Lab Spotlight: Passegué Lab

simplyblood.org/2018/10/lab-spotlight-passegue-lab.html

ISEH Headquarters October 17, 2018

How long have you had your lab?
I got officially hired by the University of California, San Francisco (UCSF) in December 2005, but I didn't hire my first lab member until March 2006. My lab relocated to Columbia University in New York City last year.

How many members make up your lab? Students/postdocs?
Since the relocation, my lab consists of 4 postdocs, 1 MD/PhD fellow, 1 graduate student, 1 lab manager and a junior tech, as well as a number rotating students and interns.

What is the major research theme of your lab?
The big question is regulation of blood production. All the current projects further fit under two axes – 1) emergency myelopoiesis and regenerative processes, and 2) blood aging.

What is the most exciting project in your lab right now?
I think all the projects are exciting, since I don't pursue projects that are boring. All of my trainee's projects have interesting aspects, and depending on the stage of the projects, there is a changing landscape with different type of excitement. Within the aging line of research, one of the big questions is understanding of the interplay between intrinsic and extrinsic aspects of it. We are trying to establish how much of the HSC and blood aging phenotypes come from the aging of the bone marrow niche microenvironment, what is driven by changes in metabolism, and how much we can control and manipulate these processes. Regarding the emergency regeneration axis, we are digging into the roles of individual cytokines as I consider the cytokines as words that the organism is using in inflammatory conditions, and we are trying to understand the vocabulary of signals that are regulating regeneration.

What's the biggest accomplishment your lab has had recently?
Two Nature publications coming out within the same month, which was a great ending of two large stories. Also, relocating my lab from the West coast to the East coast, which was a way bigger undertaking than anticipated.

What is the key to running a successful lab?
The boring answer for this question is money. You always need money to do *state-of-the-art* innovative research. But before the money – it is the people. Your science will be as innovative and exciting as the smart, innovator and motivated people you have hired to do it. So, the main key to success is hiring the right people. And then you need money in order to deliver the results, because they all will want to do experiments that cost a fortune.

What advice do you have for new investigators just opening their lab?
I will give a few as you need to think both big and small, to focus on what you need when you start your lab, and to manage this critical transition from being a pair of hands at the bench to become the manager of a team.

1. *Develop both short-term goals and long term plans.* Think strategically about the necessary deliverables that are needed for your new institution – first grant and first publication - and how you can achieve that with your first postdoc, student, or technician. At the same time think big with exciting long term plan that will progressively develop over the next 5-7 years.
2. *Think as a small business owner.* As a PI, you do run a small business, which requires constantly building new skill sets and managing a team for the common good. You have to find the personalities that work the best for you – everyone is different and works different, so understanding what will make your best team takes time, and usually happens by trial and mistake.
3. *In the beginning of your career, you have to have a nurturing environment to support you* – 10 years later you might need something different – more initiative, more say on the direction of science and investment of resources, etc. Your decisions do not have to be permanent – they are just steps in your career. To start you want a supportive place that is both pushing you to excel but also forgiving if you do not get your first big grant the first or even the second time around, and not a *Nature*, *Cell* or *Science* paper as your first independent paper. It is also very important to have supportive leaders that will propose you for different types of awards, will put your name out for meeting or seminar invitation, and will be your biggest proponent and defender.

What was the most exciting part about starting your new lab?
You are now in control – it is very important. It is your ideas that you can explore, you can really plan and be creative, it is the most fantastic feeling. It is your own baby, you are the most invested person.

Does your lab attend the ISEH annual meeting?
Yes, and some of my current and former trainees are serving on ISEH committees.

What is the most beneficial aspect of ISEH membership for your lab?
Community building: knowing your colleagues, meeting other people working in our field, establishing contacts, and networking.

How do members of your lab celebrate accomplishments?
Champagne in the lab ice buckets is an absolute must.

Does your lab have any fun traditions?
We organize a roast every time someone graduates or leaves the lab. Also, we have an annual lab retreat – while at UCSF, it was winter activity in Tahoe, and now at Columbia – it is summer time on the Atlantic Ocean beach (shark sightings included).

Emmanuelle Passegué
ISEH President-elect

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 Passegué Lab at Columbia University in New York City, USA.

Columbia Stem Cell Initiative
Columbia University
https://www.stemcell.columbia.edu/research-labs/passegue-lab