



Initial Training Network - Developing innovative (bio)artificial devices for kidney & liver disease treatment

Interview with **Ilona KRYSTEL**

PhD student at the *University of Leipzig*
Germany



“I’m originally from a small renaissance style city in Poland, close to the Ukrainian border. However recently I feel more like a resident of the world, I am travelling a lot and getting to know different cultures and languages. During the last year I’ve been living in the Czech Republic and Germany. I’m taking every opportunity to extend my knowledge as I don’t want to miss out on new opportunities to enrich my life. Therefore when I found a PhD position with this international project in Leipzig, in a field which is particularly appealing to me, I was happy to become involved. Beforehand I was studying Biotechnology in Poland but it was always in my mind that I wanted to study abroad to broaden my horizons and to get an insight into the wider scientific community.”

Welcome in the BIOART project Ilona. What is your PhD project about? What objectives do you have to reach?

My PhD concerns induced pluripotent stem cells (iPSC) which are the most promising weapons in the regenerative medicine field. The main goal is to create highly efficient hepatic-like cells, derived from a footprint-free iPSC, that are tailor-made to each diseased individual, which could hopefully then be therapeutically applied in a clinical setting. Therefore at the moment I am focusing my efforts on the establishment of fully defined conditions for non-viral iPSC, that mimic the natural niche for human pluripotent stem cells in vitro. I am also working on the optimization of hepatic differentiation protocols in order to execute my final goal, which is the long term functional maintenance of iPSC-derived hepatocytes in a bioreactor module.

What is the best thing about undertaking a PhD? How challenging is it?

It’s fantastic, you can accomplish the plans that you have had in mind for a long time. It’s an invaluable experience which either lets you become a regular scientist or an extraordinary one; everything depends on your self-motivation! It’s also very challenging, you’re meeting obstacles that you haven’t thought about before. Everyday you’re flooded with new information that you have to carefully filter.



You have to work hard and devote a lot of time to your work but finally you will get something that no one is going to take away from you. I mean your personal development. Every success and every failure will teach you a lot. For me a diploma is not really important, the most important thing is what I will gain on the way- the journey toward your goal. As my favourite poem says:

*«Always keep Ithaca in your mind
To arrive there is your final destination.
But do not hurry the voyage at all.
It is better for it to last many years,
and when old to rest in the island,
rich with all you have gained on the way,
not expecting Ithaca to offer you wealth.»*

This poem by Constantine P. Cavafy has accompanied me for my whole life, but here it seems to fit best.

You participated in BIOART's meeting and training sessions in January 2014. What did you learn there?

It was amazing. It gave me a full insight into our project. It was an enlightening experience, especially the lecture led by Prof. Dr. Bert van de Heuvel concerning "Conditionally immortalize renal cell lines" As cell lines are a great part of my everyday work it was very helpful and valuable for me to take part in this lecture. Besides that, the lectures concerning soft skills, like preparation of research proposals, were also very useful.

It is also worth mentioning that we got a chance to practice valuable presentation skills in front of these new friends and colleagues. The other important aspect of this meeting was the possibility to get to know other BIOART project members

in order to share ideas and experiences and create a well-organized network that we can rely on. I feel really special to be a part of such exciting research.

What is appealing to you in being a researcher?

The vision of helping the world and the thought that I can make my small contribution to the improvement of the lives of future generations. I went into research because I wanted the opportunity to use my skills to create and discover new things and to improve people's lives with cutting edge research like the treatment of liver diseases. The excitement of going into currently unexplored fields is particularly motivating.

Thanks for answering my questions Ilona, and all the best for your PhD!

BIOART in brief

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