

TWU professors awarded Discovery Grants



[Langley MP Mark Warawa congratulates TWU's Chad Friesen and Eve Stringham and their students on being awarded NSERC Discovery Grants](#)
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TWU Professor of Biology Eve Stringham, Ph.D., and Professor of Chemistry Chad Friesen, Ph.D., have been awarded a Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grants as part of a federal government initiative to invest, long-term, in research at universities across Canada.

Langley Member of Parliament the Honourable Mark Warawa visited the TWU campus to congratulate Stringham and Friesen, to hear more about their ongoing research, and to meet some of the student researchers who are involved.

"Our government has made record commitments to science, technology and innovation to the social and economic benefit of Canadians," said Warawa, who is also a TWU alumnus. "Today's investment in researchers like Trinity Western University's Eve Stringham and Chad Friesen will ensure that research powers Canadian business innovation to remain competitive on global markets, while creating jobs at home."

Stringham, who serves as the University's Vice Provost, Research and Graduate Studies, received a 5-year, \$150,000 grant titled *Signaling pathways that regulate cytoskeletal dynamics in Caenorhabditis elegans*. Her research is aimed at determining how the cytoskeleton, an intracellular network that supports cell structure and function, orchestrates a variety of cellular shape changes and movements.

Using techniques in genetics and cell biology, Stringham and her team of researchers will study a simple worm, *C. elegans*, as a model. Their research is aimed at identifying the external signals that activate the cell's internal machinery to induce cytoskeletal changes in the cell. Those cytoskeletal changes may enable a nerve cell to grow out during development, or aid in the transport of molecular cargo inside the cell.

“Discovery research doesn’t always have an obvious end goal,” said Stringham. “You’re studying a basic process that happens in cells. It’s more about understanding, fundamentally, how the process works. It’s about having faith that pure discovery research for the sake of understanding the natural world will inevitably lead to useful applications.”

Another well-respected researcher, Friesen will build on his previous work on perfluorinated alkoxides (PFAs), or fluorinated salts. These PFAs have been thought to be difficult to prepare, making their use prohibitive in many research fields. Friesen’s team, however, has developed a simple reaction that bridges this gap in fluorine chemistry—one that will have a significant impact on four important industries: fluoropolymer, medical, electronic, and energy.

For Stringham, the funding allows her to recruit members of her research team, which includes graduate students from Simon Fraser University (where she serves as Adjunct Professor) as well as undergraduate students from Trinity Western. “This funding allows us to build new opportunities for TWU’s undergraduate students,” she said. “Our students will gain exposure to mentors from SFU’s graduate program, which gives them the benefit of both institutions.”

As with all of the grant recipients, Stringham’s and Friesen’s grant applications were chosen by a peer review process. “Our scholarship and faculty research is being recognized for its value,” said Stringham. “We’re doing good, solid science here, science that is recognized for being legitimate and of significance.”

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