

## Luisa Martinez-Pomares

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### **Have you always been interested in scientific research?**

*Being a curious person I always had a broad interest in science and in finding out the reasons behind biological and physical processes. I geared towards biochemistry and genetics thanks to an enthusiastic teacher in secondary school that was involved in research at a close by university. While completing my degree in Biology it became very obvious to me that I felt most comfortable when dealing with topics at the cellular and molecular levels and I ended up choosing all the molecular-based subjects. I was lucky enough on my last year to qualify for access to a one year module in molecular biology that involved experimental work and data interpretation. I was hooked from then on.*

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

*My research is undergoing a major shift. Most of my previous work involved the study of the mannose receptor and macrophage and dendritic cell heterogeneity in mouse secondary organs. I am extremely proud of our contribution to these areas, but recently I have become more aware of the need for a better understanding of human immunology and I am committed to using my expertise in basic immunology to improve understanding of the molecular basis of human disease using patient samples and human culture systems. I am really excited about our current studies on the immunology of Cystic Fibrosis and Fibrosis. I find that the analysis of samples from human donors (both patients and healthy volunteers) is an excellent way to challenge assumptions, find new approaches to stratify patients and improve in vitro models of disease. We are establishing in vitro models to investigate the interaction of pathogens with human innate immune cells, particularly in the context of the lung. For this I am collaborating with groups working with *Pseudomonas aeruginosa* and *Neisseria meningitidis*. I like the fact that their insight into the biology and pathogenesis of these organisms complement our expertise in immunology. There is clear cross-fertilization from which research benefits.*

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

*Definitively! My drive and enthusiasm always needed a supportive environment to flourish. I am grateful to Prof Richard Moyer (University of Florida) who helped me to realize this very early on when I first visited his laboratory during my PhD. My long association with Prof Siamon Gordon (Oxford University) was/is greatly beneficial. His unquestioning support and encouragement enable me to explore new research areas and challenge previous knowledge. Being self-conscious doesn't do you any favors when having to establish new collaborations and convince research panels of your ideas.*

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

*I guess to overcome my lack of self-confidence and having to work in a foreign country and use a foreign language. They all affect your performance.*

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

*I never felt at a disadvantage or that my ability was being questioned because I am woman. Stereotypes still abound though and I did feel guilty for leaving my daughters in childcare at a very young age and when having to leave the lab early to collect them from childcare. It felt like a 'no win' situation at the time. My impression is that the way for success in science is tailored to researchers following the alpha-male/female path and for some of us this didn't quite fit. I have changed my research interests three times throughout my career. I started to work in Immunology after a PhD and a first post-doc in virology and I missed all the opportunities for early career awards. Now my research is becoming more disease-oriented and I am getting used to being part of a bigger team that includes clinicians and basic scientists. As part of this team I am confident that that my best research is still to come. At a personal level, I can now dedicate more time and energy to it as my children get older; it is great being able to explain to your family why you need to stay late at work. They can see the value of my research and that makes it much easier. Also getting older makes you more confident! I heard somewhere that women flourish later in their careers; I think this a clear possibility.*

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

*I always felt the need for parallel interests. I don't have hobbies as such as I am quite happy to go to bed reading papers. I enjoy scientific discussions with colleagues, designing experiments with students and learning about other research areas. I always try to have good books around (in Spanish if possible) and I have joined exercise and dancing classes on and off depending on time availability. Recently we re-joined an International Folk dancing group. Folk dancing always does the trick when I had a bad day. I also try to keep weekends free as much as possible. They are dedicated to the family. Finally, I am aware of my privileged situation and try to contribute to society in other ways in addition to doing research. For this reason we promote Fair Trade and support Amnesty International at home.*

**What advice would you give to female graduate students that are interested in a career as an academic scientist?**

*There are many possible ways to achieve your goals, in my case, to do independent research in immunology within an academic institution. I can't imagine a more fulfilling job. Also the flexibility in academia enabled my husband and I to pursue our careers without having to keep our children long hours in childcare and to work around illnesses and school holidays.*

*My advice would be to put yourself forwards, do not wait to be asked. Get out of your comfort zone and network. Do not pay attention if anybody says to you that 'you might have missed the boat'.*

*At a more personal level, and if you know you want children do not wait for the 'perfect time' to start a family; there is no such thing. Make sure you discuss with your partner how childcare and chores are going to be arranged and do not wait too long. In my experience having children at 39 is not as easy as at 33.*