SUCCESS STORY

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RJH Biosciences is a niche life sciences company based in Edmonton, Alberta, with worldwide partners. The discovery and engineering of novel materials that bear the features of endogenous vesicles has made it possible for RJH to develop a new technology in-house to effectively modify human cells using genetic materials, facilitating gene therapies. These technologies are ideal to deliver silencers against cancer-driving oncogenes.

RJH consistently hires students, allowing the company to explore new areas and complete studies where intensive work needs to be done in a timely fashion. Dr. Hasan Uludağ, President of RJH, enthusiastically acknowledges that students bring unique perspectives that may even alter RJH's operational paradigm for the better.

Jillian Claerhout, a second-year Biological Sciences student at the University of Alberta, is one of those students. She conducted an in-depth literature search in a particular area that better assessed the potential of RJH's current technology, as well as helped with specific experiments for proof-of-principle studies. For her part, Jillian says, "I applied to RJH to get hands-on experience in my field of interest. The Technical Analyst position touched on many topics I studied and enjoyed in school, such as cell biology and genetics, so I was eager to apply that knowledge. Lastly, I wanted to see what a career in science might look like to gain a better sense of what I could pursue after graduation."

During Jillian's internship, she also conducted an experiment exploring possible molecules that could be added to a previously optimized formula that would further improve its effectiveness of siRNA therapy in breast cancer cells, helped update the backend of the company website, and contributed to a graduate student's thesis experiment. Jillian's favourite part of her work term was seeing her efforts contribute to "something bigger." She says, "It's rewarding and motivating to know what seemed like a minute project became an important part in the big picture. For example, I worked on a few assignments that ended up in two scientific papers with authorship or on the RJH website. I guess that is all part of the scientific process; everyone working towards the common goal to further our knowledge."

If all that sounds impressive, it is. Dr. Uludağ notes that WIL funding helps to bring high-quality personnel (HQP) into RJH with minimal expenditure of resources. The WIL program extends operational reach significantly. He says, "The WIL program has made significant input in our technology development as well as enhancing our customer base and sales activity worldwide. Such a leap would not be possible without the HQP hired using the WIL program." Jillian agrees, saying, "The funding I received from WIL is

ultimately what allowed me to pursue this position. As a tuition and rent-paying student, it was not realistic for me to conduct a research project or work full-time in a lab without a source of income. Without it, I would have had to move home for the summer, where opportunities in my field are minimal." Jillian's future is bright, and she takes with her some excellent experience from her time at RJH. She leaves there and returns to school, noting, "My work at RJH helped me gain the confidence to conduct a year-long research course in my degree starting this fall. I'm excited to see where this next step takes me!" We are excited to see what comes next from both Jillian and RJH!

The RJH Biosciences team, Summer 2023