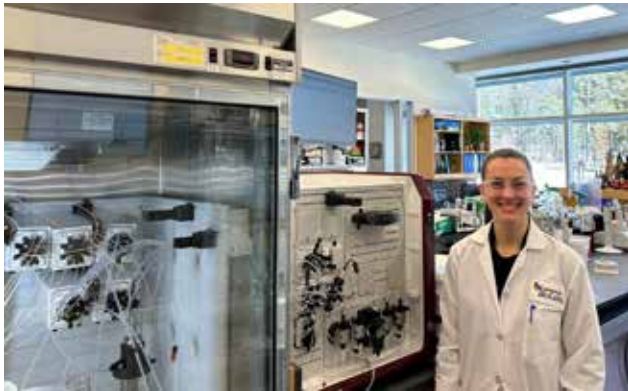




Biotech career profile

Daria McCallum, New England Biolabs



New England Biolabs is a world leader in the discovery and production of enzymes for molecular biology applications. Daria has played several roles at New England Biolabs, including more than six years working on protein production with a focus on purifying restriction endonucleases.

What education or training did you complete to pursue your career?

I earned a Bachelor of Science degree in Biology from Pennsylvania State University and completed several internships at New England Biolabs as a high school student and while I was in college. I can't overstate how pivotal internships have been in my professional and career development. My top piece of advice for students interested in a biotech career is to get an internship in a lab. No class I took (labs included) remotely compared to the learning experience of my internships.

What does your job involve?

My team determines the ideal conditions for the purification of individual proteins, studies enzyme biochemistry, helps meet specific customer requirements, and troubleshoots product issues.

What do you love about your job?

I love that every day is different. No two proteins I work on follow the same path. This motivates me to be engaged and excited about work, and I am constantly learning, changing my ways of thinking, and challenging myself.

Is there other advice you have for biotech students?

Don't be afraid to make mistakes. We're all human! I've made every mistake in the book. To name just a few, I've messed up basic dilution calculations, knocked over bottles of purified enzyme, and set up reactions with missing components. Mistakes are valuable learning experiences! Ask your supervisor, mentor, or colleagues questions to learn from your mistakes. Can you help me determine where my error occurred? Can I shadow you next time you go through this procedure? Do you have any tips or tricks that help you with this protocol?



Biotech career profile

Sarita Khanal Paudyal, AbCellera



AbCellera develops antibody-based medicines. Sarita currently works on a team that expresses and purifies transmembrane proteins for use in the development of therapeutics.

Has your career path taken any unexpected turns?

I have a degree in business from my home country, Nepal, but I moved to South Korea with my family and lived there for several years. I learned Korean and worked as a language teacher and translator. Eventually, my family moved to a small island off the coast of South Korea. I got a job as a research technician at the Citrus Research Institute. This was my introduction to working in a lab environment.

What education or training did you complete to pursue your biotech career?

When my family moved to the United States, I wanted to get into the biotech industry because of all the job opportunities. I earned a certificate in Biotechnology and Compliance from Quincy College in Massachusetts and have been working in the biotech industry in the Boston area ever since.

What does your current job involve?

My main job responsibility is to purify proteins! I work for a company with expertise in the expression and purification of transmembrane proteins. Transmembrane proteins, like ion channels and G protein-coupled receptors, are involved in many diseases. Being able to express and purify these proteins is essential to developing antibody-based therapies for diseases that involve these proteins.

What advice would you give to someone interested in pursuing a career in biotech?

I was scared to change my career path to a different field, but I am so glad I did. There are lots of great jobs in biotech, and working in this field is exciting. It doesn't matter what you studied before or what type of job you have now—there are many ways to receive training in the biotech field.