



2nd IRMED Summer Training School

Take different cultures and scientific backgrounds, add a strong professional network, many experts and a warm and sunny week of summer in London, mix all together, bake in a oven called Queen Mary University for three days and you will “taste” an amazing experience that frames knowledge achievements, professional growth opportunities, networking and the chance to make new friends.

This is the kind of event you feel slipping by really fast but when you stop and think about it, you realise a lot has been done and achieved during this summer school: . Everyone gained new, learnt how to deal with social dynamics that can occur during the project fulfilment and had the chance to build collaborations and exchange useful ideas.

From the 24th to the 27th June IRMED researchers met in London at Queen Mary, University of London to take part in the 2nd IRMED summer school organized by the project coordinator, Dr. Marina Resmini. Also present were researchers from another Marie Curie Network, NANODRUG, coming from Cranfield University (UK), Innsbruck University

(Austria), Coimbra University (Portugal), Université Catholique de Louvain (Belgium), Sanofi Aventis (France) and MJR PharmJet (Germany). A total of 22 participants attended the summer school.

The program of the Summer School was based on lectures and practical training as well as workshops on transferable skills. There was also a lot of time for researchers to discuss their research project and how to contribute to the IRMED deliverables and milestones.

Following the Summer School, IRMED Fellows had the opportunity to present their results at the 1st NANODRUG International Scientific Meeting that took place on 28th and 29 June 2012 at Queen Mary, University of London.

All the participants went back to countries enriched with new scientific knowledge, ideas and motivations, but also with new friendships and collaborations. They were all very thankful to Dr. Resmini for the efforts she put in organising a very intense and productive IRMED Summer School.





The 1st NANODRUG summer school and scientific meeting in London were a great experience.

The day before the departure I packed my things and I hardly closed my luggage. I checked at least three times if I had loaded my presentation on the USB key, and just to avoid any accident, I sent the file to my email address. After that I was only looking forward to leaving and spending a week in a such amazing city.

Me and my colleagues took the train from Compiègne and in three hours we were in London. As long as I started walking along the streets of the capital I felt full of energy. I thought that I was one of the most lucky young scientists in the world. Travelling, meeting different cultures and having the possibility to share my scientific achievements was, and it is, one of my dreams. Thanks to the Marie Curie Actions my wishes have become true and my passion for science is growing more and more.

After a Sunday spent in sighting and shopping, on Monday we started to follow the interesting lectures that were fixed in the programme of the Summer

School.

In the last two days, everyone presented his latest results to all the members of the Nanodrug projects. I was quite stressed for my presentation, but at the end I was satisfied of my performance. I appreciated the questions and the suggestions that I received. Furthermore, that was an additional chance to im-



prove my presentation skills and face the stress to speak in public.

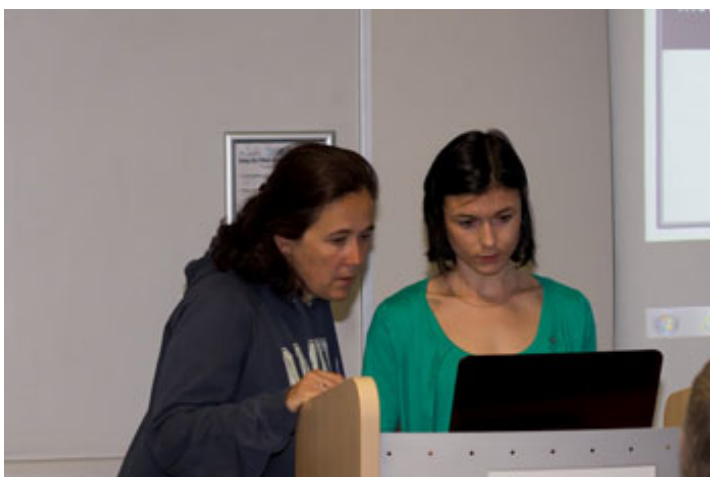
I was surprise by the kind of atmosphere that was present from the beginning of the week. All the participants, the PIs, ESRs and ERs, immediately constituted an homogeneous and tight-knit group. We



were together not only during the scientific part of this “London adventure” but we spent even the free time: lunches, dinners, sightseeing. I think this is of great importance to build a productive and nice collaboration among all the members.

I want to conclude giving my personal advice for young researchers: apply for a Marie Curie fellowship, do not miss this amazing opportunity!

Dr Serena Ambrosini
ER at CNRS





If only you could choose the day you are born!

I always thought I was lucky to have my birthday in the 'summer,' I say summer loosely as with the British weather you never really know when/if summer will arrive! However as my 18th Birthday came around, along with two A-level chemistry papers on that very day, I soon came to the conclusion that in actual fact 29th of June was not a good day to be born!

Last year we had our annual international meeting in Paris on my birthday and my presence was required. So this year, I was going to spend the week in France for my birthday. Wrong! The IRMED and

NANODRUG International meeting had been scheduled for that very week!

Oh well I thought, I will celebrate on the weekend instead. Half way through a very useful and animated talk by Rita on her PhD experience as an ESR she was saying how important it is to celebrate people's birthdays and not to forget them as it can be hard being so far away from your close friends and family... when everybody burst into song!

I would like to say a very big thank you to everyone who was there and for the cake, card and gift it was really touching and maybe the 29th June is not such a bad day to be born... the sun was even shining!

After all having 35 people come to your birthday party once you pass 25 is definitely an achievement especially when its not a special year!

Judith Ray
PhD Student, QMUL



During my PhD I had my first “travelling experience”. I left Italy and went to Germany to carry out part of my doctoral activity. After this experience, I was looking forward to work as a post-doc abroad . And when I strongly wish something, I finally obtain it.

I met Prof. K. Haupt in September 2011 at a congress in London. A few months later, I applied for the position of Experienced Researcher Marie Curie Fellowship within the European Commission IRMED project available in his group. After a successful interview, I started my new job on IRMED in February 2012 at the Centre National de la Recherche Scientifique (CNRS) in Compiègne, France, with great motivation and enthusiasm.

It has been a great experience so far. I had the chance to learn new techniques (ex. dynamic light

scattering, spectroscopy including UV, fluorescence and IR etc.) and work with new equipment on an innovative project. These additional skills have increased my scientific passion and given me an additional self-confidence.

Prof. Haupt’s group is quite international and therefore, I can practice English and French every day, learn more about science and share scientific ideas.

Despite Compiègne being a very quiet town, there are some very beautiful places to visit, such as the Château de Compiègne and the Forest nearby. One of my favourite hobbies is cycling in the forest or along the river Oise with my new friends!

From these first months at the CNRS I can say, without any doubts, that doing a postdoc in a European Commission Marie Curie Actions project is one of the best choices that I have made, not only for my scientific career but also for my personal growth.

Dr Serena Ambrosini



Dr Marina Resmini and Dr Paolo Bonomi from The School of Biological and Chemical Sciences at Queen Mary, University of London presented posters and oral communication at the largest and most exciting 2012 Spring Meeting of the European Materials Research Society (E-MRS) that was held on 15-18 May 2012 in Strasbourg, France.

When my supervisor, Dr Resmini, told me that I would attend and present a poster at the E-MRS Spring meeting in May in Strasbourg, France, I was really happy to have the opportunity to spend three days away from the laboratory in a city that I had never visited before. So I checked out the conference and city on the internet and was very impressed by the conference programme as well as the city.

Strasbourg is truly an enchanting city, full of surprises hidden around every corner. I could easily spend a few days here, just discovering hidden



nooks and crannies. We also had a gorgeous weather with temperatures around 20°C during the three days. Although a bit chilly in the evening, it was still lovely to walk along the river.

During these two years working in Dr Resmini's group at Queen Mary, University on London, I had the chance to attend a few conferences in Europe and around the world, but I was really surprised by the huge number of people attending the E-MRS Spring meeting. Over 3000 people from around the world attended the conference. I had the opportunity to meet and discuss science with scientists from Europe but also from Mexico, Japan and the USA. It was really an outstanding opportunity for networking, especially during the poster presentation sessions that were well attended. I presented my poster "Modulation of imprinting efficiency in nanogels with catalytic activity in the Kemp elimination", from my research funded by the European Commission for the IRMED project, which lead to interesting questions and discussions.

The conference organization was perfect, but also incredible was the level of the scientific programs, talks and workshops. I had a deep overview on ma-



terials and their utility for tissue engineering and on new methodologies to prepare antibacterial surfaces for a variety of applications. Even if the field of the research was not close to my work (imprinted polymers), I found interesting tips that can be useful for analyzing my polymers.

On the last day of the conference Dr Resmini gave an interesting talk on the work that she has been doing at the School of Biological & Chemical Sciences on the improvement of the molecular imprinting technique to prepare synthetic catalysts.

I would like to thank my supervisor Dr. Resmini and the European Commission for giving me the chance to attend such a high profile scientific event, and I hope to be able to attend the next meetings.

Dr Paolo Bonomi
ER at QMUL



Outreach Activities



In May 2012 Dr Resmini organized a ‘Scientist for a day’ event at Queen Mary, University of London. 31 Children from the Holy Ghost Catholic Primary School in London attended the event and carried out simple experiments in the lab, supervised by the PI, the Marie Curie Fellows and researchers from Dr Resmini’s Group.

The aim of this visit was to increase young people's choice and chances through science and open the door to a whole new world for young people, helping them to see science subjects with a fresh perspective and engage their interest and imagination in new ways.

The children were divided into groups and were provided with instructions, materials and tools to perform a real science investigation project: “which ingredient(s) in the taco sauce really do clean a penny?”

Dr Resmini explained to the junior scientists the experiment, providing them with a clear and easy pro-

cedure to follow like experienced scientists. Each team of kids were supervised by one of the assistants.

First, the junior scientists started proving that the taco sauce really cleans pennies. The next step was to find out which cleaning agent(s) in the taco sauce causes it to clean? They were really interested and started to run multiple tests and isolated one variable at a time to see which one was the real cleaning agent for the pennies. As nothing happened with the individual ingredients, they tried a combination of ingredients and isolated the variables to eventually reach the conclusion that the combination of vinegar and salt cleaned the pennies.

To finish off they wrote a report with all their observations during the experiment and their report sheets were assessed by a panel of scientists. The teams were judged on 3 main areas: 1. Very clean and neat handwriting, 2. Good answers presented in a logic way, 3. Evidence of precision in doing the experiments.

This was a fun day for everyone involved



On the 21st and the 22nd May 2012 Dr. Marina Resmini organised two science days at a London Primary School, involving children from 5 to 11 years old.

To support these activities, Dr. Resmini's group including the Marie Curie Fellows dedicated their time and knowledge to guide the young children through exciting experiments with the aim of attracting them to science.

Day one

The first group of children from year 1 and 2 performed the nappy experiment. The students worked in small teams each supervised by a member of Dr. Resmini's team. Children were able to extract and weigh the polymer from two nappies of different qualities and found out which of the nappies was most absorbent. The pupils based this on the absorbance capacity of the polymer itself, that they measured by repeated addition of a specific amount of water to 1g of the polymer extracted. The children enjoyed the experiments, helping each other and understanding the significance of how science could help to improve our daily life even with just a simple invention such as the NAPPY!

The second group from year 4 performed experiment on the preparation of slime. Dr. Resmini first explained how a polymer changes its appearance upon addition of a second element called a "cross-linker." Next, working in pairs, the children used a solution of PVA (linear polymer) and another solution of Borax (cross linked) to prepare the slime and they observed the polymer changing from a liquid to slime! The students needed to focus on the chemical process that causes the change and they were enth-

siastic about preparing the slime and testing its physical properties: strength, extensibility and malleability.

After the first two sessions the team was busy cleaning up and then went off for a well deserved lunch break, to gather more energy for the next class!!

The third group was comprised of very young scientists... just 5 years old! Even though they were very young, those little children got really involved in the "magic" taco sauce experiments. The aim of this experiment was to work out which 'magic' ingredient(s) in Taco sauce cleans coins. Each collaborator of Dr. Resmini was responsible for one group of 6 children, helping them to perform the experiments.

At the end of the full day everyone was really exhausted but happy to have seen so many excited children enjoying science. The team packed up everything and left the school ready to return the following day.

Day two

Children of year 5 and 6 performed the nappy experiment, but this time the children did not get any help from the team and they had to write protocols like real scientists! They worked in teams and they performed the experiment twice to test their ability to reproduce the results. At the end they had to write a report and the best team was awarded a certificate and a special pen from the UK Royal Society of Chemistry.

This scientific event was aimed mostly to bring young people closer to science and technology. The study of these subjects benefits all of us whether we realise it or not. Scientists like Dr. Resmini and her team, have a very important role to play in inspiring the next generation to see these areas as exciting - both through sharing experiences and offering young people the chance to get involved in practical work in a real-life scientific environment.

(articles written by Dr Diana Velluto, Marie-Curie Intra-European Fellow, QMUL)



The IRMED Mid-Term Review Meeting and Second International Meeting were held in Paris on 23rd April 2012



It was Monday, truly considered to be the hard day after the Weekend. Early in the morning, at 7 am, our French multi international team (Serena, Pinar and me) took the train to Paris to meet with all IRMED researchers, PIs and EC representatives.

We took the fast train from Compiègne to the Gare du Nord where we bought a scalding hot tea to warm us up as that morning was extremely cold. We had enough time to walk to the meeting point. However, once we were outside the train station, we had to walk very fast (almost even had to run) so that we didn't freeze! As we ran, we arrived to the rendez-vous point a little bit early. Nevertheless, we didn't have long to wait. Others arrived soon after, cold and excited to see all of us together again.

When we were all assembled the meeting started. Each of us (ESRs and ERs) gave a presentation on our personal journey through science followed by a our research work. It was interesting to find out what the other teams were doing and how they had progressed.

Paolo succeeded to synthesis fluorescent monomers as sensor receptors for anionic analytes. Judith tagged a polymer with a fluorescent molecule which had optical properties and were sensitive to the presence of an analyte. Pinar presented interesting results of MIP structuration using the bottom up approach while Serena performed her results from

solid-phase synthesis, and my talk concerned mainly the optimisation of imprinted polymeric systems. We had a unique possibility to talk about our progress and difficulties with our work, and finding that other members of the IRMED network could give useful advice or opinion.



One of the best parts of the day for us was the opportunity to talk to the EC representative about any potential problems we had in our labs and about our relationships with our supervisors. We also discussed the fact that all parties seemed open to sharing ideas and results to further the development of the project. We all came away with a great feeling that we were all working together as one unit. We also discussed the challenges of living in a foreign country and how our host labs were all very good at integrating us into the new cultures both in the lab and in daily life.

When the meeting came to an end we had a delicious lunch in a cafe just opposite. In contrast to the last meeting, the rain made us hide in the interior of the restaurant.

When we were returning to Compiègne, we were talking about the meeting, interesting presentations and how wonderful it was to meet everybody again. For us it is a unique opportunity to work with such amazing people, to be a part of this project and a Marie Curie Fellow.

The IRMED Fellows

Forthcoming

Network Events

jan 2013

3rd IRMED Workshops

Project Progression

London, UK

jul 2013

3rd IRMED Scientific Meeting

Innovative thinking

Val de Reuil, France

other forthcoming conferences

27-30 aug 2012

Molecularly Imprinted Polymers - Science and Technology

MIP 2012

Paris, France

<http://www.mip2012.com/>

27-31 may 2013

E-MRS Spring Meeting 2013

May 27-31, 2013 - Strasbourg, France

<http://www.emrs-strasbourg.com/index.php>



contact

Dr Marina Resmini
IRMED Coordinator
Reader in Organic Chemistry
School of Biological and Chemical Sciences
Queen Mary, University of London
Mile End road, London E1 4NS, UK



Tel. +44 (0)207 882 3268
E-mail: m.resmini@qmul.ac.uk
<http://www.irmed.qmul.ac.uk>