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I have been asked to share with you, some of the work that we have been conducting here at UPEI that is relevant to today's exciting announcement.

I recently completed my PhD in behavioural neuroscience here at UPEI. Briefly, behavioural neuroscience is the study of normal and abnormal brain function using fully conscious and freely behaving animal models. At UPEI, the behavioural neuroscience lab is currently a joint venture between Dr. Cathy Ryan in the Department of Psychology and Dr. Andy Tasker in the Department of Biomedical Sciences. In addition to myself as a post-doctoral researcher, there are currently 3 graduate students, 3 honours undergraduate students and 2 technicians in the lab, and our work is supported by a variety of federal and provincial funding agencies.

My PhD thesis work tested the idea that there are certain critical windows of early brain development, and that changes to that development, by the use of drugs or other foreign substances, might produce permanent changes in the brain. Understanding these changes is critical to understanding both childhood and later onset neurological disease.

One of the most exciting findings to arise from this work was that we produced what we believe to be the most clinically relevant developmental rat model of epilepsy ever described. To protect this technology, our team, in partnership with the University of Prince Edward Island, are pleased to have recently filed Canadian and US patent applications. The inventors are myself, Drs. Ryan and Tasker, Melissa Perry (a graduate student who also hails from PEI) and Dr. Henriette Bak-Jensen from Copenhagen.

To briefly summarize our work, epilepsy is a chronic disease characterized by abnormal electrical activity in the brain. The causes of epilepsy are largely unknown, and although there are a number of drugs available for treating epilepsy (currently over 20), population based studies have shown that the frequency of treatment failures is unacceptably high (up to 40%).

Because the cause of epilepsy in many patients is unknown, many prominent researchers in the field continually point to the need for the development of new clinically-relevant animal models of epilepsy. This would allow us to better understand the disorder, to then be able to find new and effective ways of not only treating the condition, but possibly even preventing its onset. We believe our model is a major step forward in this direction, and we are hoping to partner further with other scientists and the pharmaceutical industry to use it for new drug development.

We are very excited about this invention, both as scientists and entrepreneurs. Advancing the science is what people like me are trained to do, and we will continue to acquire research funding and publish our results to the medical science community. But in addition, commercialization of these kinds of scientific discoveries has considerable potential for increasing both the profile and the economic status of PEI and Atlantic Canada. My understanding is that today's announcement is all about making that easier, and as such I am very excited about the possibilities.

In closing I would like to particularly thank Dr. Katherine Schultz, our VP of research and development, and Dr. Gordon Bird, our technology transfer manager. They are the experts in the patent application process and would be much better at describing the hours, monies, and efforts invested in this part of the discovery. This is indeed foreign territory to most scientists, and yet it is a part of university research that we need to pursue and explore. Marrying scientific excellence with commercialization provides researchers with new avenues and opportunities to advance our work, as well as to translate our work into tangible economic benefits for the Region.

Thank you for your support and your attention

Tracy Doucette