

**Thompson Rivers University**  
**ENVIRONMENTAL SCIENCES SEMINAR SERIES**  
*Fall 2025*

Guest speaker information

<b>Name of guest speaker:</b>	Karen Fong, PhD
<b>Current affiliation:</b>	Research Scientist, Food Microbiomics, Agriculture & Agri-Food Canada
<b>Seminar date:</b>	October 30, 2025
<b>Title of seminar:</b>	Phages in the Environment: (Ph)riends and (Ph)oes

**Abstract:** 5-8 lines in length, non-technical, written to be accessible and "catchy" to a general audience

Bacteriophages (phages) are viral predators of bacteria found ubiquitously in the environment, with estimates of up to  $10^{31}$  virions present in the biosphere. In fact, it is estimated there are more phages than there are grains of sand on Earth! Phages play many roles in the environment, such as driving bacterial evolution through gene transfer, contributing to biogeochemical cycling and elimination of pathogenic bacteria in various settings. However, they can also be pervasive as they are contributors to antimicrobial resistance and can inhibit fermentation processes in the food industry. This seminar will discuss how scientists harness their innate antimicrobial “powers” to benefit One Health, while keeping in mind that these “powers” can come with a cost if left unchecked. Recent advances in phage-host interactions will be discussed with a focus on Dr. Fong’s past and ongoing research.