



NANOSTEM

Developing new **NANO**materials for neural **STEM** cells drug delivery

Newsletter

Issue 2—September 2019



All NANOSTEM members at the NANOSTEM mid-term check meeting that took place in London. 1-07-2019

Welcome to the 2nd issue of the NANOSTEM newsletter

So much has happened since the last issue. The **ESR workshop** in March, when all the ESRs met for the first time, attended several informative sessions and transferable skills trainings. Our ITN was reviewed by the REA at the **mid-term check meeting** in July which was then followed by the **1st Scientific meeting**. At this meeting the ESRs delivered excellent scientific talks igniting lively discussions that resulted in new ideas and collaborations to progress both the scientific project and the ESRs' training. During the **1st Training School** at QMUL, the fellows learned about the characterisation of nanomaterials and attended sessions on transferable skills. The NANOSTEM ITN is now in **social media**, the ESRs are already promoting the **outreach activities** in which they are involved, the **conferences** they attend, etc. Some ESRs have completed their first secondments, Patrick has been in Parick, Eleonora in London and Sara in Germany, and others are about to!



The NANOSTEM ESR Workshop in London. 4-7-2019

Keep reading for more details about all this in the following pages.



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Angela, Roberta and Matteo's first experiences as NANSOTEM ESRs

When my Marie Curie adventure started

An article by Angela María Barrera, ESR

When I was finishing my master I was convinced that I wanted to continue doing science, so I decided to apply for a PhD position abroad with a project that I really like; I was just waiting for replies. Suddenly, that day came, I received an e-mail... Oh my god! I could not believe it, I was selected to do a PhD as a Marie Curie fellow, I am going to Europe! I didn't know what to do, what to reply, and I will never forget that feeling when you are so happy and excited because everything is going to change. 'Okay, I have many things to think about now, to buy flight tickets, to find a place to live, but, okay I will find the way' that was what I thought; and I made it, now it has been 5 month since I am here, and it is exactly how I was expecting, a hurricane of changes. A new city in different country involves more that you can

About Angela



Angela was born in Susacón - Boyacá (Colombia). She started her bachelor's degree in Tunja but then moved to Medellín to finish her Bachelor thesis at the University of Antioquia, Colombia. She continued her master studies in the same University where she obtained an MSc degree in Basic Biomedical Science with emphasis in Neurosciences. Her Master Thesis was focused in the therapeutical effect of a natural molecule (linalool) in an ischemic stroke rat model. In April 2019, she started her PhD under the supervision of Professor Lino Ferreira at CNC from the University of Coimbra in Portugal, where she will test nanoparticles formulations in a *in vivo* mice model as part of the NANOSTEM project. In her free time, she enjoys reading, listening to radio, watching movies and traveling.

imagine, you have to learn how everything works, from the public transport to the supermarkets, because yes, in Colombia it is all different. The food, you have first to convince yourself that here you won't be able to eat the same and try your best to adapt to the new ingredients and the new tastes. I am lucky though because I am in Portugal and the food is very, very good here. The most difficult part for me until now is the weather, it is sooo cold and windy, I have never, ever felt something like this in my life. I will have just to get used to it!

A new lab, new people, new techniques, missing my family, my friends and my work life, yes but Portuguese people are kind, and fortunately the language is not so difficult. I can understand a bit if I pay attention and I know that with grammar and speaking lesson I will be able to speak Portuguese at the end of my PhD, jejejeje, a plus that I was not expecting.

The work in the lab is super organized, it is a huge group that really needs to be organized to work well, the relations between the collages are so cooperative between and everyone is always trying to help you .I have been very lucky because of the others ESRs at UC- Biotech, they are two super nice girls, a very, very good team to perform this project; Francesca, has been my angel here and I am sure that she is one of the most wonderful and kind persons I know. Since the first time that she picked me up to come to the Lab she has been helping me with everything; during just these few months we have gone through so many things together, smiles and tears, a bit of everything, but together. And here is also Ines, this super stylish girl always with a smile and



Angela in Coimbra: "A new city in different country involves more than you can imagine, you have to learn how everything works, from the public transport to the supermarkets"

with her kindness, she always has the best advices for everything. And if you have any doubt about Portugal, ask her, she always knows. Those two people are the best part of being here, they make easier being more than 7000 km from home. In the lab, the facilities are amazing and the advantages to perform experiments compare to Colombia are a lot. Here you don't have to wait 3 months for an antibody, or to spend weeks making 1000 pictures in the microscope. Then was the meeting in London, it was super nice to finally meet all the people from the network and spend one week sharing different activities. We had time to speak about science, the project;

conferences, about how to deal with a PhD and to hang out a bit. This meeting was not in one of the best moments of life, I tried my best, but I think all of them could notice that I was distracted, because to complete everything, all, all that can happen to a person in one week happened to me that time in London. I hope someday I will just be laughing about it and saying to myself "come on Angela, it was nothing! you were overthinking, you were overreacting." Sometimes I think about myself and how my life has been and I am so, so happy when I realize that I am doing this, that most of my child dreams are becoming true, that in this moment of my life, I am here, I am in Europe following my dreams, improving my career, and doing a PhD as a Marie Curie fellow. Many, many reasons to be happy.

Angela



Cu nesci arrinesci

An article by Matteo Puglisi, ESR

A traditional Sicilian motto says "Cu nesci arrinesci", which means "Those who leave their place, will succeed". This is what I kept saying to myself some years ago when I moved from Sicily to Milan to start my University studies. Back then, I had no idea that I would have repeated it again before starting my PhD in Germany. Indeed, in November 2018 I moved to Munich (Germany) where I am now doing a PhD on cell replacement therapies and brain repair in Magdalena Götz's lab.

Starting a new life in Munich was easier than expected. Do not get me wrong, the German language, the bureaucracy and finding a place to live gave me a hard time at the beginning. Nevertheless, such initial stress was well counterbalanced by the surprisingly nice Bavarian and by even better lab mates. Weather-wise, winter time was very stereotypical with some snowfalls that made magical the visit to the traditional German Christmas Markets. About the colleagues, they surely made the beginning easier. Indeed, before starting my PhD I was afraid of not being knowledgeable or



A view of Munich captured by Matteo

experienced enough and of not being able to communicate every day in another language. However, with the help of my new colleagues such fears progressively disappeared. From the very first day, they have been extremely welcoming, supporting and caring (and fun!), both inside and outside the lab. As days passed by, I spent less and less time lost in my thought and in the corridors of the Biomedical Center and I could focus more on my training. Such first weeks have been both tiring and thrilling. In a small amount of time I had to keep up with the literature and learn new techniques, such as how to isolate and culture Neural Stem Cells or how to perform mouse surgeries. In the meanwhile, I started exploring and getting used to the city of Munich and its customs. For example, back in Italy I was used to oversleep on Saturday morning and do grocery shop on Sunday. However, supermarkets are closed in here on Sunday. Being forced to do take care of the food on Saturday, I realized that having the whole Sunday to meet friends, cultivating your hobbies and relax is just amazing. One of the most popular weekend activity here is going

About Matteo



Matteo was born in Catania (Italy) in 1993. After high school graduation he moved to Milan (Italy) to study Medical Biotechnologies at the University of Milan. After getting his bachelor degree in 2014, he continued with a Master degree in Molecular Biology of the Cell and completed it in 2017. To write his final dissertation, he carried out an internship in Elena Cattaneo's Lab on synaptic proteins deregulation in a mouse model of Huntington's Disease. After graduating, he joined the Lab of Dario Bonanomi at the San Raffaele Research Institute (Milan) as a research assistant. There he took part to different projects dealing with spinal cord circuits' development and repair. Since November 2018, Matteo joined Magdalena Götz Lab in Munich (Germany) working in the field of cell replacement therapies and brain repair. In his free time, Matteo likes to read books, listening to music, cook, hanging out with friends and hiking.

to the Biergarten (outdoor beer pubs) or grab some beers and chill on the shores of the Isar river. Unsurprisingly, I got easily acquainted to this new custom, especially now that is summertime. Apart from my local friends and colleagues in Munich, I am also happy to share this PhD adventure with the other NanoStem ESRs. I just came back from the first NanoStem Summer School (London 1st-5th July) and it was very nice to meet them again and spend some time together. Days literally flew by running from one presentation session to classes and they always ended up with us chilling together and exploring London. Actually, I am still asking myself how people coming from such different background managed to hang together so well. Maybe, at the end of the PhD I will come with the answer to this question. So far, these first months have been very intense but full of rewards and new experience, so I am looking forward to see what is going to happen in the future.



Matteo

First half year evaluations

An article by Roberta Bilardo, ESR

It seems like yesterday I was closing my luggage and taking my flight to London... Instead six months have already passed since this challenging, but also amazing experience-for-life called PhD started for me.

My arrival in London was accompanied by a good dose of anxiety. I knew I would have had to face a different, completely new environment and adapt to the rhythm of one of the most crowded cities in the world. Also, starting in February meant jumping on a

moving train, with more potential difficulties in integration from both the scientific and the social point of view. However, in a very short time all these worries disappeared, leaving the way to the excitement of discovering more about my project and the happiness of taking part to a very friendly working environment. Indeed, soon I was able to appreciate being part of a small, but still international research group (it includes people from Italy, Russia, Spain, China, UK, Portugal) as an additional positive aspect. Each person has his/her own scientific, but also cultural, background but the willing to collaborate and help to each other is shared by everybody. Also, out of the lab, every discussion

about general topics becomes an occasion to learn something new about other countries and cultures. And I could experience this even more amplified in occasion of the meetings with the other NanoStem fellows. In fact, a workshop of a few days was enough to create a special air of familiarity and a real network aiming at team-working efficiently. This team spirit grew during the following months until the meetings in July, where we could spend more time together and to discuss more in details how our single projects can link together



Roberta with some of her labmates

with each other.

About Roberta



Roberta was born in Milazzo, a small town in Sicily (Italy). After high school graduation, she enrolled in the Department of Chemistry in Messina where she obtained a bachelor degree in 2016 and a master degree (following an analytical-biological curriculum) in 2018. Her thesis research focused on the synthesis and characterisation of bichromophoric systems based on curcumin for biomedical applications. An important contribution to this work derived from the photochemical studies carried out at the University of Newcastle, during an Erasmus program. In her free time, she likes to take long walks but she also enjoys watching thriller movies.

As regards my personal work, I spent most of my time during the first months, reading papers and learning about BBB, nanoscale drug delivery systems, and use of zebrafish as animal model.

Once I underwent quite a

few trainings and inductions, I could start doing some experimental work and even more time and efforts were required to learn how to handle experiments with zebrafish.

I also had a lot of possibilities to learn from out-of-the-lab activities: interesting conferences, like the 5th London Polymer Group Symposium in Canterbury and the RSC Chemical Nanosciences and Nanotechnology Symposium at the University of East Anglia in Norwich, the seminars organised weekly at the department or huge lectures held, among others, by Nobel Laureates such as Richard Henderson and Jean-Marie Lehn. Additionally, being actively involved in outreach activities has been useful to build soft skills up. After the summer break, now it is time for a sort of starting over. Many challenges as well as experiences will need to be faced, but I hope for the next evaluation to be positive as this first one was.



Roberta, Fede and Alena visited Canterbury to attend a conference on polymer chemistry

The ESR workshop in London (March 19)

First time meeting!

An article by Sara Bernardo and Eleonora Rizzi, ESRs

In march of 2019 we had the opportunity to meet our ESR colleagues for the first time. It seems so far away now!

We had a short but intense two days that started with a wonderful dinner in the city center organized by our ESR fellows in London (Roberta, Alena and Federico). The dinner was full of first impressions and sharing our first months as MSCA fellows with each other. As Inês (ESR at



First dinner all together in London and first photo of the ESRs ever!

CNC) described it: “these days were the perfect moment to know each other and our projects for the first time”.

Next day, we had the opportunity to finally meet the persons behind all the emails we had been receiving: Prof. Marina Resmini, our project coordinator and Dr. Ana Castilla, our project manager.

They were two intense days full of information, new names and a lots of new concepts. We experienced for the first time what is really like to be a MSCA fellow, the rules, the projects, the work but also



First day of the workshop

the great advantages. We finally got the chance to put faces to the people behind the different parts of the project we have only read about. In Patrick’s words (ESR at Innsbruck University): “This short experience helped me to get the bigger picture in what the NANOSTEM project is”.

Thanks to this workshop, we quickly had to learn how to work together, through the different activities proposed for those days, but also in terms of future projects like the videos for the mid-term check in July. Elisa will describe this experience as “very motivating” and in Francesca’s words, those days were a

“constructive/productive moment”.

It was a very nice experience being able to share the whole ITN experience (moving out, meeting new people, starting the project) with people that are in the same situation as you, and who will be your work colleagues for the next three years. Eirini (ESR at the University of Birmingham) stated that the workshop was “intriguing and it helped us enhance our transferrable skills”.



Saying goodbye to London

Not only we learned about the MSCA-ITN world but as Sonia (ESR at MJR PharmJet) said “it was a nice opportunity to get to know each other, to learn more about the NANOSTEM project and above all to know what to expect during our PhD and what is expected from us”.

Sara & Ele

The ESRs are going on secondment!

Imagine a biologist in a chemistry lab!

An article by Eleonora Rizzi, ESR

Secondment, a word that not everyone understands. A Secondment in a Marie Curie Action Project is a period in another laboratory among the partners of the project. Summarizing: it's a great experience to change environment, learn different things from your daily routine and expand your contact list and making new friends... that is always positive!!

My first secondment was in London at Queen Mary University in a chemistry lab. Imagine a biologist in a chemistry lab! The first few days were funny, well at least for me. I was so afraid of damaging something or doing some stupid error that I stayed attached to one of my colleagues, asking him the silliest things ever! Changing environment can be challenging and scary, you don't know where to find the tools and moving in the lab was tricky due to the difference between a chemistry lab and a biology one. I maniacally asked if I needed to do things in sterile condition and was so strange to me not to use a biological hood and sterile solution but this is the beauty of this kind of experience, they let you see and discover other way of working, other facets of science that otherwise you would never discover.

In all my insecurities and doubts, my new colleagues were amazing always ready to follow and help me... not that I gave them too much choice since I tend to shadow people when I want to learn things that I'm not confident with! I practically stalked them in all the lab!! Above all I think that this kind of experience really help you in changing your work approach, seeing it three-dimensionally and from different point of view taking into account and exploiting also others works and efforts giving a solid base for a joint and wide project.

I really appreciated all my stay in London, I appreciate the freedom and trust that all the team showed me giving me task and completely integrating me in!! Of course I highly appreciate also the free time that I had to visit London, a breath-taking city that I already knew but that never end to amaze me!!

Eleonora

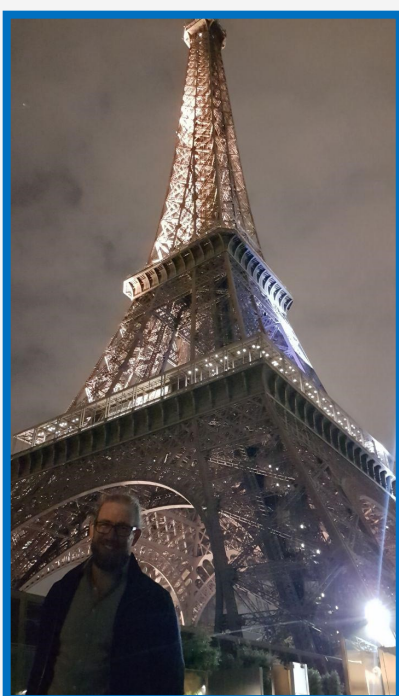
From Innsbruck to Paris

An article by Patrick Quoika, ESR

In the fifth month of my PhD, meaning after having spend four months in Innsbruck, my Secondment at Sanofi in Paris started. Since I had four very nice first months in Innsbruck, it was sort of a bittersweet timing for me to go to Paris at this early stage of my PhD already. On the one hand I was very curious and excited about the new project, the new group and the new city, but then again on the other hand staying in Innsbruck would have promised to be a nice time as well.



Ele and Alena in London



Patrick Visiting Paris

The change in environment was quite noticeable. By that I mean twofold: Moving from Innsbruck, a modest city in the Austrian Alps, to Paris, the world-known french Metropolis, made quite an impression on me. Furthermore, the transition from a very young group at a university, to a group of experienced researchers in pharmaceutical industry brought some distinct differences with it. During my time at Sanofi, I learned a lot about the daily life of a researcher in industry. I believe this experience will be of importance in my future career.

Having lived in Paris for several months, I still have not seen all the magnificent sights in and around Paris. And I really put an effort... This culturally rich city really has a lot to offer. Many arts museums, historical buildings, even the Parisian catacombs(, which I would strongly recommend to visit!) kept me busy on my weekends there. During my time in Paris, I also developed to be quite a professional passenger in the Parisian Metro, which is not as easy to master, as you may think. Now, back in Innsbruck, the Metro is not amongst the things which I miss the most. It is more the atmosphere in the streets and at the Seine, which will make me visit Paris again.

Patrick

From humans to molecules: my short visit to Pharmjet

An article by Sara Bernardo-Castro, ESR

After 6 months working for the NANOSTEM project at CHUC, my first secondment arrived in June 2019 in a short visit format. I had the opportunity to go for fifteen days to learn new things at MJR PharmJet to work with Dr. Nazende Günday Türeli's group. To start this adventure, I had to travel all the way from Coimbra, Portugal to Überherrn, a little village in the very south of Germany. Once I was there, I quickly started with work. The first thing I had to do before stepping into the lab, was to pass the



View from Aussichtspunkt Cloef in Saarland

SOP tests. This was the most challenging thing to do, since these tests were in German! But, luckily for me, everyone at MJR was really nice and patient, and help me translate and understand. I felt very welcome since minute one. Once the SOPs were done, I had the opportunity to go into the lab with the NANOSTEM ESR at MJR, Sonia. Everything was incredibly interesting for me because I've never worked in a pure chemistry lab before! This secondment helped me really understand the nanoparticles world. Since my role in the NANOSTEM project is the human part, I had no contact with the nanoparticles until I got to MJR, and it was amazing to really understand the procedure and the mechanics on what we are making. I learned a lot working in the lab along with Sonia; since the different ways to create the nanoparticles to its characterization via DLS. But not everything was work, I also had the opportunity to visit a little bit of this part of Germany, since the beautiful little city of Saarlouis to incredible nature places such as Aussichtspunkt Cloef.

Staying at MJR was an incredible experience that helped me understand the chemistry part of the NANOSTEM project, but also gave me a brief experience on what is like to work in an industrial company, something very different from what I'm used to.

Sara

1st network wide event July 19 - London

1st NANOSTEM Scientific Meeting and Training School

An article by Francesca Tomatis, Georges Kiriako, Eirini Epitropaki and Patrick Quoika, ESRs

When the morning of the first scientific presentations approached, we all felt partly excited, partly nervous, but partly also very curious. Surely, we all chatted with each other before, what the other is doing, but then again how well we actually knew varied a lot. One knew pretty well what another particular ESR did, but nobody really knew what every single other ESR was working on. Naturally, all of us had many other responsibilities, so - as always - everybody wished to have had a little more time to prepare for their talk. But well, perfectionism never ends... All the ESRs felt nervous, not only because they needed to deliver a presentation, but also because all the present PIs, as specialists in the field, will listen closely and of course nobody wanted to leave a bad impression.



The NANOSTEM ESRs hanging out after their talks

In the end the presentations were very interesting, even more very helpful in many cases. All the ESRs with different backgrounds, gave a good representation of the goal they want to achieve through the project and updated the whole network on their recent findings and enlighten everyone on subjects beyond our domain. Getting feedback from different people from different labs from different backgrounds can be inspiring and even eye-opening in some cases. Having heard all the other ESRs talk about their science helped us to see connections between projects we did not see before, understand the general progress, but also to connect the puzzles to the bigger picture of NANOSTEM.

So, someone might say that the presentations were the main ingredient to a successful recipe. Even though the meeting acted as a catalyst by bringing all the ESRs and PIs together and binding us as a team with a common goal, the realization that this is a multidisciplinary project kicked in: the presentations took place in a terminology not always familiar and we got an idea of how confined our knowledge really is. This is something that all of us need to consider and improve in the future, even the PIs, since we are here to benefit from each other's expertise and to enhance our productivity by communicating better in order to work together more efficiently.

An impressive aspect about the Scientific Meeting was the discussion with the PIs of all the network. In-

deed, it has been amazing noticing that the professors were carefully listening to all the presentations. At the end of each speech they asked to clarify some parts of the projects, but their questions were also suggestions for the students, an input to deepen some characteristics or investigations. Moreover, the discussion with the PIs did not finish with the end of the presentations, because each ESR had also some time to speak about the project with a panel of two professors. In this particular moment,



The NANOSTEM ESRs after the final session of the event

students got advice and reassurance about results or timing when necessary and got the scientific input needed to adjust or promote their project accordingly. This panel meeting had a great effect not only because scientific leaders reviewed your progress, but they provided great feedback in order to create a better research plan. These two ways to interact with the PIs represented wonderful opportunities for the students to obtain opinions about their project from different researchers than their supervisors and above all from experienced scientists. The Scientific Meeting allowed the ESRs to go back to their labs with more ideas and sparks for future experiments.

A very special point of view about the Scientific Meeting is George's one: "As much as I wanted to attend the network event in London, circumstances did not allow it. However, I was able to attend the first two days through skype thanks to Dr. Castilla and it was better than I expected. First of all, I got to know more about the program by attending the presentation delivered by Prof Resmini which allowed me to have a better idea of the regulations, secondments and future workshops. Second, I got to meet all the ESRs and attended their presentations on their research projects and their Ph.D. experience which gave me hope and motivation since I just joined the program. Finally, I got to share my own experience in Sweden with everybody and deliver a presentation on my research project and what experiments I will be doing in the next few months. All in all, the experience was pretty nice even though I got to do it by skype. I can't wait until the next workshop to meet everybody in person."

It has been an important and necessary moment of discussion that helped everyone to better understand the work of all the involved people, to set collaborations and to organize the secondments. After this meeting in London, we are all looking forward to the next meeting in Coimbra. We did not only learn much about the science which is happening within the network, but we also got to know the others ESR even better. Therefore, we are all intrigued about the progress of the others and their projects, and excited about the collaborations that can derive within the network.



Francesca

Eirini

Patrick

Georges

Organising the 1st NANOSTEM training school

An article by Federico Traldi and Roberta Bilardo, ESRs

Finally, after the first encounter with all the Nanostem ESRs during the meeting in March, it was time to gather once again in London to attend the first Nanostem summer school. This was an opportunity for not only strengthen the friendships that we already had created, but also to have a more detailed insight into everyone's research topics and latest results.



1st NANOSTEM Training School
(Workshop on Nanogels)



It comes without saying that there was quite a lot to organize here in Queen Mary. The meeting would have commenced with two days of presentations from all the ESRs involved in the project, followed by the remaining three days of training sessions, lectures and laboratory experiences. Alena and Roberta and I (with the precious help from Dr Ana Castilla), not only had to buy food and drinks for coffee breaks, design the experiments for the practicals and make sure that everything was running smoothly during the week, but also prepare our own presentations for the first two days. In all of this, I had also an extra task. The last day of the summer school I was supposed to fly to ILL in Grenoble and perform experiments over the weekend. Therefore, I had to prepare special polymers designed for the occasion. The stress was at the top and in the previous two weeks all of us gave our best to make this experience the most profitable for all the ESRs.

Organizing the summer school with the help of Ana, provided us some useful skills. The part we enjoyed the most was the design of the experiment for the visiting ESRs. We were required to develop experiments that could teach some of the properties of nanogels but still be easily performed by Ph.D. students coming from other backgrounds. Considering the big number of ESRs joining the session, all the experiments would have been performed in the department's teaching laboratory, where we couldn't use our routinely instrumentation. In one word, challenging! This kind of activity turned out to be very useful to improve our planning skills, and we are all looking forward to seeing what the ESRs in Portugal will come up with for the next summer school in Coimbra.

Federico & Roberta

MC14 Conference - Birmingham July 19

An article by Eirini Epitropaki, ESR



14th International conference on materials chemistry (MC14)

8-11 July 2019, Birmingham, United Kingdom

One of the most renowned conferences was held this year in Birmingham in July 2019. The 14th International conference on materials chemistry (MC14) has been a key meeting in the materials calendar for two decades and is the flagship event for the RSC Materials Chemistry Division. It was a great privilege to be able to attend an internationally renowned symposium on material chemistry. I was able not only to expand my knowledge with presentations of top scientists in the field like a Noble prize winner Professor Sir J. Fraser Stoddart, but I got to know a lot of people from different domains in material science. I also had the chance to make to new friends and reunite with the old ones.

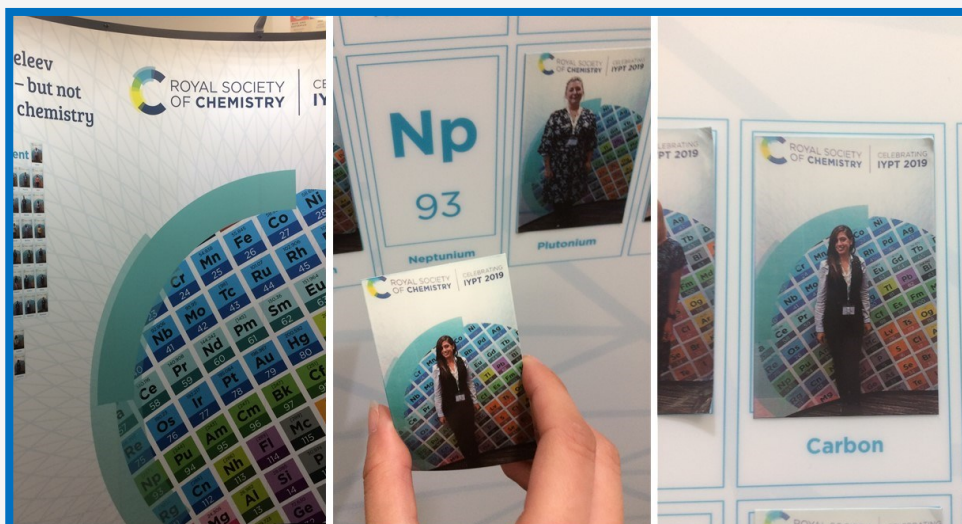


Left: Plenary talk from Professor Sir J. Fraser Stoddart, Northwestern University (USA); Right: Career Management early career researcher session.

Because material chemistry covers a big spectrum of knowledge, the presentations were divided into 4 theme categories: **Magnetic, electronic & optical materials, Energy & environment, Nanomaterials & porous materials and Soft matter & biomaterials.** Each parallel session had its own identity but through the plenary speeches you couldn't argue that all materials are connected and correlate with the basic sciences:

chemistry, physics, mathematics and biology.

The options of this multidisciplinary conference were unlimited as you could learn about new chemistries and engulfed them into your research, seek collaboration opportunities, create new career aspects and socialise with representatives of major chemical companies and editors, so you could determine which skills are preferable in industries and scientific magazines. Apart from the options above, special sessions were induced for the early career researchers on how to network effectively, how to publish on high impact journals, how to recognise their transferable skills and tips in order to apply for research grants. Interesting ideas and experiences were shared in this sessions and career advices from some of the top scientist in their domain. The notion that I found the most valuable and inspiring in these sessions, was that even if the science you are involved right now is not that appealing to you, you can always find an alternative way to be more involved and project ideas that can engulf the research you want to study about. Hopefully through this Marie Curie program I will be able to explore the biological aspect of the drug delivery systems as well.



Finally at the closing remarks of the conference, after an inspiring plenary talk from Professor Nicola Spaldin titled ‘New materials for a new Age’, the chair of the conference (a.k.a. my supervisor) Professor Rachel O’Reilly summarised the research innovations explored in this conference, thanked all speakers for their attendance and their hard work and con-

Become your element activity

tinued by announcing the poster prize winners. The poster judgment was incognito, since nobody was keeping notes or scores but cell phones like everyone else, so you couldn’t actually identify if someone is examining you or is just interested by your work, which I found pretty smart and innovative. My overall experience from the conference was positive, since I learned a lot of new things and got the chance to get acquainted with some of the leading scientists on material chemistry. Hopefully next time I will have enough results to present to an international conference like this one, but for now I had a great experience, made a lot of new friends and got an attendance certificate as it can be seen in the photo.

Eirini



Become your element activity

CRS Meeting - Valencia July 19

A great experience in the annual Controlled Release Society (CRS) meeting!

An article by Sonia Lombardo and Elisa Jiménez-Moya, ESRs

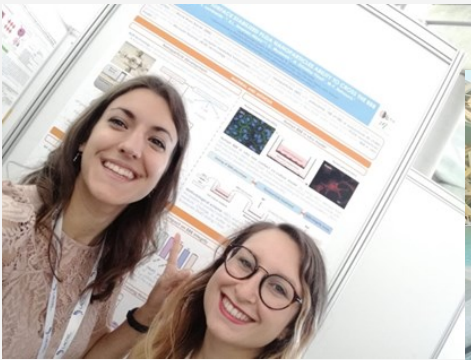
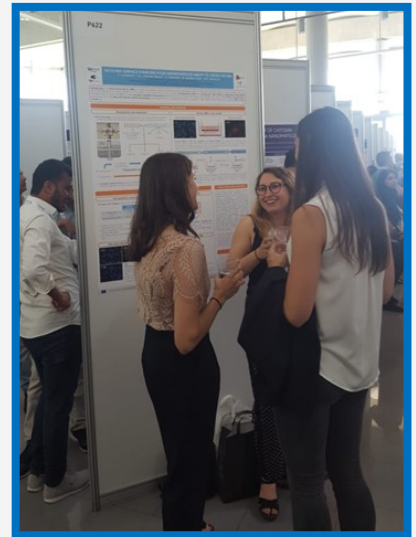
To finalize an outstanding first year of PhD in the NanoStem Project, both of us, Sonia from MJR Pharmjet and Elisa from the University of Artois, had the wonderful opportunity to participate in the 2019 Annual Meeting of the Controlled Release Society (CRS) where we presented a poster about our latest results. Our fellow ESR, Eleonora from University of Artois also got the chance to attend and joined us though this adventure.

The CRS conference was held in the Palacio de Congresos of Valencia in Spain, that was awarded in 2018 as one of the best world convention center. The congress lasted from July 21st to July 24th, therefore a very nice weather accompanied us through these days. Plenty of talks and workshops were offered every day in different venues. We started these big confer-



ence days on Sunday 21st at 7:30 am by attending a workshop called “Young Scientist Professional Development: Enhancing your network and communication skills”. This workshop was an amazing opportunity to learn more about different professional experiences from successful fellow young scientists, and to work on our networking and communication skills. We could profit from interactive exercises with other young scientists about how to pitch projects and communicate efficiently your messages in a short time, by training to shorten our pitch from 60 to 15 seconds.

This day we also had the wonderful opportunity to listen to Molly Shoi-chet, who was awarded in 2015 by the L'Oréal-UNESCO Awards for Women in Science, due to her work on regeneration of nerve tissue, and in developing direct drug delivery methods for the spinal cord and brain, using novel materials. Her talk was called “Can we really regenerate brain tissue with controlled protein delivery?” and the answer was yes! After this, the conference offered sessions with short talks about very current topics like “Regenerative medicine: responsive biomarkers and cell therapies”, “neurological disorders and chronic pain”, “oral delivery” or “problem solving”.



“Regenerative medicine: responsive biomarkers and cell therapies”, “neurological disorders and chronic pain”, “oral delivery” or “problem solving”.

On Monday 22nd, a wide variety of sessions were offered like “Global health and neglected diseases”, “Immuno delivery” or “Where to move next? Academia or

industry?”. An outstanding debate between Prof. Patrick Couvreur and Prof. Kinam Park about the progress made on the field of nanotechnology was held during these last few years and of the possible progress that will be made in the years to come.

Tuesday was our big day at the poster session! After finishing some very useful sessions related with our research project like “Crossing challenging biological barrier” or “the importance of a rational design: carrier, linker, cargos”, we presented our poster and answered questions from bystander fellow scientists. This was a first experience for both of us and it was an amazing opportunity to exercise our communication skills. This night was the CRS closing reception, which was hosted at Ciudad de la Artes y las Ciencias, where we enjoyed delicious appetizers and drinks inside this spectacular building designed by Santiago Calatrava that represents the eye of wisdom.

In conclusion, the 2019 CRS Annual Meeting was a great opportunity to enrich and reinforce our knowledge, communication skills, and networking skills. In two words a “wonderful experience” to close our first PhD year in the Nanostem project.

Sonia & Elisa

NANOSTEM Outreach and Social Media

Promoting the NANOSTEM ITN social media

An article by Alena Vdovchenko, ESR

A few days ago, I was fortunate enough to participate in a workshop organized by QMUL, where in addition to scientific lectures, there was very interesting talk on the topic “How to promote your research on social media”. Indeed, over the past year, I realized that It is very important not only to understand and carry out your research, but also to be able to describe what are you doing to a wide audience. The great thing is that NANOSTEM gives us many opportunities to practice.

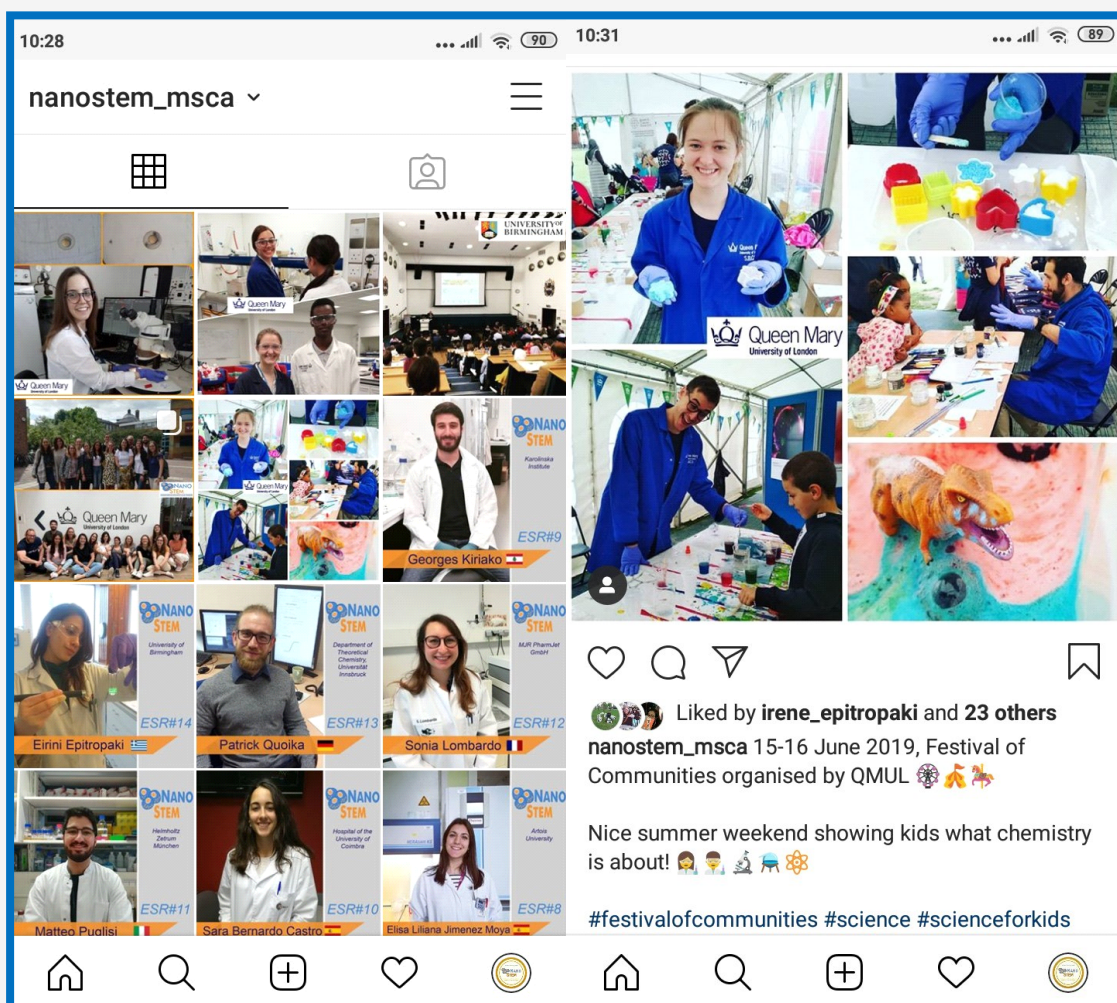
After the first NANOSTEM workshop, which took place in March, we created several accounts on popular social media where we planned to publish some news and interesting facts about the NANOSTEM project. We started with Facebook, Twitter, Instagram, LinkedIn. Of course, all these social networks target different audiences, and it’s great that you can practice to highlight the project from different angles. At the moment, most attention is paid to our Instagram account, probably because it is easier to catch this attention with bright pictures and descriptions full of emojis.



A great boost in our activity on social media was observed after the 1st summer school, where we discussed problems and new ideas on this matter. A group of four brave ESRs took the initiative to create a

NANOGRAM committee (but we are responsible for all social networks, not just Instagram). Now we are working on the implementation of several ideas on how to attract an audience and make our accounts interesting and useful. Well, I hope that we all will see results in the near future, but in the meantime, follow us on social media!

Alena



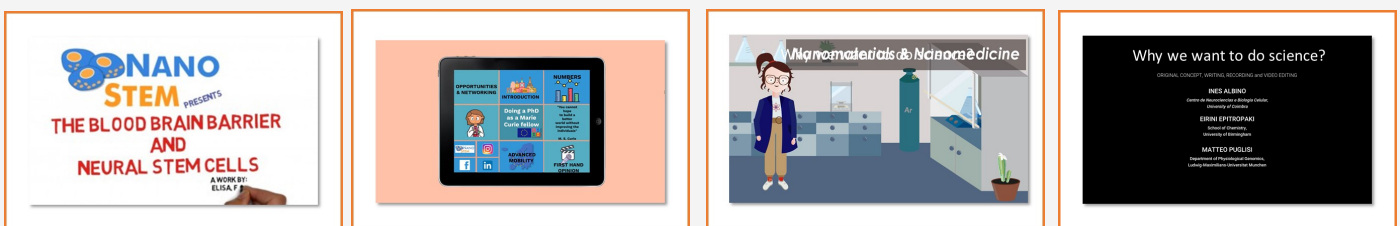
The outreach videos making-of

An article by Elisa Jiménez-Moya, Inês Albino and Sonia Lombardo, ESRs

NANOSTEM productions introduce:

- ◆ The Blood Brain Barrier and Neural Stem Cells
- ◆ Nanomaterials and Nanomedicine
- ◆ Doing a PhD as a Marie Curie fellow
- ◆ Why do we want to do science?

Hello, everybody! After the first NANOSTEM workshop in London, the ESRs were challenged to produce four different outreach videos. The videos had for goal to introduce the scientific topics studied in the NANOSTEM program in an accessible manner. Two videos were also made to encourage young generation to pursue a career in science and to increase awareness about the great opportunities offered by the Marie Curie fellowship. All the of us were divided in groups of three or four, and four months were given to complete this task. The challenge began!



As you may have guessed, none of us had any knowledge on how to make videos... but we had a head full of ideas! Thus, all groups started brainstorming really hard about how to make one, specially, how to make it look good! It is probably an understatement to say it was not an easy task. Writing the script, finding the right software, working on our acting skills, recording the voice-over, animating, editing... was a long way through. Nevertheless, we learned on the spot while working together and exploring the group creativity. We could not have imagined that this would turn into a funny and excellent opportunity to bond closer together.

Hence, videos with very different styles were produced by each of the groups. When discovering all of them in July during the NANOSTEM mid-term check meeting in London, we were all very surprised by the results of the other teams and quite proud of all our hard work. We are now very excited to publish them on the NANOSTEM website and on our social media. We hope that these videos will be useful for people wanting to learn more about science and, hopefully, give them inspiration to give it a try themselves! If you have not seen the videos yet, the four of them are available in the outreach section of the NANOSTEM website by following the link:

<https://www.nanostem.qmul.ac.uk/outreach/>

Enjoy!

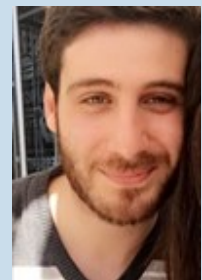
Elisa

Sonia

Inês

QUICK NOTE

to welcome Georgios Kiriako to the NANOSTEM team. He joined the Karolinska Institutet in June 2019 to start his PhD. He will tell us more about himself and share experiences of his first months as an ESRs in the next issue of our newsletter.



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ANNO 1810
Karolinska
Institutet

Forthcoming events

Network events



- © NANOSTEM Joint Training School—France (dates TBC)
- © 2nd NANOSTEM Scientific Meeting, 12th— 14th July 2020, Coimbra
- © 2nd NANOSTEM Training School, 15th –17th July 2020, Coimbra

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