

Maastricht workshop, May 2018



Welcome to the fourth EVOLuTION newsletter: The secondment special

Over half the students have completed or are currently on their secondments, thus we thought we would devote this issue to their experiences as it is such a defining feature of a Marie Curie Innovative Training Network.

In the following pages you can read about Sanne, Laura and Antonino's secondment highlights. Sanne returned to Maastricht, where she originally studied as an undergraduate student. Laura had a productive time in Dublin, ending on a high, where she presented a poster at the Keystone Symposium. Antonino, our first ESR to take on the secondment challenge also describes his adventures and experience in London. Our newest ESR recruit, Tipparat (aka Bim) has also written about starting her PhD and a new life in London. Finally, Chiara has given us a great summary on the Maastricht workshop that took place in May, when the EVOLuTION consortium gathered in Maastricht for a week filled with inspiring research talks and thought provoking workshops. The week in Maastricht concluded with the mid-term review meeting, where the Coordinator and ESRs showcased the fantastic research that EVOLuTION has done in the first reporting period to the European Commission's Project Officer and External Expert.

Upcoming events in 2018 and 2019

- EVOLuTION Summer School II: 10th – 14th September 2018, London and Reading.
- Annual meeting 2019, 20th-21st May 2019, Coimbra, Portugal

Save the Date

EVOLuTION conference
9th-11th September 2019
Munich.

Maastricht



Sanne Maas revisits her old haunts, pg 4

London



Man about town - Antonino in London, pg 5

Dublin



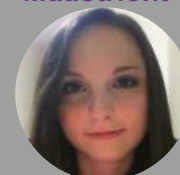
Laura's stay in Ireland, pg 6

London



London life for Tipparat, pg 7

Maastricht



Chiara's update on the Maastricht workshop, pg 8

EVOLuTION Update



Coordinator's message

Dear ESRs, Colleagues and External Readers,

It is an exciting time for EVOLuTION as we have reached our mid-term point (our ETN started in April 2016). Together with the other beneficiaries, it was rewarding to receive a very positive outcome from the EU Officer and the External Referee on the way EVOLuTION has been progressing on its main pillars of training, science and impact, as presented at the mid-term review which took place in Maastricht, as you will read in other sections of this Newsletter. We now have the task to deliver the project to completion! I am confident that the qualities we collectively displayed over the past two years will take us to satisfy our main objectives, with cutting-edge science, top class training and a cohort of ESRs who will be ready to enter the competitive world of the EU and beyond. I look forward to this exciting phase with a strong sense of optimism as EVOLuTION will leave its legacy even after its end! Many thanks to all who contribute to this network. I trust you will enjoy reading Newsletter no. 4.



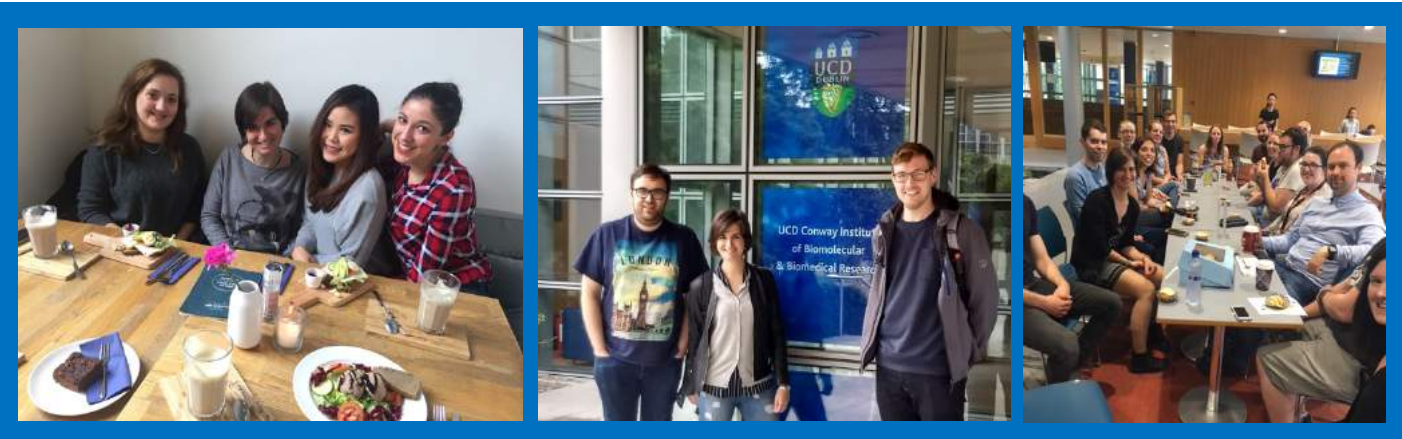
Best wishes Mauro

Consortium News

- To provide an opportunity for the ESRs to attend the ESCI (European Society for Clinical Investigation) meeting, the EVOLuTION annual meeting in 2019 will now take place in Coimbra, Portugal on the 20th and 21st of May.
- The periodic report was submitted in April 2018. We are currently awaiting feedback from the external expert, however, it is likely the report will be approved in the next few months.

Outreach and Dissemination

ESRs and PIs have attended a number of conferences relevant to their fields of research this year including the Keystone Symposium on the Resolution of Inflammation in Health and Disease in Dublin, which was co-organised by Prof Perretti and Prof Godson. The ESRs that attended were Laura Menke, Silvia Oggero and Antonino Cacace. Laura and Silvia presented posters, you can read more about the conference in Laura's article on pg 6.



ESRs on secondment, from left: Monika and Silvia with Ploi and Angelina in Maastricht, Antonino, Silvia and Jan in Dublin, Silvia, Laura, Jan and Catherine's lab celebrating Antonino's birthday.



Silvia was awarded a bursary by conference organisers to attend the World Congress of Basic and Clinical Pharmacology in Kyoto. Monika has also recently been awarded a QMUL travel bursary and will be travelling to Boston in a few weeks to present her poster at the prestigious American Chemical Society meeting in August. Finally, Chiara will be giving a talk in September at the 10th International Conference on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide in Oxford.

Monika and Laura have been taking part in the Springboard Women's Development Programme and have attended a series of workshops which aim to get women to enhance their own skills and abilities, challenge power and equality, while building confidence, assertiveness and a positive image.

Laura has also been involved in QConsult, an initiative organised at QMUL where she was selected from 55 applicants to work in a multidisciplinary team with four other postgraduate students on a consultancy project to investigate the link between mental health and job satisfaction. The work generated will be the foundation for a 'ground-breaking' report that will be launched in 2020.



On June 13th, the Diabetes Complications Research Centre (DCRC) based in UCD together with Diabetes Ireland hosted an event named "Patient Voice in Diabetes Research" organized by Dr Fiona McGillicuddy, Dr Neil Docherty and Prof Catherine Godson. Diabetes patients and their families were invited to join researchers in the diabetes complications field and together discuss how research could better address patient's needs. Patients groups were asked to address specific questions and responses of these discussions were recorded by rapporteurs from the research community. These questions included how patients could be more involved in research. The feedback from the event was overwhelmingly positive and it was a successful night for both sides, as patients enjoyed giving their opinion and felt involved and taken into consideration and on the other side researchers came out with plenty of new ideas and new targets to address.



From left: Dr Neil Docherty, Dr Fiona McGillicuddy, Prof Catherine Godson, Prof Donal O'Shea, Dr Orina Belton



Researchers listen to the Patient Voice

Back to where it all started

Secondment from LMU, Munich, Germany to
UMA, Maastricht, the Netherlands

On the day of moving from Munich to Maastricht, it felt like a déjà vu. Eighteen months ago I was also waiting for the train, which would bring me to my new home. However, back then I did not know what to find after my 7-hour train ride. Now I was travelling exactly in the opposite direction. I packed the same two suitcases. The difference; I knew what I was going to find at my next destination. I know Maastricht well, really well. This is the city where my academic career started. I left Maastricht to make Munich my new home, which it definitely became, but I was looking forward to spending a few months where it all started, my old home, Maastricht.

And it did feel like coming home. Just a few hours after arriving it was time to meet my EVOLuTION family. Six out of eleven EVOLuTIONERS were present, our Maastricht based colleagues Jan, Angelina and Ploi and Monica, Silvia and me for our secondments. That night we joined a Greek dance workshop, some of us more talented than the other, but overall a fun activity.

On Monday it was time to start my first day in the research group of Prof. Erik Biessen, the Principle Investigator of the Experimental Vascular Pathology Group. During the preparation of my secondment we came across a problem. I planned to do phage display; however, the ethical approval needed to execute this technique was rejected therefore we came up with a new plan. Dr. Marjo Donners, Mat Rousch and my fellow ESR Jan helped me with my experiments during my stay in Maastricht and made me feel very welcome. It was very helpful to learn more about macrophages, since I work mainly with endothelial cells and my lab mostly studies neutrophils.

Other ESRs may experience a culture shock during their secondments. Conversely, this was not the case for me. I was born and raised in the Netherlands and achieved my Bachelor and Master degree at Maastricht University. I even came in contact with science in this city, while performing my Bachelor internship at the department of Human Biology. It was nice to be back in my home country.



I knew that people were going to be direct, like I am myself, which in my eyes has advantages and disadvantages. Food-wise, I have to admit that the Netherlands may not have the best cuisine, but I am a big fan of ‘bitterballen’ and ‘vlaai’ and secretly I miss Dutch bread living in Germany.

Nonetheless, I learned many things during my stay in Prof. Biessen’s lab and I really enjoyed my secondment. I developed new lab skills, but more importantly I gained more experience overall. It is interesting to start somewhere new and come across small problems like not being able to find the eppendorfs, but also bigger challenges such as setting up new experiments with a cell type I am less familiar with. Furthermore, I really enjoyed the opportunity to work in a new environment, with new people leading to networking and building new relationships.

Looking back on a great secondment, I would like to thank Prof. Biessen and his lab for their hospitality. I do not say goodbye yet, because maybe one day I will travel back to the city where it all started.

Article by Sanne Maas

My secondment in London

An intense and fantastic, working, living and learning experience

London has always been a life's dream for many people. The city itself is unspeakably fascinating and it's easy to get lost in its vibrant atmosphere. That's why I was really excited to fly in for the Summer School and after that join Prof Perretti's lab at Queen Mary University of London for my 4 month secondment. It wasn't my first experience in the city, as I previously visited London in 2013, but I've always been curious about life in a huge metropolis. Also, being the first ESR going on secondment put a little bit of pressure on me and I kind of didn't know what to expect. Prof Perretti's lab is located in the John Vane Science Centre, on the Charterhouse Square Campus, a quiet, nice place in the City. The institute itself is big and full of equipment and facilities, with some of the best and newest technologies available. At my first day of work, I was given a very warm welcome: everybody was very kind and helpful and I managed to make new friends and meet a lot of new people.



During these months, I was able to test 2 synthetic Lipoxin mimetics, agonists of FPR2, in two different acute inflammation animal models: a Zymosan-induced peritonitis and a Caecal Ligation and Puncture Sepsis mice model under the supervision and with the collaboration of Dr Jianmin Chen. Thanks to her help I managed to get some very good results that we hope will contribute to the development of new drugs. As part of my secondment

I also spent some weeks at William Harvey Research Ltd, a private company specialized in Preclinical



Contract Research, directed by Prof Chris Thiemermann, one of the most cited pharmacologists of the world. They introduced me to the secrets of contract research and showed how the company works in terms of marketing strategy, customer service and workflow. It was my first experience in a private company and I really enjoyed it. Furthermore, I took part, as an audience member, in two amazing symposia: The William Harvey Day 2017 and the CITI Launch Symposium, featuring some of the best minds in Europe in the inflammation field, like Prof Alberto Mantovani, a pioneer in humoral response to cancer, and Prof Antal Rot, an expert in the immune system and infection.

Although 4 months seems to be a lot of time, those days really flew away and I must confess that sometimes I miss London. It has surely been an unforgettable experience both from a human and scientific point of view. I look forward to this September, when I'll be back again for few days for another wonderful time of learning and fun at the next Summer School.

Article by Antonino Cacace



Eicosanoids and the Emerald Isle

Laura writes about her experiences working at the Conway Institute, UCD, Dublin

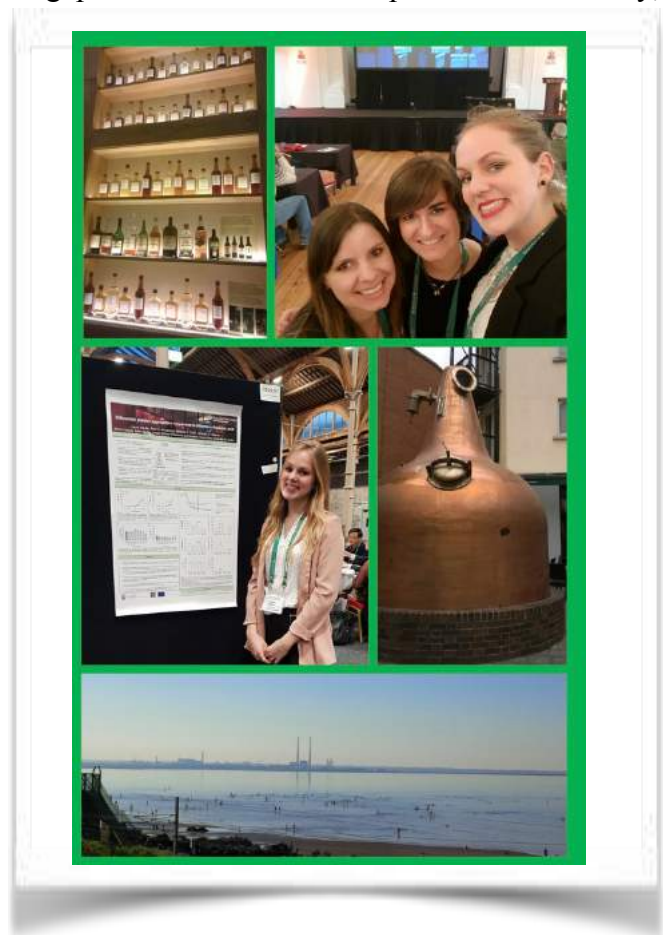


At the beginning of this year, I spent three months in Dublin as part of my secondment in the lab of Catherine Godson at University College Dublin. During this time, I performed proteomic analysis on platelet releasates following activation and stimulation with different omega-6 fatty acids under the supervision of Dr. Simone Macrone. It was a great experience to work in a lab abroad and the most valuable lesson I learned was to master a complex and novel technique under time pressure while experiments seemed to fail without any reason. In such situations it is important to stay calm and think about alternatives without getting frustrated or anxious (which wasn't easy for me)!

During my time in Dublin, it was the first time in years that it snowed in Ireland, and the university was closed for a week which gave me enough time to explore the city as a winter wonderland. Just in time

for Saint Patrick's day, the snow melted, and I spent an amazing weekend watching rugby, drinking whiskey and dancing to Irish music.

At the end of March and with that the end of this great experience, Silvia came to visit Dublin and we spent the last five days at the Keystone Symposium organised by Catherine and Mauro entitled "The Resolution of Inflammation in Health and Disease". It was a great pleasure to meet so many leading experts in this field including Charles Serhan and Matthew Spite. I have been reading their papers for years and was starstruck when I had the chance to finally meet them in person. Alongside the interesting talks about resolution of inflammation in different disease settings, we spent a lot of time networking with many people from both industry and academia from different countries, such as the U.S.A., Singapore and the Czech Republic. Additionally, I



had the great opportunity to present my work about the "Differential effect of DGLA on platelet aggregation" and got great input for my future work.

Article by Laura Menke

London Life

My first few months in the UK as a PhD student

My name is Tipparat Parakaw, ESR2. I am the newest PhD student on the EVOLuTION programme under the Marie Skłodowska-Curie Innovative Training Network. I finished both my Bachelors and Master's degrees in Thailand. I feel very privileged to have been given the opportunity to become one of the Marie Skłodowska-Curie students. On the 1st of



January, I took a flight from my country and spent the 2018 New Year celebrations in a country which would soon become my new home with the challenge of starting my PhD study at Queen Mary University of London. Studying abroad is extremely challenging, but at the same time

rewarding. When I first arrived here, I quickly noticed that London was one of the best choices for pursuing higher education, not only for its world renowned research but also because of the vibrant and lively atmosphere. I realised that balancing my studies with the glitz in the world's foremost centre of activity is an important career choice for me and also for other international students. Experts in my institution as well as students have done a fantastic job so far in positively encouraging me and boosting my enthusiasm in studying.

It has been 5 months so far as a PhD candidate and I am very much enjoying my research under the supervision of Professor Amrita Ahluwalia at the William Harvey Research Institute. Although I faced a difficult time at the beginning with adjusting myself in a new cultural society, I was extremely privileged to have very supportive colleagues, especially my supervisor who always gives me the best professional guidance. I have regular meetings with my supervisory team which helps me plan my week and serves as a platform to discuss any ideas or issues I may have. I feel supported and as a result very self-driven in doing my own research. Luckily, my PhD project is about nitrate and cardiovascular function and is closely related to my own interest and my



research background. Therefore, this serves as a great opportunity to broaden my knowledge and further develop my ideas to discover new dietary-based therapeutics for cardiovascular diseases.

The Marie Skłodowska-Curie scholarship not only provides me with an opportunity to strengthen my research skills, but has also offered me networking opportunities with experts in the field. I joyfully attended the EVOLuTION annual meeting in Maastricht, the Netherlands where I was trained in scientific knowledge as well as offered links to the pharmaceutical industry. I had a chance to visit the cutting-edge pharmaceutical research institute; LifeArc where I explored the advanced technology in the early stages of drug discovery. I also developed my communication skills working with young students by becoming as a STEM ambassador at Centre of the Cell, an initiative started by Queen Mary to engage the younger generation in the way science works.

Aside from the activities I engage in within my university life, I also started doing new things in London such as learning Scottish dancing, trying British



food and beers, and even enjoyed the royal wedding celebration with my friends. More importantly for me, I made fantastic friendships with all of the energetic and inspiring ESR recruits in the EVOLuTION programme. I can confidently say that this PhD experience is going to be a memorable period in my life.

Article by Tipparat Parakaw

Maastricht workshop 2018

During the first week of May, all of us ESRs gathered once again in Maastricht for the second EVOLuTION Workshop and Annual Meeting. The first day of the workshop, titled “Computational biology: modifying natural proteins into new drugs”, was held at the Maastricht University Hospital. Here, inspiring personalities from both industry and academia came together to instruct us on these two different but at the same time closely related topics. In particular, the PharmAbs Innovation Manager Nick Geukens gave us insights on how PharmAbs bridges academic groups and biotech companies in order to support their discoveries and innovative ideas in the development of antibody-based therapeutic and diagnostic solutions. Another brilliant example of successful cooperation between academia and industry that perfectly fits with the EVOLuTION ITN’s mission!

On May the 1st, we more closely looked at ongoing research in the cardiovascular field. The meeting was opened by Prof. Erik Biessen with an interesting lecture about the important role of macrophages in atherosclerotic lesions and his group’s research aiming at reprogramming macrophage phenotypes in the atherosclerotic plaque, thus providing new therapeutic opportunities. The day flowed smoothly alternating between research-based and technique based-lectures. An example of the latter was provided by Prof. Shane Ellis, who introduced us to state-of-the-art mass spectrometry technology and its applications in dissecting the molecular signatures of cardiovascular disease. This



incredibly optimized technique enables both a better understanding of the molecular basis underlying the pathological processes and novel, more accurate disease diagnosis.

The third day of the workshop took place a few kilometres away from Maastricht, at the Brightland campus (Geleen) where we had the opportunity to visit Basic Pharma. This young and fast growing pharmaceutical company, is an independent business that covers most of the drug production process: from development to licensing and manufacturing of a product. We had the chance to explore every corner of the Basic Pharma facilities and have a close look at how pharmaceuticals are created on the bench and finally prepared to reach the pharmacy.



Back to Maastricht, we had some recreational time participating in an escape room night. Locked in a room with a series of enigmas to be solved in order to escape, we proved once again to be a great team and we succeeded in opening the exit door in record time!

The last day of this exciting workshop took place at the Maastricht School of Management where we received training on exploitation strategy: how to transfer our innovative ideas or products from our bench to industry. On this day, we heard from Dr. Giovanni Zizzerini on how to strategically plan the exploitation of our research and we then presented our own key exploitation plans, receiving advice and tutoring from the expert. It was a very useful and exciting experience that started weeks earlier, when we worked together in groups to draft a brand new exploitation plan based on our research and ended with actual feedback on our work and how to improve it.

Last but not least, we closed our meeting with an excellent dinner that consolidated our collaboration and friendship. For this very successful EVOLuTION meeting, we all would like to extend a big thank you to Prof. Chris Reutelingsperger and Prof. Leon Schurgers from the University of Maastricht, our Project Manager Dr. Annabelle Scott and our Project Coordinator Prof. Mauro Perretti.

Article by Chiara Moretti

EVOLUTION PUBLICATIONS

- Eicosanoids in platelets and the effect of and the effect of their modulation by aspirin in the cardiovascular system (and beyond). Crescente M, **Menke L**, Chan MV, Armstrong PC, Warner TD. Br J Pharmacol. 2018 Mar 7. doi: 10.1111/bph.14196.

UPCOMING CONFERENCES

10th International Conference on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide, Oxford, UK, **16th-20th September 2018**
<http://www.no2018.org.uk/>

British Pharmacological Society Annual Meeting **18th-20th December 2018**, in London <https://www.bps.ac.uk/news-events/events/2018/december/pharmacology-2018>

Experimental Biology 2019, Orlando, U.S.A., **6th -10th April 2019**

14th World conference on inflammation Sydney, Australia **15th-19th September 2019** <http://wci2019.org/index.php>

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