

IgEquity International Women's Day

March 8th is International Women's Day, an important day to celebrate women's achievements and to advocate for equity and equality in all spheres of our lives. This year the theme for International Woman's Day is "***Women in leadership: Achieving an equal future in a COVID-19 world.***"

This pandemic has highlighted both the centrality of women's contributions and the obstacles that women encounter. Here we present portrait of 3 women in Immunology that were at the front of the BAKAR ImmunoX COVID-19 research response. These researchers were mobilized at the beginning of the pandemic, becoming involved with two collaborative BAKAR ImmunoX scientific projects that sought to understand and find cures for COVID-19 disease.



Lauren Rodriguez, PhD

Lauren, can you tell us about yourself and your role within Bakar ImmunoX?

I am a Biosafety Level 3 (BSL-3) specialist and I manage the CoLabs-supported BSL-3 facility at Parnassus. This lab is where we can handle aerosol pathogens, such as SARS-CoV-2. I collaborate with labs on their COVID-19-related projects and execute the experiments requiring the live virus.

Lauren, as a BSL-3 specialist in ImmunoX I guess you have worked very hard in 2020. What are some reflections you have about this past year? How has the pandemic affected you both professionally and personally?

The last year has gone by very fast for me. There has been so much work to do which was been both exciting and tiring. I spent the entirety of my graduate career working in a BSL-3 facility so it has been really rewarding to be able to put those skills to good use. I think the biggest impact this work has had on my personal life is that it needs to be a conscious decision for me to disconnect when I get home. Pre-pandemic I had a very full social life so now it's easy for me to work all the time because I can't have that social life right now. I realize that I cannot maintain this intense working lifestyle forever so I'm getting better at letting my brain take a break when I get home.

Have you experienced barriers or challenges as a woman in science? How have you overcome those challenges?

I have felt barriers for being a Mexican American woman scientist. Many times, I would second guess myself and think maybe I was just checking off a diversity box. Unfortunately, that little voice doubting myself is still in the back of my head sometimes but now I override that doubt by acknowledging my hard work that has put me in my current position.

What is one message you would like to share with women scientists?

One thing that I have been trying to get better at is avoiding saying things are ok when they are not. I notice that I do it to avoid an uncomfortable situation but it doesn't solve anything. For example, when people assume I am not a PhD-level scientist because my arms are covered in tattoos, that is an outdated assumption and I should let them know instead of just saying "oh it's ok". My message to other women in science is that it is ok to acknowledge when someone has said something hurtful.



Michelle Gbenedio, MSc

Michelle, can you tell us about yourself and your role within Bakar ImmunoX?

I am the middle child of an African American mother and a Nigerian father and I grew up in Riverside, CA. I received my Bachelor's degree from UC Berkeley in Integrative Biology and my Master's degree from SFSU in MCB. My earliest science interests centered on human anatomy and physiology. As a young child when asked what I wanted to do when I grow up. My response was 'I want to cure cancer.' Looking closely at the body's structures and being able to perform dissections in high school biology helped me hone my early interest for science. That interest was transformed while doing an internship after my undergraduate studies in Dr. Mina Bissell's lab at LBNL, where I took part in a project involving how the tissue microenvironment impacts mammary gland development.

Today I am the lead of the Organoid D2B core where I develop 3D cell culture to broadly study cellular interactions and cell signaling pathways that govern cancer progression and drug responses. Another goal of the Organoid D2B Core is to build a living organoid biobank to serve as a platform for collaborative research at UCSF. A lot of the early work that I have done has centered on maintaining the stem cell niche in these organoid cultures by modulating growth factors and ECM stiffness allowing for unlimited passaging of the 3D cultures in our biobank.

2020 has been a difficult year for many of us, what are some reflections you have about this past year? How has the pandemic affected you both professionally and personally?

The last year has definitely been difficult because there were so many uncertainties. However, I consider myself to be fortunate as we were considered essential workers and I didn't suffer any financial burdens. I was able to come in to work and continue to process samples that added to our biobank and research in a large way, including a COVID project in the Roose lab.

Personally, it has been hard not being able to travel to see my parents, but knowing that they are safe and self-isolating was calming. My oldest sister is an Emergency Medicine resident physician at a hospital in Manhattan. New York was the epicenter for the coronavirus early in the pandemic and her daily frontline contact was unsettling. We made sure to stay in constant communication.

How have you coped with difficult or challenging moments in your career?

I have been fortunate to have very strong science mentors (Dr. Jamie Bascom, Dr. Alissa Myrick and Dr. Kessiena Gbenedio) that have left a large impression on me and continue to guide me in my professional development. Their support and tangible suggestions have helped propel me through obstacles to ultimately reach my scientific goals.

What is one message you would like to share with women scientists?

Do not allow anyone to dictate your success. Once you have found your passion move towards it, because the satisfaction is endless. There are so many areas of science that need to be explored and you can add to that.



Gabriela Fragiadakis, PhD

Gabriela, can you tell us about yourself and your role within Bakar ImmunoX?

I am junior faculty in the Department of Medicine and the Bakar ImmunoX program, and director of the Data Science CoLab. Our lab studies immunity at the systems-level using single-cell approaches. We are also developing the UCSF Data Library with ImmunoX to house, curate, and explore high-dimensional data generated at UCSF.

Have you experienced barriers or challenges as a woman in science? How have you overcome those challenges?

The lab where I trained as a PhD student was majority male, and was a large lab where it was easy to get lost in the shuffle if you weren't confidently pushing forward your ideas. This can be a difficult environment for a trainee, and it was hard for me at first as I was trying to develop my computational skills. I fortunately had a computational mentor in the lab, a female postdoc who not only helped train me and cultivate my confidence, but also served as an example to me of a brilliant, successful woman in science at a later career stage. This representation issue is exacerbated at the faculty level, and seeking out mentors has been really helpful in navigating this.

What is one message you would like to share with women scientists?

It can feel intimidating to pursue a career in science for anyone, and can be especially challenging for women. My advice: give it a try. You know it won't happen if you don't try it, and you may surprise yourself at how capable you are at tackling new areas of research and striving for the next career stage. In addition, seek out the help, support, and guidance of your peers and mentors. We are a community at UCSF and in science, and I've found most people are willing to help you just need to ask.