Dr. Doug Vaughan

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Doug Vaughan is the Manager of Quality Projects for the Biologics Division of BioVectra Inc. Doug received his Bachelor of Science in Chemistry from Acadia University in 2008, where his undergraduate research involved synthetic chemistry and the coordination of cobalt. Following this experience, Doug decided to pursue a graduate degree in organic chemistry, where his graduate work involved the synthesis of medicinally important compounds using one-pot multi-component reactions. This technique is highly advantageous in order to improve yield and lower energy consumption for greener chemical synthesis. After receiving his master's degree from Acadia University in May of 2011, Doug then decided to pursue a career as an analytical chemist.

In October of 2011 Doug was hired by BioVectra Inc. as a Senior Chemist of the Quality Control lab in Charlottetown, Prince Edward Island. BioVectra Inc. is a contract development and manufacturing organization that serves pharmaceutical and biotechnology companies based and operates under current good manufacturing practice regulations. BioVectra Inc. has four facilities across Atlantic Canada with over ten product filings for both synthetic and biologic molecules and is an industry leader with specialities in the microbial fermentation, complex chemistry, biologics and drug development. As a Senior Chemist, Doug was in charge of supervising a team of three other chemists in meeting the required timelines that manufacturing

needed. In April 2016, Doug then took on the role of Research Scientist with the drug and product development group at BioVectra Inc. where he worked on reverse engineering brand labelled drugs to create generic alternatives.

In September 2017, Doug became the Manager of Analytical Services at the newest BioVectra facility in Windsor, Nova Scotia. In this role, he was in charge of establishing the new lab and defining what the capabilities were from an analytical standpoint. His responsibilities included reviewing quotes and tenders, as well as organizing suppliers for equipment and installation processes. Doug's group was also responsible for developing calibration and training documents of these equipment and supplied the phase appropriate validation documents for tests and assays to the quality control group. He was also involved in hiring quality control group positions, and supported the business development group with new customers and new project on boarding. In April of 2019, Doug joined his current role as Manager of Quality Projects in Biologics where he now manages a team of seven. His team is responsible for new project onboarding and phase-appropriate validation under ICH guidelines. They ensure that analytical methods meet the defined objectives and are executable within the quality control lab.

When asked about the excitement and challenges of his career, Doug remarks that some of the most fulfilling aspects of working with BioVectra has been the greater insight into therapeutics, which have a direct impact on patient's lives. From full spectrum standard reagents to life saving chemotherapies, kidney disease treatments, and animal therapies; Doug has said he has been involved in all of these projects and seen them at various stages of their lifecycles. The more challenging aspects of his career involve meeting business timelines and not letting perfectionism get in the way of business needs.

When reflecting on his time in graduate school, Doug believes the greatest skill he learned was critical thinking. This involves looking at what you are doing, recognizing the challenge, and

thinking through it to get to the answer. His advice to new graduates is to put out as many job applications as you can and not be picky for entry level jobs. Having a degree doesn't necessarily mean you will be where you want to be immediately: the biggest hurdle is getting a foot in door and establishing experience that your employer and future employers will value.

Some things he looks for in new hires include their experience, which includes real world applied knowledge, data management, and general software skills, as well as their understanding of regulatory requirements and good manufacturing practices. He also considers the educational requirements of the position and if their skills meet what is needed of them. In an interview situation, Doug appreciates when someone is able to admit that 'they don't know' when presented with an ambiguous question, given the fact that in a regulated environment taking a shot in the dark can be a bad thing to do. Doug highly encourages students to take advantage of Co-Op opportunities available through their education to gain real-world experience – it goes a long way on a job application!