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Deconstructing Blood Cell Research
Building the Hematology Community



Lab Spotlight: The Velten Lab



- June 17, 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 Velten Lab at the Centre for Genomic Regulation located in Barcelona, Spain!



How long have you had your lab?

I only started in January 2020. There was a pandemic for almost 90% of the time that my lab has existed... Fortunately, the Spanish anti-Corona measures were only really tough for three months. So, despite everything, we were able to grow together as a team and get experimental work done.

What was your biggest transition from a post-doc to a group leader/lab PI?

To me, it felt like a big relief. As a senior postdoc, I was leading or co-leading three projects and was involved in even more. The number of projects I'm involved in is definitely not getting smaller, but now I can strategically grow a team of independent and dedicated researchers around me, and more confidently plan things through long-term.

What was the most exciting part about starting your new lab?

The most exciting part was to plan the projects, and then seeing how they grow and develop.

What is the major research theme of your lab and what is the most exciting project in your lab right now?

We are at a transition: On one side, we're increasingly pushing our single-cell genomics technologies to a translational space. The most exciting project there is the quest for leukemia stem cell specific drug targets. On the other side, we're investing heavily in the interface between single-cell genetic screens and machine learning. I'm very excited to see how far we can take this.

How many members make up your lab? Students/postdocs?

Currently, we're 5: Two Ph.D. students, one postdoc, one technician, and myself.

How important was mentorship to you during the early stages of your career and how do you mentor trainees?

There are different approaches to mentorship, I would compare them with Gandalf and Aragorn from Lord of the Rings. Aragorn guides the Hobbits to Rivendell and defends them from the Nazgûl (that is, he makes sure the experiments run and helps to plan the project), Gandalf shares his big picture vision but is mostly absent and leaves space to become independent. I think a good lab has both types of mentors, and during my Ph.D., that was the case. After graduating I was promoted to be the new Aragorn of my Ph.D. lab, so that's a style of mentorship I know very well. A challenge as a junior PI is that in the beginning you need to be both at the same time.

What is your lab's most recent accomplishment? How do members of your lab celebrate accomplishments? And does your lab have any fun traditions yet?

We already have quite a collection of empty Cava (Spanish sparkling wine) bottles in the office, each of which is labeled with the occasion for which it was opened. That's a nice tradition. The recent accomplishment that felt biggest to me was actually the 1st thesis committee meeting of my first Ph.D. student. Both he and I were super happy that the committee shared our excitement for the project.

What do you like most about your current institution?

The beachfront location in Barcelona, and that they encourage creative basic research.

What major advances do you predict in your research field in the next 10 years?

I think more of biology will become predictable by artificial intelligence trained on the vast amount of data that genomics is currently generating. Maybe this will turn biology from a trial-and-error discipline to something more like physics or engineering in the next 10 years.

Lars Velten, Ph.D.

Centre for Genomic Regulation, Barcelona, Spain

Lab website: <https://www.crg.eu/en/programmes-groups/velten-lab>



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- *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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