

Conversations with Chemists

8 March 2021

1:00 - 2:00 p.m. Eastern Time

Natalie LaFranzo, Ph.D.
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Biography: Natalie LaFranzo received her BS in Chemistry from Bradley University in 2007, and her Ph.D. in Chemistry at Washington University in St. Louis in 2013. She is currently the Vice President of Market Development at Cofactor Genomics, an RNA diagnostics company working to bridge the precision medicine gap. She relocated from St. Louis to Boston in Fall 2019 to open Cofactor's newest office in Kendall Square. Her current service to ACS includes Career Consultant, membership on B&F, Chair of the Diversity, Inclusion and Respect Advisory Board, Member at Large of the Division of Professional Relations, Alternate Councilor for the Northeastern Local Section and for the Division of Business Development and Management. As a younger chemist with a non-academic career path, Natalie is passionate about helping the ACS evolve to reflect the changing face of chemistry, and creating a more inclusive environment where all feel welcome.



Please describe your current job in simple terms.

Cofactor Genomics builds tests that doctors can use to better understand the best medicines – or therapies – to give cancer patients. There is a new class of medicines known as immunotherapies that stimulate our immune system to fight cancer. But, only about 1 in 5 patients actually get better on these therapies. We analyze RNA (ribonucleic acid) that we gather from a piece of the patient's tumor tissue, and our predictive tests provide answers that help guide the doctors as they make these treatment decisions. Because this is a new technology, we have to run clinical studies that show that it works, before we can offer it to doctors to use in the clinic. So, my job is to work with doctors who are experts in different cancer types to gather the data to show that the test works. Then, I put together presentations and other documents explaining the data and how it will help cancer patients.

What is the impact of your job/why does your work make a difference in the world?

Everyone knows someone in their friends and family who has been sick with cancer. I love that we are using science to give doctors better tools to help treat their patients; this is known as precision medicine. Just as there is a lot of science that goes into making medicines, there is also science in building other tools, like diagnostic tests, that can also make a big impact in the lives of patients. We need both the medicines and the tests to give patients the best chance to get better.

Why did you choose a career in STEM? Was there something specific that inspired you (especially if this occurred during childhood)?

I originally got interested in STEM because I thought that I wanted to pursue forensic science and use chemistry to solve mysteries. When I was selecting a college and major, I got some great advice to consider a chemistry major because it would allow me to have more flexibility in my career path. I am so grateful for this advice because it's allowed me to change directions and pursue many different scientific questions, while being supported by my training in chemistry - the central science.

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What excites you most about the future of STEM/why should someone pursue a career in STEM?

There are so many challenges in our world that science will play a role in solving. While I'm focused on contributing to precision medicine today, it's possible that in the future my career may take me in a different direction. As long as you learn the basics, you can apply what you know in many different ways. To solve these challenges, we need people who are creative and driven to make a difference. Even if you struggle in math or science, don't give up. You don't have to be a perfect student to be a scientist. You just have to want to make the world a better place through scientific discovery and determination!