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Deconstructing Blood Cell Research
Building the Hematology Community

Lab Spotlight: The Ottersbach Lab



- May 06, 2021

Each month, Simply Blood spotlights a lab focused on the research of basic hematology, immunology, stem cell research, cell and gene therapy, and other related aspects. Get to know these different labs around the world! This month, we are featuring the Ottersbach Lab at the Centre for Regenerative Medicine at the University of Edinburgh!



1. How long have you had your lab for?

I established my lab first in Cambridge in September 2006 and then I moved the lab to Edinburgh in March 2015. Overall, I had my own lab for almost 15 years now.

2. What's the major research theme of your lab and what's one of the most exciting projects that is either ongoing or that you did in the past?

When I first started off, my lab continued work I had started during my postdoc, characterizing how blood, especially blood stem cells, develop in the embryo in mouse models. I still love that subject, but I have currently only one PhD student working on that topic.

But what I realized at some point was that, even though these very early hematopoietic stem and progenitor cells in fetal development looked like adult hematopoietic stem and progenitor cells with equivalent counterparts in the adult system, they were not quite the same.

They did have different properties that we and others have described.

By chance, I was reviewing a grant where they talked about these infant leukaemias that initiate pre-birth and how they are actually quite different from adult leukemia, due to their fetal origin. I decided that this was something that I wanted to work on and this focus has completely taken over the lab now. We combine childhood malignancy with our expertise in fetal development and really see these leukemias as a developmental disease. The fact that they initiate prenatally is important and we managed to create multiple new childhood leukemia mouse models that reflect the disease phenotype more accurately.

3. How did you manage to get your first position in Cambridge?

I managed to get a fellowship after an unsuccessful application for a lecturer position, but then I realised that the infrastructure at the host institution was not able to support my mouse work. I then approached the funder with the wish to change host institution and that is how I managed to get the position in Cambridge.

4. How important was mentorship to you during the early stages of your career and how do you mentor people nowadays?

I think mentorship is very important, which is luckily much more recognized these days. I was lucky that I always had good mentors during my career, starting from my PhD supervisor, who taught me a lot about writing grants to gain a post-doctoral fellowship to my post-doctoral supervisor who helped me to secure my first independent fellowship, allowing me to establish my own lab. This is something I have taken with me and I encourage my post-docs and students to write their own fellowships and I try to help them as much as possible to give them the best start. I also mentor a couple of young PI's who are just starting out in Edinburgh.

5. How many members do you currently have in the lab?

I currently have five postdocs, three PhD students and three undergraduate students.

6. How did you manage to build your lab starting with a fellowship which usually only comes with a couple of positions in the UK?

The first fellowship came with a research technician and while I was in Cambridge, my lab got a bit bigger.

The problem with the fellowship system in the U.K. is that when you apply for other grants, the fellowship has to extend to the end of the grant that you are applying for which makes it a little bit difficult. It was really when I moved to a tenured position in Edinburgh, that I was able to plan more long term and apply for several grants at different times.

7. How do you manage to run a successful lab and a family with small children?

You always think about when is actually the right time to have family and there is no doubt that, having children will take away a lot of your time. I started having children quite late, between fellowships, as I wanted to be established first. But then I realized that there's never a perfect time that at some point you just have to do it if you want to.

The maternity leave for my first and my second child was quite different. I had quite a small group when I had my first child and I was worrying a lot about the research stopping while I was away, whereas for the second time, I had a larger group, and I could delegate a lot more.

On the one hand you don't have as much time anymore and you can't leave things to the weekend but on the other hand, it also puts things into perspective and sometimes things that might have worried me quite a lot didn't bother me so much anymore, because I had a family to go back to.

8. Do you have any fun traditions in the lab?

We obviously have Christmas parties and during group meetings we always have snacks. We celebrate birthdays, vivas and papers with champagne or a get together. Social aspects often depend on the group dynamics. When I had my lab initially, I was very lucky in that the two people I had got on so well and it was a really good atmosphere and they came around to our place for dinner, and we did charity runs together. But sometimes it just takes a couple of people who don't get on to disrupt the group atmosphere and this influences social activities.

9. What challenges did you have to overcome managing a research group?

One thing that I really found quite amazing was how little I sometimes knew about what was going on in the lab. As soon as you become the group leader you are not really part of the group in the same way as you were when you were a postdoc so I was quite amazed that there were things going on, I didn't realize until it came to a breaking point. Solving those issues was certainly a challenge and having difficult conversations with people is something you need to learn.

10. What advice would you give young PIs based on your experience?

I think that is really quite important to show to people in your lab that first of all your door is always open and to stress that if there are any problems you will take those seriously. It is also important to be unbiased and convey that you will support everyone equally.

If you have to have difficult conversations, which is something I found quite hard, prepare very well for these meetings and think about what you are going to say beforehand.

11. What are the most beneficial aspects of ISEH membership for you and your lab?

I always liked ISEH because the society is a good size. It is big enough to hear some amazing science ranging from developmental biology to stem cell biology and leukemia. At the same time it's informal, small enough and friendly, so the atmosphere is amazing. There are a lot of opportunities for all career stages to get involved throughout the year and the various social events mean great opportunities for networking. I would always make sure that my lab members attend the annual ISEH meeting during their stay in my lab at least once.

Katrin Ottersbach, Ph.D.

Lab Name: Developmental origins of blood stem cells and leukaemia

Location: Centre for Regenerative Medicine, University of Edinburgh, U.K.



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ISEH 2025 Society Award Winners

- [March 11, 2025](#)

On behalf of the Awards Committee, ISEH would like to congratulate the recipients of the 2025 ISEH Society Awards which will be presented at the ISEH 54th Annual Scientific Meeting . Donald Metcalf Award Winner - Constanze Bonifer The recipient of the 2025 Donald Metcalf Award is Dr. Constanze ...

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- [March 25, 2021](#)

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Lab Spotlight: Vanuytsel Lab

- [November 14, 2024](#)

Each month, Simply Blood spotlights a lab contributing to the fields of hematology, immunology, stem cell research, cell and gene therapies, and more. Get to know groups doing cutting edge research from around the world! This month, we are featuring the Vanuytsel Lab which is based out of the Center for ...

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