

The ADVOCATE Project



Newsletter no.2: Summer 2013

The ADVOCATE Project

Our previous newsletter introduced you to the ADVOCATE project, and the scientific research that was being undertaken.

But who are our researchers?

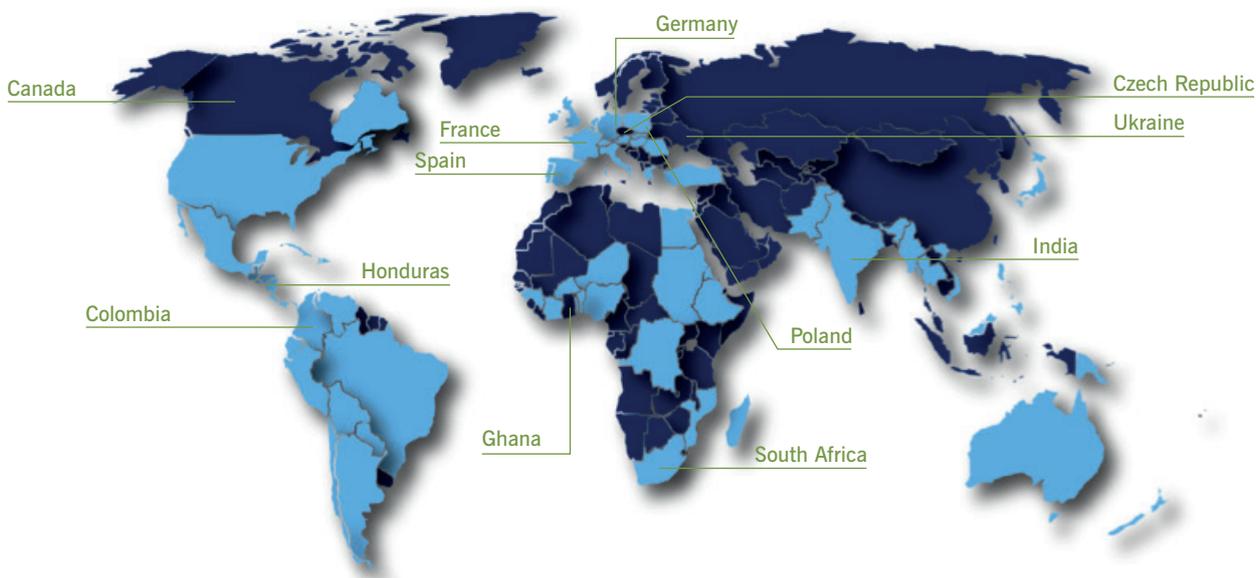
We would like to introduce you to our Fellows, and hope you enjoy getting to know them!

They are from: Canada, Colombia, Czech Republic, France, Germany, Ghana, Honduras, India, Poland, Spain, South Africa and Ukraine.

And the disciplines represented are:

Biochemistry, Biotechnology, Chemical Engineering, Environmental Engineering, Environmental Geoscience, Environmental Studies, Geology, Microbiology, and Water Management.

The multidisciplinary nature of our team ensures we will successfully develop the aims of the ADVOCATE project, to find innovative in situ remediation technologies by optimising resource investment in environmental restoration whilst considering technical, social and economic factors.





Alice Badin (University of Neuchatel, Switzerland)

Alice has always been concerned with environmental issues, and she was touched particularly by the nuclear catastrophe that occurred recently in Fukushima. A part of her heart is in Japan as her grandmother and aunt still live there, and she realised that what was important to her was to contribute to the protection and cleaning up of the environment.

Alice studied chemistry, and she realised that chemistry was also often the cause of environmental pollution. She became determined to find a job which found answers to such issues, and was delighted to find the Marie Curie Fellowship advertised for the position in environmental chemistry on the website of the Swiss Federal Institute for the Environment (FOEN). It was exactly the sort of thing for which she was looking, offering the possibility of researching groundwater contaminants at the CHYN (Centre d'Hydrogéologie et de Géothermie de Neuchâtel) but also giving the chance of experiencing the decision making world, through the possibility of a secondment at FOEN. "This is to me an advantage of being a Marie Curie Fellow, that it links academic research to decision makers and private sectors", says Alice.

Through her studies Alice is gaining an insight in the field of stable isotopes used in chlorinated solvents, as well as technical skills in the laboratory. Of course, all the training through the project network can be added to her skills portfolio. She is learning much about how decisions are made through her secondment at the FOEN, and how the law is applied in the context of contaminated sites in Switzerland. She feels that she is now able to understand



Alice preparing for sampling

the technical questions which need to be solved in order to better characterise sites and therefore make a better choice of remediation strategies.

Alice is really enjoying being part of the ADVOCATE project, working with the mix of people from different cultures yet sharing many aspects of their lives. She is enjoying her research, but doesn't think she will stay in academic life. She is sure however that she will stay in the environmental field, because she is passionate about contributing as much as possible to environment protection for the earth's future.

Vidhya Viswanathan (EAWAG, Switzerland)



Vidhya out in the field

When Vidhya was doing her Masters course in her home country of India, she took part in an Erasmus Mundus project, and the multicultural experience opened her eyes to the rest of the world. This encouraged her to apply for the Marie Curie Fellowship, as she would be in a similar setting with people from diverse cultures that would help her grow as a person.

"For me research is not just about spending hours reading, writing and working on data but also interacting with people from different disciplines and learning from each other. The ADVOCATE project with its collaboration with Industry partners offered an ideal setting for my aspirations of working in research in tandem with industry", explains Vidhya.

Vidhya is enjoying the multicultural atmosphere of the ADVOCATE network, and describes herself as becoming "a 'world' person".

She is gaining exposure to different disciplines which has helped her to see the possibilities of multidisciplinary research. "The training workshops and summer schools have further widened my knowledge in not just my area of interest but also in those of the other Fellows", she says.

Like the other Fellows, Vidhya leads a very full life. "I try to maintain a good work life balance in general. It is difficult to describe a typical day in my life as it varies according to my work load: if I am working out in the field I could be out from 8 a.m. to 8 p.m. or even longer. Otherwise, in my typical working day I do some yoga in the morning and read some literature at home over breakfast and tea. Then work for around 9 hours during the rest of the day, sometimes at my work place or perhaps at home, depending on the task at hand. I am quite effective in working from home, especially when it comes to reading or writing papers (drowning in several mugs of tea)."



Vidhya in Grindelwald

Natalia Fernandez (University of Liege, Belgium)

Since her undergraduate studies, Natalia always wanted to undertake research related to Environmental Hydrogeology. She realised that the Marie Curie programme offered an excellent opportunity to pursue her aims, with benefits such as the training which is offered, the chance to be a part of an international multidisciplinary team, the competitive resources for carrying out research and the networking with Universities and private companies. All these advantages, together with the possibility of living a new experience in a new country, encouraged her to apply for her Fellowship at the University of Liege.

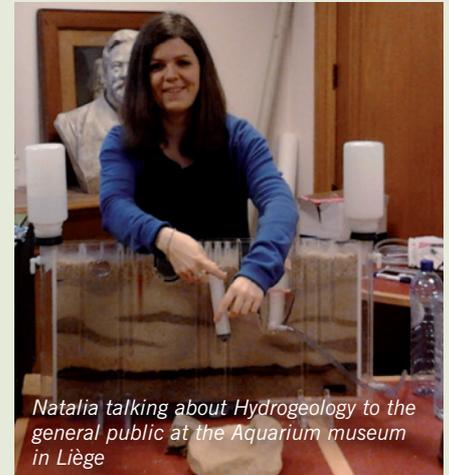
“I feel extremely fortunate to be part of the ADVOCATE project, as its multidisciplinary approach allows me to learn new things every day. Besides, I feel that everybody in the team is really supportive and personally I am learning a lot about our multicultural group! My experience is really surpassing my expectations”, remarks Natalia.

“From the research point of view, I feel that my project is interesting and challenging, and my motivation is increasing every day. One of the best things is that I am acquiring knowledge in fields different from my own knowledge background. In addition to this, life in Belgium is a new and an exciting experience. People here are really friendly and I am discovering really nice places.”

Natalia’s day depends on whether she needs to go to the field or not. During her fieldwork she often spends several days at a time on site, as it is not very close to Liège. Several activities are necessary, including preparing and carrying out the equipment and performing experiments on site.

“If I am not in the field I go to University at around 8:15 am. Work varies every day, and tasks include preparing experiments, reading articles or dealing with different people to acquire equipment. Some days a week I have a French course to enable me to improve my language skills; otherwise I spend my free time with my friends or doing sports. Until recently I was part of a music project with 20 singers so I was rehearsing once a week. Now that is finished, I might join a new project!” she tells us.

In the future, Natalia would like to follow a career in soil and groundwater protection and remediation. She would like to keep working within a multidisciplinary and international team, as she finds this satisfying not only professionally, but personally. She is also developing an interest in science communication, and sees knowledge transfer as a possibility, particularly in educating the general public and non-experts in the area.



Natalia talking about Hydrogeology to the general public at the Aquarium museum in Liège



Petra Hedbavna (University of Sheffield, UK)

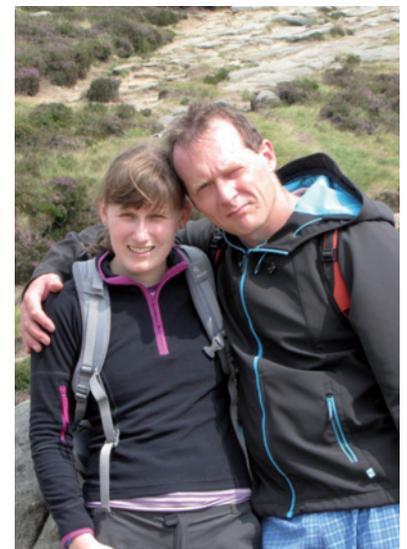
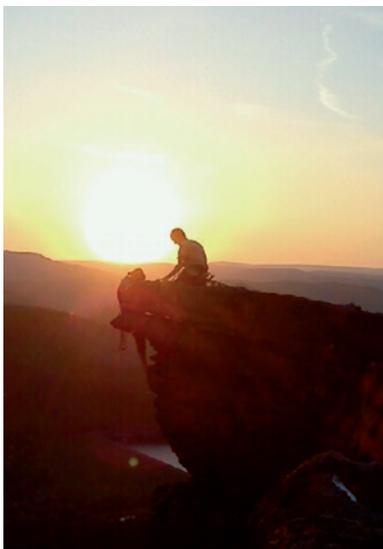
Petra’s initial background was in biotechnology, and although she had undertaken a Masters project on bioremediation the subject of her Marie Curie Fellowship project attracted her. The topic of microbial fuel cells enhancing bioremediation was new and fascinating to her, and she liked the idea of developing new technology for in situ application.

“I think the project more than meets my expectations,” Petra remarks. “I’ve been developing not only scientific skills but also soft skills. I’ve met lots of new people in the project - from academia and industry. And hopefully, I’ll have the opportunity to do my secondment in industry so I’ll get to know how things work in industry. The nice thing is that I get to know lots of different cultures within Europe. I think I’ll develop myself as a person capable of working in academia or industry.”

Petra would like to stay in the UK in a job which combines her strengths in chemistry, microbiology and bioremediation. She is not too bothered whether this will be in academia or industry, as long as it gives her the opportunity to be creative.

Petra climbing the Gargoyle Flake in the Peak District

Introducing her brother to the raw beauty of the Peak District



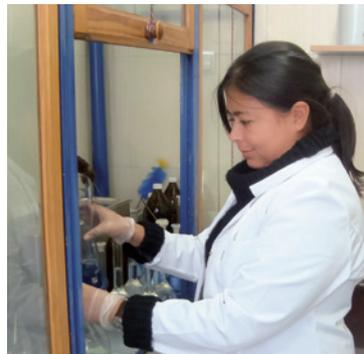


Johana Grajales (AGH, Poland)

“The Marie-Curie fellowship is meeting my expectations 100%. I am developing my career goals and at the same time I can do what I enjoy the most: travelling. It is building up a solid foundation for my research career.

“My working day starts at 7:00 when I wake up. Then, I take a shower, get dressed and have breakfast. I leave home around 8:30 and arrive at the office at 9:00. I start my day by checking and replying to emails. A typical day in the office includes reading about my research topic, writing papers and reporting to my supervisor.

“Around 11:00 I meet my colleagues for a cup of coffee and sometimes we also have brunch together. At 17:00 I finish my work and get ready to head to the gym. I return home at 19:00 and have dinner with my husband. After dinner I have time to read, watch a movie or go for a walk. Around midnight I go to bed and get ready for the next working day.

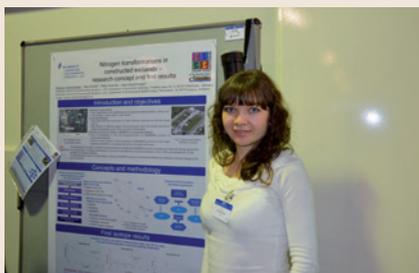


Johana in the lab

Every two weeks however, I perform lab experiments in Kielce where my ADVOCATE fellow Franklin is based. For the lab day I wake up at 5:30, get myself ready and head to the bus terminal. At 7:00 I take the bus to Kielce and arrive at the laboratory around 9:30. These are very busy days in which I have to prepare glassware, weight

materials and set up the experiment, analyze samples and afterwards clean glassware. Sometimes experiments don't go according to the plan, and I have to invest extra time to re-start an experiment. I usually return to Krakow by 18:00.”

Oksana Voloschenko (UFZ, Germany)



Oksana has had a dream right from childhood to become a scientist, and feels that the Marie Curie Fellowship has given her the best opportunity to pursue her dream. She is now at UFZ after studying in her home country of Ukraine, and is enjoying life in a new country. As well as broadening her knowledge of aspects of in-situ groundwater and soil remediation she is also taking language lessons as so many of the Fellows are and learning to drive. Her days follow the same packed schedule as we have seen, and she would like to carry on with an academic career, maybe concentrating on teaching in the future.

Oksana presenting a conference poster



Ruth Garcia (CL:AIRE, UK)

Ruth is our newest Fellow, starting in April as the Knowledge Transfer and Outreach Manager.

Originally from Spain, she finished a Chemical Engineering degree before obtaining her Doctoral Thesis on contaminated soil remediation. Before she came to the ADVOCATE project, she helped develop the Campus of International Excellence for the Efficient Management of Natural Hydrological Resources at the University of Extremadura, by setting up efficient mechanisms for the transfer of scientific knowledge, promoting creativity and a spirit of entrepreneurship among all those involved in the campus, and promoting and managing R+D projects opportunities, both for the business/industries and the University sectors, at National and International levels.

Ruth sees her job as “the pathway for amazing achievements in the framework of soils remediation with the help from the experience of the industry partners and the researchers that compose the ADVOCATE team”. She is just settling into her post, and is enjoying getting to know the fellow members of the team as well as improving her language skills. Eventually she wants to become an “extraordinary science communicator and transfer technology professional”, and is well on the way to doing so!



Ruth introducing children to science

Lukasz Cieslak (University of Sheffield, UK)



Lukasz exploring his new country (Science Museum in Manchester)

Lukasz is from Poland and now studying at the University of Sheffield. He graduated with a Masters degree in Biotechnology from the Technical University of Lodz (Poland), but he has already amassed a wealth of experience of international study as he has had internships through the IAESTE programme at the University of St Andrews in Scotland and the Manipal Institute of Technology in India. It didn't stop there: he also undertook placements at the

Universities of Oklahoma (USA) and Portsmouth (UK), so he has plenty of understanding of other cultures and work ethics.

Lukasz felt that the Marie Curie Fellowship provided an extraordinary opportunity. In his view, the prestige scholarship, which promotes a scientific exchange within the European Union, meant he could further his studies in Europe. Another important motivation was the comprehensive training provided, which allows the participants to take any professional career path, whether in academia or industry.

"As a Marie Curie Research Fellow I am gaining many different kinds of benefits", reports Lukasz. "First of all, I'm studying at the prestigious University of Sheffield, which is one of the best universities in the UK and has an excellent reputation for engineering subjects. Secondly, my Fellowship covers my expenses and that gives me peace of mind. I do not have to look for part time jobs or any extra sources of money to earn for my living - I can entirely focus on the research. And finally, I enjoy cooperating with the different partners within the network, which is a great chance to go outside of the research group and think broadly."

Lukasz would like to continue his work in the area of remediation; he finds it challenging but also gratifying when there is a happy ending. He is undecided whether to stay in academia or branch out into industry or consultancy. "I like to solve real problems quickly and efficiently, but on the other hand I always consider myself as a true scientist who is more like a philosopher finding answers", says Lukasz.



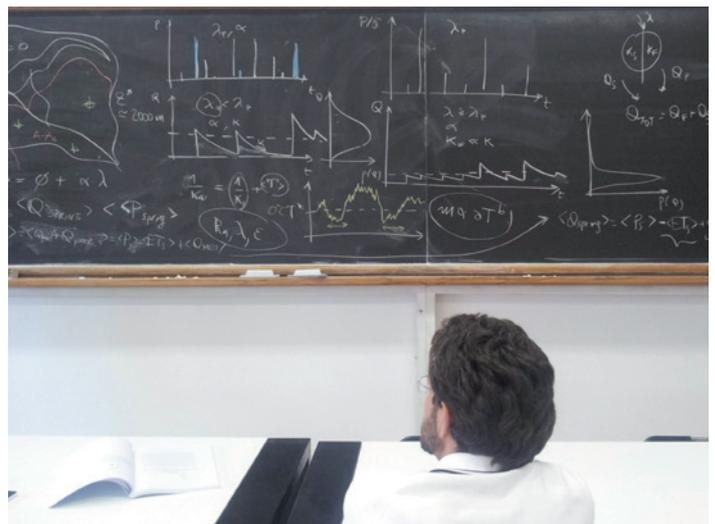
Ben Doulyatari (EAWAG, Switzerland)

Ben had worked previously with the staff at EAWAG in Switzerland, and recognised that he would have a worthwhile experience in taking up the Fellowship there.

"Independent research has been more challenging than I thought and my topic has evolved considerably since I started which has added to the challenge", says Ben. "I am really getting to know myself, realising my weaknesses as well as my strengths. I am learning how to make science happen!"

This is Ben's description of a typical day:

"Wake up, get to work, stare at the computer for 8 hours (plus or minus a couple of hours depending on the day), wonder why you are doing this, go exercise (sitting down all day is not very good for your health or figure), wonder why you are doing this, do something to distract yourself from this question (drink, more exercise, meet people, drink, plan your next travel...), go to bed, repeat indefinitely."



Ben making calculations

"In the future I would like to do something with all these years of education. I can't decide at this stage whether to go back into industry (perhaps in a regulatory role) or join an international organization such as the World Health Organisation or United Nations, or some sort of NGO."



Alistair Beames (VITO, Belgium)

Alistair is originally from South Africa and did his undergraduate studies there. He was studying at the Vrije University in Amsterdam when he saw the advertisement for the ADVOCATE project, and knew the topic fitted right in with his Master's thesis which he was writing at the time.

He tells us "The PhD is more challenging than I expected. The PhD differs from the master's research projects I worked on in that it requires working independently on new research areas, developing research questions and finding ways to address them, as opposed to being given an assignment where the research question and methods for addressing it have already been defined." However, he is enjoying the time and opportunity to explore the research areas which are particularly interesting to him, and feels that he is on the way to becoming an independent researcher with good writing skills. He would like to stay in academia, preferably in the Netherlands, as he has a wife and daughter there.



Alistair

Juan Peña (University of Liège, Belgium)



Juan getting his hands messy

Juan obtained a Masters degree in hydrosociences but was searching for a bigger challenge when he saw the advertisement for his Marie Curie Fellowship, and felt it offered the perfect opportunity for him to expand his training and knowledge.

He has particularly enjoyed the different workshops and summer schools offered by the Network.

"I'm thankful to be part of a prestigious fellowship program" says Juan. "The ADVOCATE network has allowed me to expand my knowledge of different problems in different places, due to the very international character of the network. I have also had the opportunity of receiving multiple training opportunities in areas related to my field of research".

"I usually begin my day at 7am with breakfast. Afterwards I enjoy my 40 minute commute to work since the campus is located in a nice forested area away from the city centre. After arriving at the office I usually use the first hour of the day to organize my work and complete any unfinished tasks from the day before. On a day of field work I usually leave the office once again at 9am and drive almost 2 hours to the field site. Field work is very entertaining (when it's not snowing). After completing my activities on the field (usually around 4pm) I head back to university to return the equipment and process any data that need to be processed immediately. After a long day on the field I meet with my friends in Liège for dinner and drinks, and after this have a well-deserved long night of sleep."

Juan intends to pursue a career in contaminated hydrogeology and remediation, and would like to work in an international environment to continue to gain expertise in different areas and to obtain a more global perspective.



Juan in the field

Franklin Obiri-Nyarko (Hydrogeotechnika, Poland)



Franklin in the field

Environmental Sciences at the University of Oslo, and it was then that he became particularly interested in soil and groundwater remediation.

“Choosing to apply for the Marie Curie Fellowship was not one of the difficult decisions I have made in life,” he tells us. “The Marie Curie Fellowship is one of the prestigious fellowships in the world. Right from hearing and reading about it, I was convinced it was what I needed for my doctorate. I applied for the Marie Curie position at Hydrogeotechnika because the

Franklin had thoughts of pursuing a career in academia right from childhood. He became a research and teaching assistant in the Department of Soil Science at the University of Ghana, but then went on to do a master’s degree in

project content and its objectives were just in perfect harmony with my academic and research interests. I was motivated by the opportunity to conduct research in a reputable institution and under the supervision of expert scientists, by which I was sure of gaining deeper understanding, more knowledge and new perspectives on my research topic.

“I can say my experience as a Marie Curie Fellow after a year and a half through my work has been fantastic. The ADVOCATE programme is well packaged, and gives some freedom to explore what one is interested in. There are lots of interesting academic research and social activities that keep you focused and invigorated for your research.”



Franklin monitoring his equipment



Uwe Schneidewind (VITO, Belgium)

Uwe was already searching for funding to conduct research in hydrogeology to obtain a PhD, and was happy to apply for the position with VITO because they are a well-known research institute that has been working on issues related to groundwater contamination and contaminated site management for many years.

He is now working in the Land and Water Management group, mostly on modelling problems related to contaminant transport and attenuation, and is reaping the benefit of the expertise his colleagues have gathered over the years.

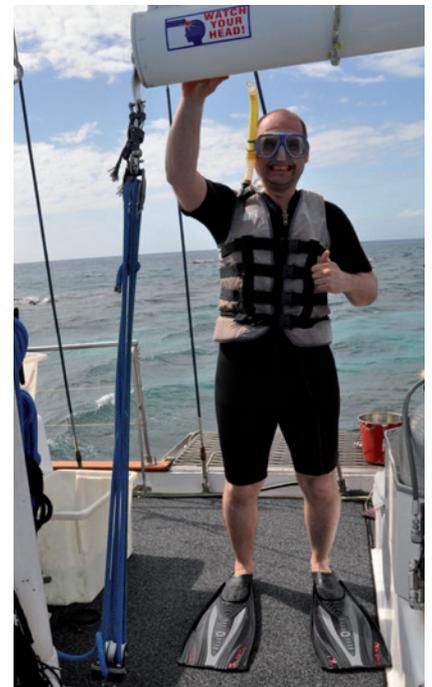


Uwe at work

“I think I fit well into the team with my background as a hydrologist”, remarks Uwe. “Although VITO is a profit-oriented company, as a PhD student I feel I have sufficient time to experiment and try out new things on the computer or in the field related to my research. If I need help I can always ask my supervisors or one of the other group members.

I can also support my supervisors in teaching undergraduate and graduate students, which is in my opinion an integral part of PhD training and provides me with invaluable experience for my later career.”

In the future Uwe hopes to obtain post-doc work on projects related to contaminant transport and attenuation, and looks forward to getting more involved within the scientific community.



Uwe at play



World Environment Day – 5 June 2013

Think. Eat. Save. Reduce your footprint.

World Environment Day 2013

You can find our full list of partners on our project website (www.theadvocateproject.eu). If you would like any further information please contact Jenny Chambers at j.a.chambers@sheffield.ac.uk.

Contact information for lead scientists at organisations hosting Research Fellows within the ADVOCATE Marie Curie Initial Training Network

| | | |
|--|-----------------|--|
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| CLAIRE, UK (Network Knowledge Transfer) | Rob Sweeney | rob.sweeney@claire.co.uk |

We are also pleased to have a number of associated partner organisations from different commercial and industrial sectors of the contaminated land and groundwater management field within the network, who are helping us with training and technical assistance. You will find details of these partners and their contribution to the network on our website.