Women and Diversity Interview

Stephanie Eisenbarth M.D., Ph.D.

Assistant Professor of Laboratory Medicine and of Medicine

Assistant Director Clinical Immunology and Flow Cytometry Laboratories

Director, Immune Monitoring Core

Yale School of Medicine

Have you always been interested in scientific research?

Since I was a little girl I was interested in doing medicine or science in a general way — The first word I learned to spell was "cell". Although I didn't know much about what a scientist was I knew I wanted to cure diseases. I entered the scientific world from the medical side through the MD-PhD program at Yale. Initially I didn't have a set pathway and I let my interests



guide me. I did my Ph.D. under the guidance of Dr. Kim Bottomly and it was during my Ph.D. defense when she suggested that I should do science that I realized I really wanted to run my own lab. I returned to the MD program and finished my clinical rotations, still unsure about my clinical direction until I did my pathology rotation and realized I had found my home. Examining the mechanisms underlying diseases really struck a chord and I knew I had found my niche.

Can you give us a brief description of your current research and what most excites you about it now?

Recently we have generated a mouse deficient in the NOD-like receptor NLRP10 that has a profound defect in the migration of a specific DC subset. The most striking outcome of this phenotype is a failure to prime CD4⁺ helper T cells. This has important clinical implications and may allow us to target different branches of the innate immune response and modulate inappropriate adaptive immunity. Therefore my lab is now completely focused on dissecting the molecular and cellular basis of this striking phenotype and harnessing these pathways to treat allergic disease.

During your graduate and post-doc years did you have mentor(s) that helped guide you along the way?

First and foremost my Dad was my mentor and role model throughout my life. He has given me guidance through my career and took time to help me hone my skills in presenting and writing scientific ideas. He also showed me how amazing being a physician-scientist could be. My Ph.D. advisor Kim Bottomly believed strongly in mentoring and supporting women in science. From insightful comments during research in progress meetings to sharpening my presentation abilities, she helped me develop a strong scientific foundation. However, she also helped me realize that there is more to life than being in lab and that it was perfectly appropriate and important to maintain the work – family life balance that suited me. She helped me realize that you need to go for what you want and figure out how to make it work for you. My Post-doc mentor was Richard Flavell who was and is 100% supportive and has helped me become independent and get my lab started up. I don't think anyone makes it through an academic career without strong mentors – they are crucial.

What was (were) the biggest challenge(s) you faced in pursuing your career?

My biggest challenge was finding a balance between science and medicine. It took me 8 years to find the clinical subspecialty that fit me. Once I realized that pathology was the clinical path I wanted to take, everything fell into

place. Fortunately, the chair of my department has been amazing – helping me balance clinical work with protected time to get my lab up and running and anticipating things that I'm going to need before I even realize I need them.

Do you feel that being a woman in science came with advantages or disadvantages? What were they?

I went to an all-women's college, Bryn Mawr College, and to this day I feel belonging to the community of women in science has been an advantage to me. The feeling of sticking together and helping each other succeed has been there consistently and I feel that has helped me tremendously during my career.

What strategies do you use to maintain balance in your life?

I don't follow any specific rules but the one principle I adhere to is focus. When I'm with my family I am 100% there and with them, when I am at work I am focused on work - don't fall into the guilt trap.

What advice would you give to female graduate students that are interested in a career as an academic scientist? If science is the career you want, go for it and don't let others dissuade you. There are an infinite number of routes to take and you need to find the one that works for you. There is no one right way. But it is a lot of fun, especially if you do it your way.