demanding, even frustrating, but to me it has been really worth the effort.



Dr. Dolores SOLIS
Instituto de Química-Física "Rocasolano"- Spanish National Research Council (CSIC) – Spain

What are you currently working on?

Our current work is focused on the characterization of the structural organization and ligand binding properties of lectins. These are carbohydrate-binding proteins that behave as efficient decoders of the biological information stored in cell glycans, that is, the "sugar code". Recognition of carbohydrates by lectins is central to many relevant biological and pathological processes, as the inflammation and immune responses and cancer. For these studies we use a variety of biochemical and biophysical techniques. In addition, we are also developing novel microarray-based approaches for the characterization of carbohydrate- or lectin-mediated interactions of relevance to health and disease.

Do you have a huge team working for you? How do you manage them all?

I think that managing a small group facilitates a close monitoring of the ongoing research and a continuous evaluation of the results. In this way, it is also easier to provide high-quality supervision to young researchers. Thus, I prefer to work with a relatively small team. Instead, we collaborate very closely with another team of similar size leaded by a senior researcher with a strong biophysical background. That is, our organization is horizontal rather than pyramidal, so that both groups equally benefit from a continuous exchange of knowledge and expertise.

Have you collaborated with industry before? What do you expect from it in the framework of the project?

We participated in a similar Marie Curie Training Network under the Sixth Framework Programme called DYNAMIC, which indeed could be considered the seed of DYNANO, but unfortunately in that occasion our group did not find the opportunity of establishing collaborations with the private sector partners. I am very confident that this time we will benefit from a profitable exchange of know-how, technical possibilities and experience for exploring innovative applications of already existing technologies or even for developing novel biosensors and/or methodologies. Indeed, some possibilities for collaboration have already been envisaged.

I have heard that you participate in another ITN. Does this change/feed your approach to the DYNANO project?

Yes, I hold the coordinator position in another ITN, GLYCOPHARM, which will start on November 1st this year. The focus of this project is placed on the sugar code, covering from basic (bio)chemical concepts to clinics. I believe that this is an extraordinary opportunity for building bridges between both networks and exploiting to the highest possible level their training and scientific potential. To this aim, I plan to organize a joint summer school next year in Madrid, at which researchers from the two networks will have the opportunity to meet and exchange experiences and ideas from different, complementary perspectives.

What do you think is the most satisfying part of this project?

I think that Marie Curie ITNs, in general, are a superb initiative for providing high-quality interdisciplinary and intersectoral training to young researchers, while at the same time serving for establishing new connections between research groups around Europe. A really brilliant idea… The added bonus of DYNANO is the central research topic of the network, nanosystems, which is a very attractive and increasingly expanding field of research and innovation.

And the most frustrating part?

Sincerely, at this moment I cannot talk about a "frustrating part". Too early to be frustrated, don't you think? Anyhow, the less attractive part of most projects is that related with bureaucracy, which sometimes steals too much time from science. Fortunately, administrative and financing issues of ITNs have been simplified compared to previous calls. Furthermore, we profit from the great work of our Project Manager, who makes things even easier. Thank you Marion!

Thank you Dolores,
and all the best for DYNANO.

DYNANO in brief

Starting date: 1st November 2011
Project duration: 48 months
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Project Coordinator: Dr. Mihai BARBOIU,
European Membrane Institute -IEM, Montpellier, France.
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