

“...a passion for science and the ability to work effectively within a multidisciplinary team of people is critical.”

Bio-economy Career Profile

Position: Director, Discovery Research

Name: Dr. Shawn Ritchie

Company: Phenomenome Discoveries Inc.

Salary Range: As market demands

What I do:

Phenomenome Discoveries Inc. is involved in metabolic profiling and identifying metabolites in various biological samples using technology based on mass spectrometry; we develop technology and informatics to assist large pharmaceutical companies in the drug development pipeline, and use the technology internally to understand human diseases and develop better diagnostic approaches.

As Director of Discovery Research, I primarily oversee and manage the contract research projects and internal recovery efforts. My work involves managing and training teams of scientists working on specific projects, mining data, and writing client reports. I have a Ph.D. in Biochemistry focusing on cancer genomics, which serves me well when working on projects related to finding and identifying metabolite markers that are directly related to cancer. Our company also works on developing screening tools that can be used by the general population to predict risk for various diseases, for example, colon cancer.

What education and skills do candidates need for this position?

As a director, you require a Ph.D. in a life science, such as, biochemistry, organic chemistry, analytical chemistry, or possibly physiology. If you prefer laboratory work to management, a master's degree is probably satisfactory. Whether you decide to go the academic route or work within a company, it is a personal decision and there are many rewards with either choice.



New Ph.D. graduates typically continue in academia and then apply for associate positions at universities to continue research. However, I took a different route, as I wanted to work more independently with a smaller group and have an opportunity to

move forward within the company. I was drawn to the technology that our company was developing and was excited by its potential in the health sciences.

Since I can have up to 10 or 15 projects at one time, my management and people skills are constantly tested. In this position, you need to have solid laboratory skills, be able to think on the fly, troubleshoot, and discover new ways of handling data. A person in my position also needs to be well read and up on current literature in the field.

Above all, in this position you need to have a passion for science and the ability to work effectively within a multidisciplinary team of people. For example, I spend significant time working with computer programmers in the development of cutting edge bioinformatics software; synthetic organic chemists; clinicians; business development and marketing people; and even lawyers. It also helps to be an independent thinker and effective problem solver.

What are the best parts of your job?

I enjoy the high-tech, multidisciplinary nature of my work. But overall, it is the rapid translation of the discoveries into new diagnostics or therapeutics for cancer and neurological diseases that motivates me daily. The fact that the work we do will reduce the incidence of diseases and improve current treatments in a relatively short timeframe is very exciting.