

### Editorial

#### From the Coordinator

DYNANO has now really started and the recruitment period was very fruitful for all partners. Professionally high level students have joined DYNANO and we are sure that the research will make good progress.

Within this context, a mostly sunny Montecatini Terme in Italy welcomed the DYNANO Marie Curie network fellows. The aim of the workshop was to create conditions for exchange and interaction, partly between the different disciplines and partly between promising young fellows and their supervisors. The workshop dealt with many different topics, ranging from Dynamic Constitutional Chemistry (Nicolas Giuseppone) and Dynamic Glycochemistry (Jesus Jiménez Barbero and Stéphane Vincent) to a presentation on employment in the framework of Horizon 2020 (Gilbert Rios). The workshop was also strongly oriented towards the development of practical skills with excellent presentations by our involved fellows.

Many take-home messages were effectively delivered: a) discussing science should always be constructive- attending brainstorming sessions at the end of the workshop is one very nice example; b) interdisciplinary issues should be considered when designing projects; c) open access discussions means the ease of sharing- the evolution of the web site will help to investigate fruitful associations and projects; d) we are at the beginning of a nice adventure but I am sure that DYNANO will be a successful journey exploring scientific limits at the borders of sciences; e) the participants must be grateful to the organizers for setting up this successful meeting. One may hope that it will be the seed for the growth of close ties and strong multidisciplinary activities, extending over all fields of science in the DYNANO context.

With all our best wishes for the future.

Farewell!!”

Montpellier, 23/10/2012



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Coordinator

### DYNANO in a few words..

DYNANO is a Marie Curie **Initial Training Network**, funded by the European Commission under the 7th Framework Programme. It trains a new generation of scientists in the interdisciplinary field of dynamic interactive nanosystems for biomedical & biotechnological applications.

**FP7-PEOPLE-2011-ITN – Grant Agreement N°: PITN-GA-2011-289033 –**  
**Start date: November 1st 2011 - End date: October 30th 2015 - Duration: 48 months –**  
**EC funding: 3 825 000 €.**

[www.dynano.eu](http://www.dynano.eu)

## DYNANO's main scientific objectives

- **Developing functional Dynamic Interactive Nanosystems** by tuned incorporation of biorelevant molecular components into nanoplatforms (nanoparticles, nanostructured surfaces, membranes, microarrays, etc.) in synergy with the self-construction of appropriate 3D nanoscaffolds.
- **Understanding the dynamic self-organization of molecular components** within functionalised nanoplatforms by exploring their synergistic adaptive behaviours and their structural evolution upon addition of different biological target molecules, and to control accurately the chemical/biological responses of Dynamic Interactive Nanosystems.
- **Addressing challenges** in the glycoscience field by inclusion of Dynamic Interactive Nanosystems as complex biomimetic platforms.
- **Developing new applications** of Dynamic Interactive Nanosystems in biomedicine and biotechnology, and investigating industrial applications for increasing the impact of developed bio- and environmentally responsive nanomaterials and "smart" nanodevices.

DYNANO's objectives address the research frontier of the highly competitive new targets for a variety of therapeutic and biotech applications with **enormous clinical perspectives**.

## DYNANO Partners

DYNANO's challenging objectives will be reached thanks to a strong **multidisciplinary consortium of 12 partners** with high-level expertise from **all over Europe**. First-class **research groups** are working hand in hand with innovative **industrial companies** to reach DYNANO's scientific goal and train a new generation of skilled scientists.

1. Centre National de la Recherche Scientifique – CNRS – France
  - Institut Européen des Membranes – IEM
  - Institut Charles Sadron – ICS
2. Université de Strasbourg – UDS – France
  - Institut de Science et d'Ingénierie Supramoléculaires – ISIS
3. Royal Institute of Technology – KTH – Sweden
4. Facultés Universitaires Notre-Dame de la Paix – FUNDP – Belgium
5. Consejo Superior de Investigaciones Científicas – CSIC – Spain
  - Instituto de Química-Física « Rocasolano » – IQFR
  - Centro de Investigaciones Biológicas – CIB
  - Instituto de Investigaciones Biomédicas "Alberto Sols" – IIBM
6. Università degli Studi di Firenze – UNIFI – Italy
7. Semmelweis University – SE – Hungary
8. International Centre of Biodynamics – ICB , – Romania
9. Attana AB – Sweden
10. GVS S.p.A – Italy
11. SOLVAY – Belgium
12. EMH – Belgium



## DYNANO in progress

On 16 October 2012 afternoon, coordinator M. Barboiu and organizer A. Scozzafava opened the second Dynano event by welcoming the partners and the students to the **first Dynano workshop**.

Nicolas Giuseppone had the pleasure to inaugurate the session with a presentation on Dynamic constitutional chemistry where he presented both introductory notions and some deeper insights into the area.

On the 2nd day morning, 2 sessions were dedicated to the Dynamic Glycochemistry and NMR presented by our network experts S. Vincent and J. Jiménez-Barbero.

**The network meeting** followed on 17-19 October. The majority of early-stage and experienced researchers had been freshly recruited so it was an excellent opportunity for them to introduce themselves to the consortium and to start practicing their oral skills by presenting their research projects. The network meeting was also an opportunity to enlarge the student's perspectives by presenting possible career development opportunities within Horizon 2020.

The last day of the network meeting was dedicated to discussions on project issues.

We started with the first **ESR/ER Committee meeting** where we discussed how the fellows could have a direct input into the training network. The students elected Erol Licsandru (CNRS-IEM, France) and Ioanna Kalograiaki (CSIC-IQFR, Spain) to represent the group and to participate to the Supervisory board meetings where they could voice the students' opinions and submit ideas to the general assembly of supervisors.

Indeed, in the following hour, they both participated to the **second Supervisory Board meeting** of the network. The latter opened the way to discussions on the chore activities of the training network: workshops, summer schools, secondments... Students expressed their motivation to beneficiate from complementary skills training. They also had a glimpse at how European Projects work on an administrative and financial side, since the coming up reporting period was discussed along with the different work packages and the budget.

Finally, the afternoon was dedicated to brainstorming on the students' projects and on cooperation between different partners to develop the DYNANO research and training.

### **Some feedback from our PhD Students on the event:**

*"I found the whole experience wonderful on all aspects, scientific, communicational, social, etc. I think it was a very successful event", Erol Licsandru- PhD Student, IEMM, France.*

*Most people were communicative, open, willing to collaborate and exchange. There was an explosion of new ideas and an energetic environment. We passed a constructive time in Montecatini Terme and got back home even more inspired and willing to evolve", Ioanna Kalograiaki- PhD Student, CSIC-IQFR, Spain*

**The DYNANO's team – Montecatini Terme, Italy – October 2012**



## Positions Offered and recruitment

We are very proud of our current recruitment that now brings together a talented, motivated and balanced group of 13 outstanding young researchers. Find out more about them on our website!

Nevertheless, we are still looking for 2 post-doc students to carry out DYNANO's scientific objective! Do not hesitate to apply . You can check our available positions through this link <http://www.dynano.eu/positions-available>

Dynano provides very attractive salaries and excellent working conditions, career development opportunities and a proper work-life balance. You will be entitled to a full employment contract with pension rights and full social security. You will be fully involved in the Dynano network and travel around Europe. The Marie Curie actions are here to make research a great career option.



## Interview with PhD Student in the DYNANO Network: Muhammet Tanç - University of Florence, Italy

I was born in a cold city in Turkey called Erzurum. Originally I am from another city named Ordu. After graduation from high school I was accepted at the Middle East Technical University (Ankara) and graduated from a B.S. and M.S. integrated chemistry edu. program ( without thesis ) in 2012 at the same university. After graduation I started a PhD at the University of Florence in the chemistry department.

I like sports especially playing basketball football and also swimming

### What do you expect from this PhD?

I expect to join different networks and meet other researchers and share their experiences from different universities and countries. In the aspect of my field, I expect to develop an original, independent and critical thinking ability.



Muhammet Tanç  
University of Florence, Italy

Read the full interview

<http://www.dynano.eu/communication/interviews>

## Interview with DYNANO's Partner

**Dr. Dolores SOLIS - The Spanish National Research Council -CSIC- SPAIN - Instituto de Química-Física "Rocasolano"**

*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**  
The Spanish National Research Council -CSIC- SPAIN  
Instituto de Química-Física "Rocasolano"

### **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.

### **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.



Read the full interview

<http://www.dynano.eu/communication/interviews>

## Miscellaneous

- **XX International Conference on Chemical Reaction**  
Luxembourg, 3-7 December 2012
- **9<sup>th</sup> European Conference of Chemical Engineering (ECCE9) and the 2nd European Conference of Applied Biotechnology (ECAB2)**  
The Hague- The Netherlands, 21-24 April 2013 [www.ecce2013.eu](http://www.ecce2013.eu)
- **23<sup>rd</sup> NAMS Meeting, NAMS**  
Noise (ID) - U.S.A., 8 – 12 June 2013 [jerry.lin@asu.edu](mailto:jerry.lin@asu.edu)
- **9<sup>th</sup> World Congress of Chemical Engineering NCCE-9**  
Seoul-S. Korea, 18-23 August 2013 <http://wcce9.org>
- **International Conference on Membranes, ICOM**  
Suzhou - China, 20 -25 July 2014



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