NANODRUG

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newsletter

Issue 5—March 2013

One year on and the NANODRUG Network has submitted the First Year Progress Report which describes the considerable progress of the work performed by all teams! This is due to the successful recruitment of all foreseen Early Stage Researchers during the first year of the project and the excellent working co-operation between the teams.
All Marie Curie Fellows have already received extensive trainings in their local teams, covering both the scientific areas as well as the transferrable skills. In some cases there have been specific language courses offered as well as career development opportunities.
All teams have been very proactive with the publication of scientific papers, conference talks and organising outreach activities.
The teams will meet again in September in France for the 2nd Summer School and Scientific Meeting.

European Commission

MARIE CURIE ACTIONS

PEOPLE

Queen Mary University of London

Cathédrale Saint-Maurice d'Angers

NanoFar

Autumn School experience at the University of Angers!

By Kiran K. Chereddy (ESR at UCL)

Hello from Brussels!! Hope you had a very good time during the Christmas break and you research is going smoothly.

I am sharing with you my first training school experience after being an ESR in NANODRUG. Last October, I attended the 1st NanoFar Autumn School, organised by NanoFar Consortium at the University of Angers, France. The training classes were arranged in the Health campus and lasted five days starting from 22nd to 26th of October, consisting of lectures, discussions and lab tours. Prof. Franck Boury acted as coordinator for the training school.

The aim of the training school was to introduce all the possible applications of nanotechnology in medicine and tissue engineering. The talks were mainly focussed on design of nanomedicine devices, nanomedicines for diagnosis and imaging, responsive polymers and nano carriers, targeted nanomedicines and nano-radiopharmaceuticals. PhD students came from different universities and for me this training was a good venue to meet researchers, professors and make new friends. Reputed speakers were invited from several universities like University of Nantes, Angers, Nottingham, Santiago de Compostela, Louvian and Liège. Professors from our working group, Porf. Rita Vanbever and Dr. Anne Des Rieux, also delivered their presentations on nanotechnology for pulmonary drug delivery and tissue engineering respectively.

The NanoFar autumn school helped me understand the fundamental concepts of nanotechnology in medicine, which I need to apply in my PhD project. Thanks to Prof.Véronique Préat for advising me to attend this training school and providing all financial support. Along with the lectures, the student

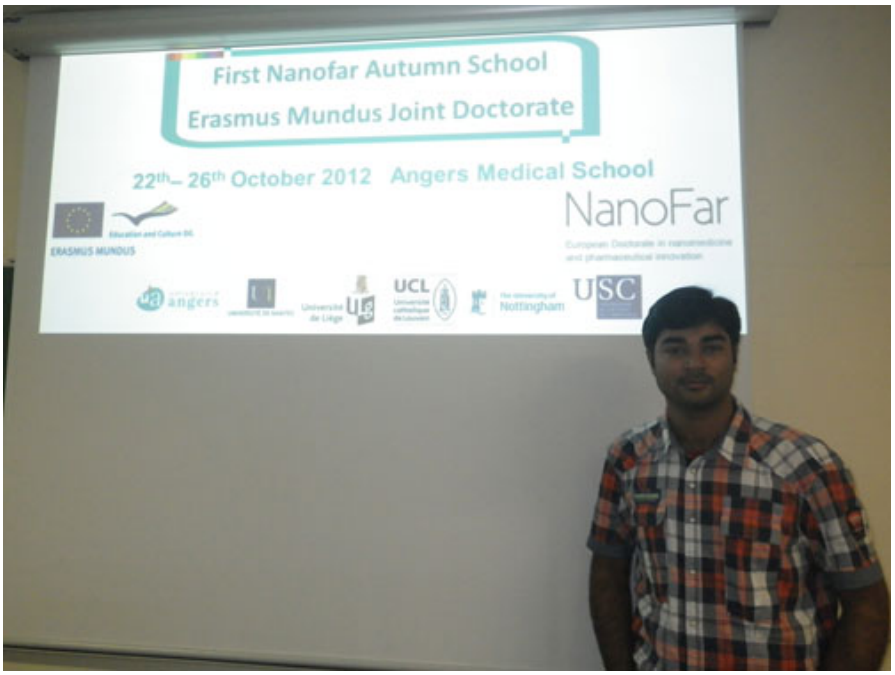
Château d'Angers with some of the student delegates

discussions went really well. I participated in a discussion 'Academic Research - Industrial needs – IPR'. I found the discussion was very apt to the current researchers and of course, I enjoyed it.

Angers is a nice small city. During the breaks, I visited a few good touristic places in Angers like the old castle, city centre and restaurants. All in all, I gained good knowledge, made new friends, tasted native Angers food and to say finally…. Anger autumn school was a pleasant experience!

All the best and see you soon in Cranfield!!

Kiran



In the Angers Autumn School Lecture Hall

Honestly, writing an article for the newsletter is always a little bit difficult for me but this time it is not. This time I have lots of words to say about my secondment in Compiegne, the GTRV meeting and Paris.

I think that I am the first ESR to visit one of the other NANODRUG project partners for a secondment. For this aim, I was at UTC-CNRS in the Research group of Prof. Karsten Haupt; Functional Biomimetic and Nanostructured Materials in Compiegne for 3 weeks and the time I spent there was very valuable to me.

Let's start from the beginning.

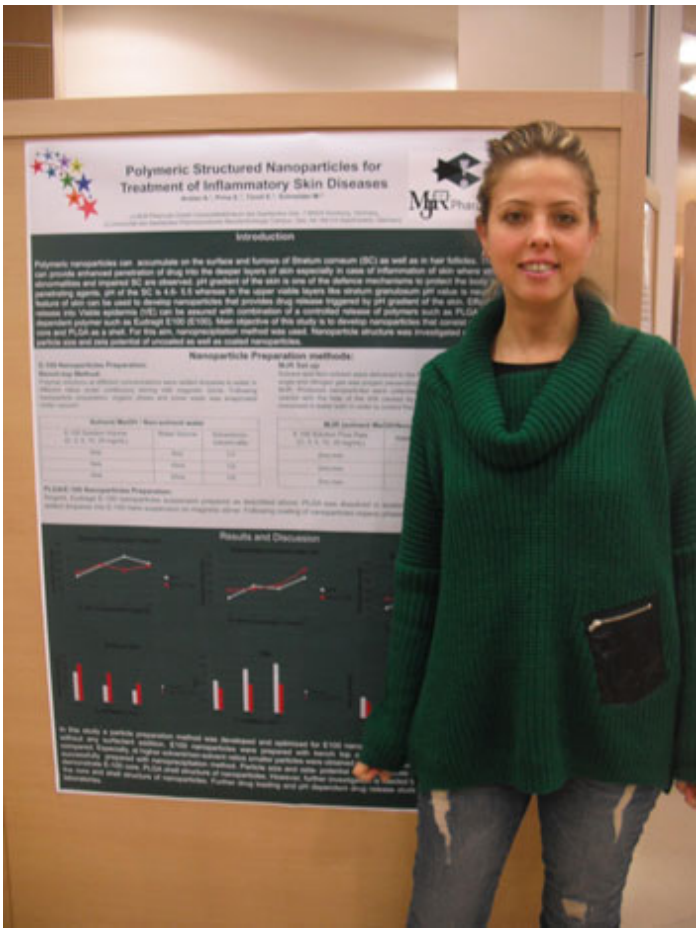
Selim picked me up at the train station of Compiegne and we drove to my residence where he helped me with my all my luggage and believe me when I say it was a really hard work to do. Then we went to the Christmas market to drink hot wine. The city centre of Compiegne is a very nice and warm place. You feel like being in a French movie. All these nice houses, tiny shops and decoration of the city for Christmas was very incredible and made me feel good. But there was more than this; good conversation with friends when you are drinking hot wine in Compiegne was priceless.

The Meeting.

The next day Selim, Jaqueline and I were on the road to the 27th GTRV Scientific meeting (Groupe Thematique de Recherche sur la Vertorisation) in Paris. It was my first poster presentation as an ESR of the NANODRUG project. I think we coped with this challenge very well. One thing really surprised me about the conference: at the end of the meeting, the organization committee was very proud about using English as the language of the meeting because only a few years ago the conference language was French. Language in Paris is still a problem for me. Trust me I was unable to survive in Paris without the help of Jacqueline and

Selim. I have been in Paris as a tourist before the GTRV meeting. In places for tourists the language is not a problem. But in the other part of the city it was totally different and I had to learn this in a hard way.

Paris is a very nice city; however even calling a cab can be a problem. We called a taxi and the lady who answered the phone said "I cannot send you a taxi. It is impossible" What does this mean?? Maybe it was too much for her or she was having a tough day I don't know. We were shocked by not finding a



taxi in Paris that night.

In spite of everything, I have to confess that we have very funny stories about these days mostly about me. However what happens in Paris stays in Paris. Besides that, Selim and Jacqueline were not able to take pictures. Please don´t believe them whatever they say!

The work

After GTRV meeting, we went back to Compiegne where Prof. Haupt, Jeanne-Bernadette Tse Sum Bui, Selim, Jacqueline and I made a plan for my work during my stay. In spite of having not much time; I worked very hard and went back to Germany with very good results. Everybody had been very helpful and they have made things easier for me.

One unforgettable moment for me was the Christmas party where Prof. Haupt prepared "Feuerzangenbowle" for all the group members. In addition to all marvellous fragrances, the preparation of this beverage was a visual show with flames. When we were drinking this delicious wine, people told me that it is a tradition and he prepares this drink every Christmas. Frankly, I was very happy to be there at that time and not to miss this tradition.

The weather

I would like to finish my letter by saying some words about the weather and the French food. I was a little bit disappointed. I expected warmer weather in France than Germany and I had a dream of spending my time outside without freezing. However, reality was totally different. Behind my expectations it was colder than in Germany. Nevertheless even cold weather couldn`t stop me going out and enjoying the city.

The food

I have kept the best part for the end of my article. French people are so proud of their cuisine and I believe they have the right to be. I am a great fan of French food except for some deserts. On one day, Jeanne-Bernadette Tse Sum Bui organized lunch for me and took me to a traditional French restaurant where I lost myself in eating. In contrast to Germany lunch and dinner are very important in France. French people take their time while eating and first of all they enjoy eating. Maybe this is the reason of all these delicious cuisine.

Thank you

Respectfully, I would like to thank Prof. K. Haupt, Dr. B. Baumstümmler, Emre Türeli, the project coordinator Dr. Resmini and the EC Marie Curie Actions for this opportunity and I am looking forward my next secondment.

Asli

London calling …

by Benjamin Fell

There are at least three easily available sources for coffee in the near vicinity of the Blizard Institute (Queen Mary, University of London) at all times; one of the first important (if not even life-saving) things you learn during your PhD thesis.

But being situated in Whitechapel / London, there are of course so many more things around… I have been living in London for some months now and I still haven't seen part of what this vibrant metropolis at the Thames has to offer. Sure, I already visited the British Museum on a rainy Sunday afternoon, attended one or two gigs in Camden Town and discovered large parts of the Southbank during the course of a well spent weekend but there is still lots to discover and see (with the list of things-to-do getting longer from day to day).

Naturally, spending some years in London for a PhD thesis isn't only about having a fun time playing tourist (just kidding of course: the worst thing about London are the flocks of tourist constantly roaming the streets and blocking precious space in the tube…); it's also about having a blast doing some serious science. The conditions for this couldn't be any better: I have the general infrastructure of Queen Mary with all those seminars, optional lectures and extracurricular activities to choose from, I got the NANODRUG network delivering even more possibilities to enrich my scientific education and personal experiences … and with the Kelsell Group (Centre of Cutaneous Research) I have some great people from all across Europe around me on a daily basis, helping me finding my

way around the modern labs of the institute (among many other things) and, in general, making me feel like I actually belong. With a premise like this, it shouldn't be that difficult to develop a working *in vitro*-skin model for my fellow networkers to test their nanomaterials on (some future co-operations I am really looking forward to) and to get together some nice data for the next big thing in September (early autumn in Southern France … to that one I am REALLY looking forward to…).

So yeah, all in all, it finally starts to sink in what a big, once-in-a-lifetime opportunity my position in the Nanodrug network and my working and living here in London present. Therefore, I am most definitely looking forward to an additional two-and-half years, which, in all probability, are going to be some of the most demanding, fruitful and fun of my career to come.

***"Now get this; London calling, yes, I was there, too…"* (The Clash)**

Benjamin Fell @ QMUL-2

Even when the winter tries to stop us with its frosty days, we never give up. Every time we write for the NANODRUG newsletter we have the opportunity to stop for a moment and think about everything that has been done in the previous months here at Queen Mary University and, more in general, in London.

We had the opportunity, for the first time in our lives, to demonstrate in the lab and then marking the scripts of the students of Queen Mary. It was such a great experience and we really enjoyed doing it, seeing all the students looking at you, trusting in your knowledge and having the chance to actually help them with their work, made us feel really useful and satisfied.

Gabriele and I attended and volunteered for a really interesting and exciting conference (Macrocyclic and Supramolecular Chemistry Meeting) provided by the Royal Society of Chemistry. We were responsible for welcoming all the participants, tidying and organizing the rooms in which the conference was taking place, providing information and help to all the participant and so on.

We also attended the induction as STEM ambassador that allows us to volunteer in London's schools. Following this event, we will shortly start to volunteer across London giving presentations or lectures, helping students from 6 to 18 year olds to understand more about science and make a confident decision about their future whether they would like to start a career in the scientific field.

We gave our first year talk in front PhD students, Postdoc and professors from Queen Mary Univer-

sity presenting my research and preliminary data obtained during these months. We also received really positive feedback from other PhD, postdoc and professors.

We attended an exciting conference on stem cells in the headquarter of the Royal Society of Chemistry titled Spinks Symposium "Regenerative Medicine" in which we had the opportunity to meet and discuss with professors and industry representatives.

Social and cultural life is as usual amazing here in London. But not everything in life is sweet and sometimes things turn grey and bitter. Dr Paolo Bonomi, after the end of his contract, left us to join a new research group in France. Well not so new… as Dr Bonomi has found employment with a partner from IRMED another funded Marie Curie project for which he has worked as Experienced Researcher within the Marina Resmini group. So the networking has worked well for him. Anyhow we are going to miss him a lot as he was a fundamental help in the lab and a great friend during and after work. For sure the photo book we gave him as a gift will help him to keep in mind the time spent in London. But thanks to the Marie Curie network he is now working in a research group part of the NANODRUG network so this is not a farewell but just a goodbye. This is probably one of the most difficult aspects of working in a lab and in particular in London. People always arrive and leave and you have to get used to it even if is always sad say goodbye to a friend.

After one left, a new one joined us. Sofia, a new post-doc from Greece, and we are sure we will have good time with her, both in the lab and in spare time. Sofia is also a Marie Curie Fellow having successfully applied for an EC Marie Curie personal fellowship.

Giorgio and Gabriele

I had a very good time during my first semester in Innsbruck. For me, it was the first semester that I got all the lectures in English. I also experienced different cultures. But, these were all not a problem because the colleagues in our group are all very nice.

There were two very important visitors coming to our laboratory at the end of October. They were our NANODRUG collaborator Jacqueline and Dr. Evi Gkeka.

One of the aims of the project is to give the collaborators more communication with each other. New ideas can be received from others and our minds can be broadened. Jacqueline does experimental research on membranes, and I do simulation work. It is always a good idea to combine these two works together. Although we chatted by email and skype several times, it did not work very well. In the last week of October, Jacqueline visited our group. We talked to each other face to face and that helped us a lot. I understood the data that can be examined by the equipment in her group and she knew the parameter which I lack in my simulation. It's a good start and I'm expecting to further our cooperation.

Dr. Evi Gkeka came from Biomedical Research Foundation Academy of Athens. She arrived in our group the following week. She is a lipid membrane modeling scientist. It is an interesting fact that after knowing that I've got the position I did a lot of information retrieval on membrane modeling. The first paper I read was the Dr. Gkeka's doctoral thesis. At that moment, the author was in my office. I can communicate with her at any time. She was enthusiastic to answer all of the questions I asked. She also gave me lots of advice on my research work. I cannot express my feelings and thanks for her great help.

And, of course, the most beautiful period of this semester was Christmas. It was no doubt that I am a bit homesick. However, the activities for Christmas in Europe were not less than spring festival in China. The happiest event was the arrival of my girlfriend. We travelled to the nearby cities and experienced the culture of Europe in many fields, e.g. architecture, music, food and religion. I experienced truly the culture of European countries from the Christmas concert in Vienne, the mountains enveloped in Saltsburg, the fireworks displayed in Innsbruck and the beautiful scenery on the top of the Alps.

Now it's time to continue my work. I will present my first poster at the end of February with lots of pressure as well as motivation. Also I look forward to seeing my friends in the next workshop at Cranfield.

Yin

It has been a pretty busy period for me, as from October I started to work on industrially-made silica nanoparticles, which will constitute the base for my future work with other different types of nanoparticles and skin models.

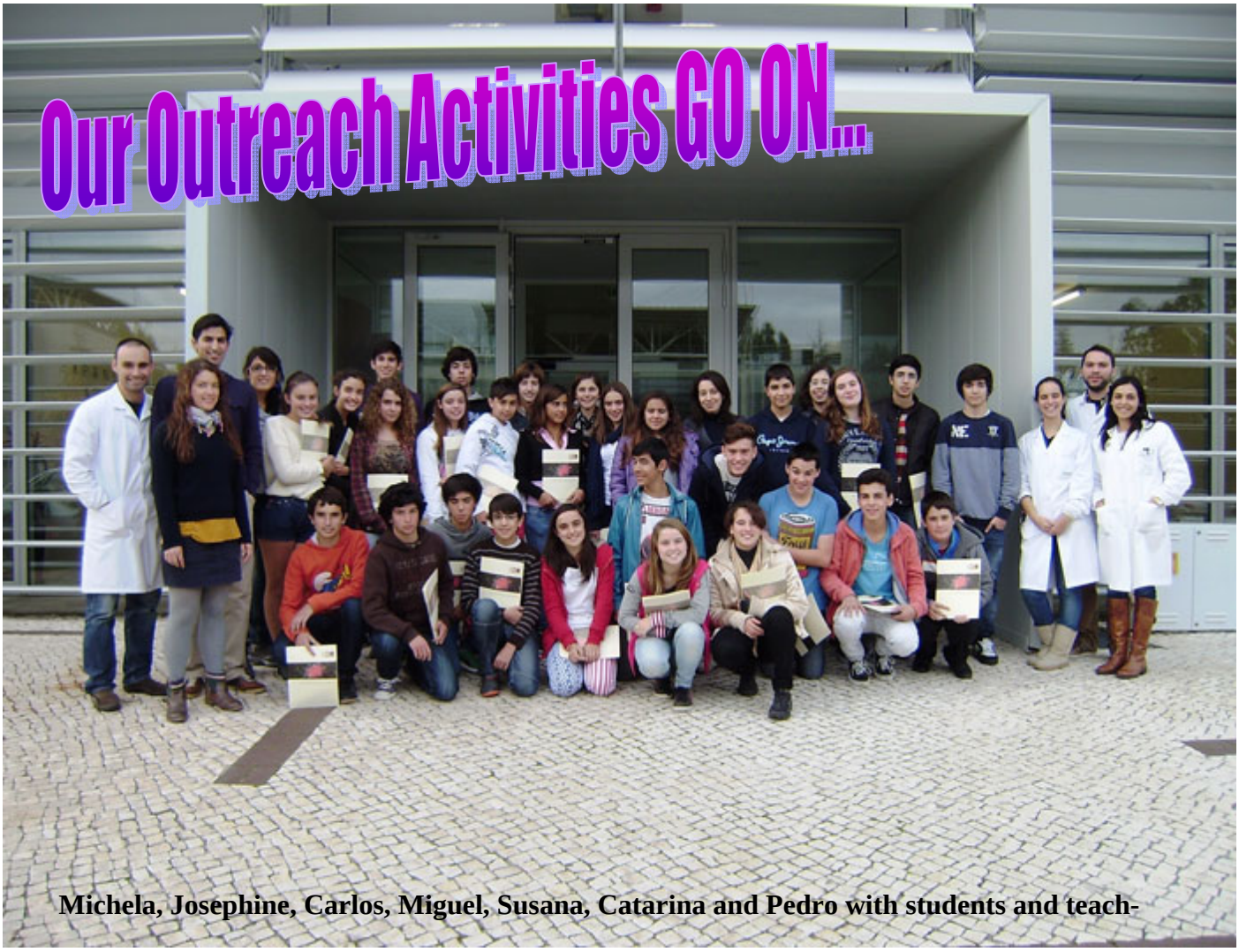
In Mid-November my supervisor and I, went to London to meet Dr. Resmini to establish collaboration for the toxicological analysis of some of the nanoparticles they produced. Because of this I spent my time before and after Christmas Holidays working on both mine and Dr. Resmini's samples, in order to get usable results.

At the same time I assisted in the organisation of the first NANODRUG Workshop on Nanomedicine that will be held at Cranfield University in April 2013. We met with Dr Resmini to discuss the organisation of the workshop and establish a programme. I also interacted with the Mitchell Hall Event Manager at Cranfield to book accommodation for all participants and choose the venue for the lectures and made sure that everything for the worshop was properly set up, whereas my supervisor was working on program and contacting potential speakers. This experience gave me the opportunity to gain considerable skills in event organization.

Finally, I have just heard that the abstract of my work on silica nanoparticles has been approved by the British Toxicology Society (BTS) for presentation at the BTS Spring Meeting 2013 that will be held in Solihull, Birmingham, UK from 7th to 10th April 2013.

Claudia

Our Outreach Activities GO ON...



Michela, Josephine, Carlos, Miguel, Susana, Catarina and Pedro with students and teach-

Every year, research institutes, universities, museums, schools of Portugal open their doors to students during "The Science and Technology Week" organized by CIENCIA VIVA. Last year, this event was held from November 19-24.

As the CNBC took part in this event, we also gave the availability to show our laboratories in Biocant Park and therefore explained a little of our work and projects to students.

We received a class of 28 students from the private school in Cantanhede (Escola Pedro Teixeira), of the 9th grade (15 years old). Due to the big number of students I asked the help and involved other colleagues in this unusual and funny working day. I was really happy to receive their availability and then to see their enthusiasm in participating in all activities.

Before going for a tour in the Tissue Engineering and Matera Labs, we received the students and the teachers in the Centro de Ciencia Junior (Many Thanks to Margarida Vieira who allowed us to use her Lab and she always invites us for teaching activities!!!) where Josi and I gave the pupils a talk about the ongoing projects and research interests of the group, mainly focusing on the use of nanotechnology for drug delivery and cells differentiation. Catarina Praca talked about stem cells and explained the importance of doing research in that area. Miguel also contributed in this first session of the day as personal interpreter of Josephine, in fact the students were not able to understand English so Miguel simultaneously translated Josie`s words. I gave my first talk in Portuguese and it was a success!!!

Thank you Miguel, you are a great translator and Portuguese teacher!!!

After the talk, to make all of the topics more real, vivid and understandable we went with students in our laboratories and the pupils could be hands on with nanofilms (thanks to Pedro), see beating cardiac myocytes under a microscope (Thanks to Susana) and have a look at all the equipment needed to make and characterize nanoparticles (Thanks to Mi-

guel and Carlos). The pupils were impressed and asked a lot of questions and the teachers were really satisfied. For us it was nice to see a strong and true interest in student's eyes…

Beyond the overview of our work, the students also learnt that it is very important to speak and understand English in a proper way to communicate with people from all over the world.

And we did a great job altogether communicating and teaching science that is of the utmost importance!!!

Michela

Science Day dedicated to non-Portuguese scientists working in Portugal

THE FUTURE IS NETWORK !!!

Ciencia Viva organized the Science Day dedicated to non-Portuguese scientists working in Portugal on February 2nd. Michela and I got an invitation and went together with our colleague Ivana Kostic, from Serbia, to Lisbon to attend this meeting. It was a great opportunity to enjoy a marvelous sunny weekend in Lisbon and to join both work and recreation.

The main topic of this conference was Science and Technology in a Global World. Many (for research in Portugal) important people were there to give us an overview of their opinions.

The Opening session was held by **Miguel Seabra**, President of the FCT (Foundation for Science and Technology), who emphasized the importance of Science which is a tool to force international collaborations. Alexandre Quintanilha (Secretary of the board of the associated laboratories) stressed the importance of mobility and connectivity inside the EU. Also António Rendas, President by the council of rectors of the Portuguese Universities and Luis Kandijimbo, Director of the Cultural Association, CPLP, were invited to talk in the opening session of the Conference, which was launched by **José Mariano Gago**, Minister for Science, Technology and Higher Education.

The most interesting talk was given by **Lidia Brito**, Director for Science Policies, **UNESCO**, former minister of Science and Technology of Mozambique. The title of her presentation was "Scientific cooperation in a changing world: a space for Science in Portuguese?". Deduced from the global problems in our world, like poverty, climate changes, the economic crisis, critical ressources and the decreasing biodiversity, Lidia Brito showed, that there has to be a new goal of sustainability and responsibility on a global scale. She expressed this with the picture of a new DNA for global sustainability, which is a triple helix, whose strands are environment, economy, sociality.

To foster sustainable science, it is of utmost importance to focus on interdisciplinary research and networking, and so **"to build up a global partnership from isolation to network versus network of networks".** This means, to design new collaboration models, through synergies, which are based on commonalities, differences and complementarities. Lidia Brito emphasized with her talk the importance of networking and mobility.

Our summary of this day is the following: We met a lot of people from different countries, they are researchers or professors in several Universities and research institutes in Portugal. We also opened our perspectives and talked with researchers from other fields, like some Physicists, one working at CERN. That way, we came back home with a lot of new acquaintances that could be useful to make important collaborations. We will try to implement the suggestions given by all the speakers, which are in harmony with those from Marie Curie and our ND Network: **"To be mobile inside and outside of Europe, to connect each other strongly inside Europe and to create a global Network".**

Thank you Ciencia viva for the nice day and the sophisticated portuguese lunch!!!

Michela and Josephine

Michela, Miguel and Josephine at the Centro de Ciencia Junior of the Biocant Park

X Annual Meeting

Center for Neuroscience and Cell Biology
Doctoral Program in Experimental Biology and Biomedicine
19th – 21st December 2012

The CNC Meeting is an opportunity for the PhD Students working at the Center of Neuroscience and Cell Biology to talk about their ongoing work and to show their results.

In this context we can see a multitude of topics that allow us to grasp the different focus of research within the groups of the CNC. Beyond providing the experience to present their work it is also a chance to promote connectivity among all the groups and to connect with the invited guest speakers.

For the first time in ten years the students of the BEB Program (Experimental Biology and Biomedicine PhD program of the CNC) where behind the organisation of the CNC meeting 2012.

The entrepreneurship of Biocant offered a great place for this meeting and also for discussing the future challenges of research in Portugal on a round table.

The Sessions of the Meeting have ranged from Molecular Biotechnology and Health, Cell and Molecular Toxicology/ Microbiology to Neuroscience and Disease, Biophysics and Biomedical NMR, Cell Development and Biology. All fields inside the CNC were represented by PhD Students giving talks and showing posters. The Postersession was accompanied by tasting of regional Portuguese products and nice Jazz music. This offered a comfortable and fertile environment to talk about science and therefore to enhance the connectivity inside the CNC.

The invited guest speaker for the Conference has been Eduardo A. Silva from the UC Davis in the United States. He is working in the field of translation stem cell bioengineering. He was talking about material Systems which can promote Angiogenesis. Therefore they developed in his group a cell delivery vehicle based on Alginate, which is a Copolymer composed of α-L-gluronic and β-D-mannonic acid sugar residues. The macroporous Alginate System functions like an *in vivo* depot of cells and factors, which exit over time from the Polymer, due to its degradation. The repopulation leads to the repopulation of the host system and together with the secreted factors to Neo -Angiogenesis.

The CNC Meeting was a great opportunity for Michela and me, to learn more about the research in our Institution and to make new acquaintances which can help us for our work.

Josephine

in the news

QMUL2

Researchers from Queen Mary, University of London, and Barts Health NHS Trust have identified the genetic mutation behind a devastating disease of the small intestine. The results are published in the journal *GUT*. Professor Tom MacDonald co-ordinated the research along with geneticist **Professor David Kelsell** from Queen Mary, University of London. The study was supported by grants from the European Commission via the IPODD programme (Intestinal Proteases: Opportunity for Drug Discovery), and Barts and The London Charity. Read more at:

http://www.qmul.ac.uk/media/news/items/smd/88700.html

CNBC

Dr Lino Ferreira was selected as one of the 15 scientists in Portugal to report his experience as a scientist to be disseminated in the Portuguese TV.

Recruitment

NANODRUG

Dr Piyush Wanjari (SANOFI-AVENTIS)

Piyush Wanjari was born in central Indian city of Nagpur in 1984. He graduated with a bachelor's degree in Chemical Technology from Laxminarayan Institute of Technology, Nagpur in 2006. He subsequently joined National Environmental Engineering Research Institute, Nagpur as a project assistant for a short duration.

In 2007, he entered the graduate program in the Chemical and Biomolecular Engineering Department at Tulane University in New Orleans, USA. After being a teaching assistant during the first year of graduate program, he became a research assistant in Prof. Hank Ashbaugh's Research Group at Tulane, where he also started his full-time doctoral research in 2008. During his Ph.D., Piyush worked on analyzing the solvent-mediated host-guest interactions and conformational changes in n-alkanes trapped within the hydrophobic confinement using molecular dynamics simulations.

During the doctoral program, Piyush has published a research paper entitled "Confinement induced conformational changes in *n*-alkanes sequestered within a narrow carbon nanotube" in *Physical Chemistry Chemical Physics*. For two academic years, he received the prestigious IBM Corporation Ph.D. Fellowship awards for proposing the research related to the solvent-mediated interactions between supramolecular hosts and hydrophobic guests.

After receiving his Ph.D. in 2012, Piyush was employed by Sanofi-Aventis in the Structure, Design and Informatics department of Vitry/Paris, France as a Post-doctoral Researcher within the Marie-Curie Research Training Network NANODRUG.

Apart from doing research, Piyush enjoys playing Cricket and video games, and also takes pleasure in watching Universe/Space-related documentaries.

OTHER RECRUITMENT WITHIN THE TEAMS

QMUL1

Dr. Sofia Papadimitriou joined Dr M. Resmini's research group at the School of Biological and Chemical Sciences, Queen Mary, University of London, in December 2012 with an EC Marie Curie personal fellowship, STIRENA, to develop a multidisciplinary project based on novel stimuli responsive materials as drug nano-carriers.

CNBC

Adrián Jiménez-Balsa has a BSc, MSc and a PhD in Organic Chemistry from the University of Santiago de Compostela (Spain). During the PhD, Adrián developed new synthetic models for DNA recognition, specifically, he studied catalytic processes and external stimuli to control the interaction of biomolecules with DNBA. Now he is working in a project to modulate stem cell activity.

Sonia Luzia Claro de Pinho has a MSC degree from the European Master in Materials Science and a PhD degree in Chemistry offered by the University of Bordeaux (France) and University of Aveiro (Portugal). During the PhD Sonia developed multifunctional nanoparticles for Magnetic Resonance and Fluorescence Imaging.

Conferences attended by the NANODRUG teams

QMUL-1

Dr Marina Resmini chaired the panel at the WISE@QMUL seminar "Wondering how to combine family life with an academic career?" at QMUL, on 6th December 2012.

Gabriele and Giorgio attended the RSC Macrocyclic and Supramolecular Chemistry Meeting – MASC 2012 at QMUL on 17th and 18th December 2012.

The PI and ESRs attended the Spinks Symposium - Regenative Medicine at the the Royal Society of Chemistry in London on 28th January 2013.

QMUL 2

Prof. David Kelsell attended the following events:

UK-Singapore Partners in Science symposium "Translational Skin Biology", at Biopolis, Singapore, from 3rd-5th December 2012.

Scottish Skin Biology Club in Glasgow in November 2012.

He recently was a research programme reviewer for EB House in Salzburg (Head: Johann BAUER), Salzburg Austria, January 10th, 2013.

Lino Ferreira. "Stem cells for regenerative Medicine". Instituto para a Educação e Cidadania, Mamarosa, Aveiro, September 29th. Workshop.

CNBC

Lino Ferreira. "Stem cell-based therapies for the regeneration of chronic wounds". Congress of Chronic Wounds, Exponor, Porto, October 26th. Oral communication.

Lino Ferreira. "Bioengineering strategies to modulate stem cell differentiation and improve cell engraftment". Seminar at Instituto de Medicina Molecular, Lisbon, December 17th.

Paulo, C. Vidal, M., **Ferreira, L**. "Antifungal nanoparticles and surfaces". II International Conference on Antimicrobial Research (ICAR), Lisbon, November 21-23, 2012. Oral communication.

Lino, MM, Paulo, CSO, Vale AC, Vaz, MF, **Ferreira, LS**. "Antifungal activity of dental resins containing amphotericin B-functionalized silica nanoparticles". II International Conference on Antimicrobial Research (ICAR), Lisbon, November 21-23, 2012. Oral communication.

Akhilesh Rai, Marta B. Evangelista, **Sandra Pinto**, **Lino S. Ferreira**. "Antimicrobial peptide permanently immobilized on surfaces with high activity in the presence of serum and low cytotoxcity against human cells". Nanoscience and Nanotechnology International Conference, Porto, 13-15 February. Oral communication.

Akhilesh Rai, Marta B. Evangelista, **Sandra Pinto**, **Lino Ferreira**. "Design of potent antimicrobial and biocompatible gold nanoparticles". Nanoscience and Nanotechnology International Conference, Porto, 13-15 February. Oral communication.

Forthcoming Events

NETWORK EVENTS

Workshop on Nanomedicine: nanomaterials, drug delivery and diagnosis
24-26 April 2013 - Cranfield University, United Kingdom

2nd NANODRUG International Scientific Meeting
1-4 September 2013 - Biarritz, France

NANODRUG Mid-Term Review Meeting
4 September 2013 - Biarritz, France

2nd NANODRUG School—Characterisation of nanomaterialsand applications in nanomedicine.
5-7 September 2013 - Biarritz, France

CONFERENCES

E-MRS Spring Meeting 2013
May 27-31, 2013, Strasbourg, France
http://www.emrs-strasbourg.com/index.php

EuroNanoForum 2013
June 18 to 20, 2013, Dublin, Ireland.
http://www.euronanoforum2013.eu/

11th International Conference on Materials Chemistry (MC11)
July 8-11, 2013, University of Warwick, Uk
http://www.rsc.org/ConferencesAndEvents/RSCConferences/MC11/index.asp

NANODRUG

Queen Mary, University of London, UK
CNRS, Compiègne University of Technology, France
Sanofi Aventis, France
University of Innsbruck, Austria
Cranfield University, UK
University of Coimbra, Portugal
MJR PharmJet GmbH, Germany
Université Catholique de Louvain, Belgium

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European Commission

MARIE CURIE ACTIONS

PEOPLE