



Melanie Davidson

Quality Control Chemist, Organigram Inc.

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Organigram Inc. is a licensed producer of cannabis and cannabis extract-based products. Organigram first began as a medical cannabis provider. Today, their focus is on producing high-quality cannabis for patients and adult recreational consumers in Canada. Based in Moncton, New Brunswick, they operate a 14-acre, state-of-the-art facility boasting advanced three-tiered cultivation technology and proprietary in-house software called OrganiGrow, with a target growth of 113,000 kg/year.¹

Melanie Davidson is one of the Quality Control Chemists on-site. Melanie's passion for chemistry was ignited in high school by one of her teachers. However, she also had a strong interest in Forensic Sciences, which is why she decided to attend Saint Mary's University. There, she enrolled in the Bachelor of Science program, while concurrently pursuing her Diploma of Forensic Sciences. In her second year of study, she applied to various student research positions, allowing her to work with Dr. Christa Brosseau. It was then that she discovered her love for Analytical Chemistry. Her first project was investigating pigments in an art piece located in Tibet, for which she was awarded the Murray Brooker Award for Best Undergraduate Oral or Poster Presentation in Chemical Education at Science Atlantic's ChemCon in 2016. Her passion for the subject and the recognition she received fueled her drive to continue in the field, eventually graduating with her Bachelor of Science (Honors Chemistry) and Diploma of Forensic Sciences. Not satisfied with the job prospects at that time, she returned to Saint Mary's to pursue her Master of Science degree in Applied Science, under the supervision of Dr. Christa Brosseau. Upon successfully defending her thesis, '*An exploration of 2D-LC-SERS: a novel offline detection modality for multidimensional chromatography*', she was hired at Organigram in her current position.

Reporting to the Lab Manager, under the umbrella of the Quality Assurance department, she describes her position as a chemist in the internal lab, where they do all in-house chemical analyses. Any officially reported levels of THC or other compounds are done by an external third party. One of the major tasks is the intermittent testing of plants to monitor specific compounds as the plant or material

¹ This is the target growth for when their facility is fully licensed and operational.

progresses through the process from growing to packaging. They also serve as a support for other departments of the company, such as the extraction lab. Besides this and other administrative tasks of emails and meetings, Melanie also keeps track of what items need to be ordered for the lab, has assisted in training of new workers, and conducts analytical method development.

When prompted about what she thinks would be the most important characteristics for someone working in her position, she separated it into two categories; industry skills and interpersonal skills. To work in the cannabis industry, she says individuals must be flexible. The field is still in its infancy and is ever-changing. Workers must know how to adapt to the changes being introduced as time advances. Additionally, they must know how to problem-solve, be creative and to think outside of the box, especially in the case of method development. Finally, time management is one of the key assets anyone could possess. Know how to prioritize the work based on deadlines, what takes longer and what can be done quickly. With regards to interpersonal skills, there is a lot of inter-departmental coordination occurring in her workplace. There are many meetings with different people, and multiple individuals work on the same projects. Teamwork is important and expected. You will not go a single day without talking to someone. Finally, being autonomous is an asset. Some days, when the harvest is low, other tasks need completing, and they are not always obvious. You need to know when to do these tasks and should not have to wait for instruction.

As for technical tools, knowing the various analytical methods such as HPLC, GC, and IR is a must. Analytical skills are also of utmost importance. Working in a clean space, knowing how to properly weigh and transfer are all useful and required. Additionally, having a base knowledge in good biological practices helps. Finally, being able to do research to get to know what you are unfamiliar with, and knowing when to ask for help are also important.

When asked whether she would change anything if she were to do it again, Melanie said that maybe upon her arrival at Organigram she would have tried to be a little more assertive and confident in her skills. She wishes she would have had a better understanding of imposter syndrome, because now she is right where she wants to be, but it took a little bit to feel like she was where she belonged. One thing she would change is that she would have considered doing a placement or working with other supervisors to get exposure to different management styles.

As for one piece of advice for someone looking to enter the workforce, Melanie said to be confident. You know what you know, and you went to school for this. You will always have the opportunity to continue learning, through experience or knowledge transfer from others.