

Pearl Quijada Enthusiastic Drive From Coast to Coast

Pam Goldberg-Smith

As one who was not raised in a scientific background, Pearl Quijada is living proof that the science community benefits when taking a chance on those who exhibit great passion for the field. Pearl is a postdoctoral research fellow in the lab of Eric Small at the University of Rochester Medical Center—Cardiovascular Research Institute. She earned her BS in Biology at the University of California, Riverside. Pearl then achieved her MS in Cell and Molecular Biology at San Diego State University, before attending the Joint Doctoral Program at both San Diego State University and the University of California, San Diego for her PhD. Most recently, she has won the 2016 BCVS Abstract Travel Award.¹

Why Did You Start Your Current Project, and What Interests You About It?

I moved across the country to attend the University of Rochester, and I joined the lab of Dr Eric Small. He had a strong background in the role of epicardium during development, and he was also interested in studying its role in cardiac injury, similar to what I had studied back in California. We are investigating how epicardium—the layer around the heart that nurtures progenitor cells—plays a role during cardiac repair.² Novel molecular markers may help us to develop new models and study heart regeneration more effectively. I like that I am taking a step back to understand more about the basic biology of progenitor cells in the heart. Some people think these cells are insignificant, that they are already well known in certain tissues, but I am applying new technology to validate that they can be beneficial in cardiac repair.

What Led You to Study Cardiovascular Science?

My teaching assistants at University of California, Riverside were always so excited in their discussions about helping people, doing field work, and collecting specimens. They seemed stoked, and I thought “I want to do that.” Right after college, I thought about getting a master’s degree and potentially go to medical school, both to boost my experience and give me time to consider what I want to do in the long run.

When I met with Dr Mark Sussman, who had later become my mentor at San Diego State University, he knew I had very little research background. He explained what goes on in the lab, and it all sounded really cutting edge. Mark took a chance on me, and my passion developed while I worked there for about 2 to 3 years.

What Has Been the Most Exciting Moment in Your Career Thus Far?

I thought about how I felt when I got my first predoc grant or my first publication, all pretty exciting events. However, the most exciting moment was when I gave my first speech at a major conference, which also happened to be my first professional trip as well during my third year in graduate school in 2013. I had submitted an abstract to the AHA Sessions in Dallas based on my CardioChimera^{3,4} work where I fused two progenitor cells together to create a hybrid with properties of both. I was incredibly nervous, and of course I was scheduled to present after a major keynote speaker, Dr Eric Olson. The type of rush you get from an oral presentation in a room that was so filled with people just overwhelmed me. I wanted to reflect how passionate I was about the work I presented. I received many questions but also a lot of good feedback. Mark said he did not know I had that in me. I wanted to do it again.



Pearl Quijada

What Have Been Your Main Challenges, and How Have You Overcome Them?

The Sussman lab is a highly productive environment. Mark had high expectations of us collectively, as well as individuals. One of the hardest things I have had to do is to set realistic goals and manage my time. I find myself, even now, not always focusing on the highest priority. I have to stop and ask myself why I am doing this particular thing and how it contributes to the message I want to send out. Sometimes I sit back, take some time to figure out what I will do in the week ahead; it is important to set day-to-day goals and determine what I want to accomplish in the long term. Some things you overcome, but dealing with failing is just as important as dealing with acceptance.

How Hard Do You Work?

It is innate in me to work hard. I did not move across the country so that I could just settle down and coast. I had the intention to change my environment and learn something new. Though I am in a different lab, I try to keep with traditions learned in the Sussman lab: priority experiments come first, however long they may take, and lower priority experiments can be pushed to the weekend. It is very common to see other postdocs working on the weekend too. It shows we are all in it together.

How Do You Spend Your Time Outside of the Lab?

The only person I have to take care of is my cat; she wishes I had a regular job so I could be home more. The lab is a pretty sociable bunch; we take breaks and will grab a drink after meetings. Being from California, I never saw snow. It is such a novelty that the first thing I want to do when I see it is run outside. Rochester can get really cold, and 50 degrees seems freezing to me though I enjoy long trail runs in the cold and snow to unwind. As a practicing vegan, I enjoy cooking and making interesting things for myself. I also try to be self-sustainable. I make my own bread, yogurt, and kombucha—which requires lab skills in and of itself, as I am inoculating things in my own home. I keep in touch with my mom and two younger sisters, one a lawyer in Brooklyn and the other pursuing veterinarian school.

How Has Your Background Shaped You?

My mom was a single mother, and she changed her whole life to have me at 19 years old. She would take whatever job she could and worked hard to move up through the ranks. Growing up in a matriarchy really shaped who I am. I was in day care a lot, and we lived in less than ideal places, like East Los Angeles (though it is much nicer now). It taught me not to take things for granted and also helped develop my appreciation for diversity. No one in my family had a science background; math interested me in school and it just stuck in college when I learned about cell biology and human anatomy. I saw creativity in it and was drawn toward the unknown territory.

What Worries You Most About Your Future? What Is the Main Challenge That You Foresee in Pursuing an Academic Career?

Though I have experience with manuscripts and publication, the number one obstacle is being productive in a new environment to get published. That obstacle must be completed to tackle the second challenge: obtaining an independent grant so that I can be competitive in getting the job I want, which is to be a principal investigator. I am also unsure if the current political climate will affect stability for funding and research. Will it send me in the middle of the country or internationally? This can affect where I will find an academic university that will help me develop my research program later on.

What Would You Do to Improve Training in Research?

As I said, I did not have the typical background for pursuing this field; some people have academics in the family and

that is what guides them. I would like to see more programs include people from nontraditional backgrounds. It is pretty easy to get kids interested in science as it is both creative and hands-on. When I volunteered with elementary school children, their eyes would light up and they would work together. My boyfriend is a marine biologist and postdoctoral at Rutgers University where they do a lot of outreach. Of course, the advantage there is that children are inherently excited about sea life and going to the aquarium. If they knew what we were doing, they would be excited; it is just not as obvious. There are ways to improve bringing in people of different backgrounds. It is an initiative I see coming up in certain programs for diversity, with more outreach to engage the community.

What Do You Like and Dislike About Research?

Science is quite diverse. I like that research brings together people from lots of different backgrounds. People all over the world work in research and so you get different perspectives and levels of experience. It might not be so common anymore, but I do not like the competitiveness of research. Different labs may work on a similar topic and we are all going for that grant but I think it is better to let go of that competitive nature and work together. I try to make it my philosophy to be open about what I am doing in the lab.

What Qualities do You Consider Important for Success in Research?

I would say not to be discouraged if your publication is rejected or you do not get a grant. Take every opportunity to resubmit. I am very much a “yes” person. Unless I am really busy, I hate saying no when someone asks for help or favor. If you say “no” too much, people will stop asking. Everyone is busy, but it is important to take the opportunity to help others; you never know who you will meet. Also, nothing ever beats hard work, showing that you are proactive and thinking about the bigger picture. I know it is scary, but one should not be afraid to learn new techniques. Once you immerse yourself in learning something new, it becomes easier to understand. Important science is not static at all, and there will be a new generation of technology, but you have to keep up with it.

Disclosures

None.

References

- Quijada P, Trembley MA, Velasquez LS, Dirx R, Small EM. 2016 AHA Late-breaking Basic Science Abstracts. *Circ Res*. 2016;119:e160–171.
- Trembley MA, Velasquez LS, de Mesy Bentley KL, Small EM. Myocardium-related transcription factors control the motility of epicardium-derived cells and the maturation of coronary vessels. *Development*. 2015;142:21–30. doi: 10.1242/dev.116418.
- Quijada P, Sussman MA. Making it stick: chasing the optimal stem cells for cardiac regeneration. *Expert Rev Cardiovasc Ther*. 2014;12:1275–1288. doi: 10.1586/14779072.2014.972941.
- Quijada P, Salunga HT, Hariharan N, Cubillo JD, El-Sayed FG, Moshref M, Bala KM, Emathingier JM, De La Torre A, Ormachea L, Alvarez R Jr, Gude NA, Sussman MA. Cardiac stem cell hybrids enhance myocardial repair. *Circ Res*. 2015;117:695–706. doi: 10.1161/CIRCRESAHA.115.306838.

Circulation Research

JOURNAL OF THE AMERICAN HEART ASSOCIATION



Pearl Quijada: Enthusiastic Drive From Coast to Coast Pam Goldberg-Smith

Circ Res. 2017;121:599-600

doi: 10.1161/CIRCRESAHA.117.311745

Circulation Research is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231

Copyright © 2017 American Heart Association, Inc. All rights reserved.

Print ISSN: 0009-7330. Online ISSN: 1524-4571

The online version of this article, along with updated information and services, is located on the
World Wide Web at:

<http://circres.ahajournals.org/content/121/6/599>

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in *Circulation Research* can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the [Permissions and Rights Question and Answer](#) document.

Reprints: Information about reprints can be found online at:
<http://www.lww.com/reprints>

Subscriptions: Information about subscribing to *Circulation Research* is online at:
<http://circres.ahajournals.org/subscriptions/>