



*Planetary Stewardship*

**Research & Innovation**  
WEEK MARCH 7 - MARCH 11, 2022  
Lakehead University

~ SCIENCE SPEAKER SERIES ~

# Viral Disease Through the Lens of Geometry: Novel opportunities for anti-viral therapy and virus nanotechnology

**MONDAY, MARCH 7, 2022  
7:00 PM**

Mathematical modelling provides a novel perspective on the mechanisms by which viruses assemble, evolve and infect their hosts. Models of viral geometry have been instrumental in the discovery of genome-encoded virus assembly instructions and reveal details of how this assembly mechanism works in different viruses. These insights are exploited in the fight against viral disease, and inform applications in virus nanotechnology, gene therapy and vaccinology.

**Register for this event**



Reidun Twarock is Professor of Mathematical Virology at the University of York in the UK. Her research at the interface of mathematical modelling, bioinformatics, biophysics and virology has contributed to the discovery of genome-encoded virus assembly instruction, that she is exploiting in collaboration with experimentalists and industrial contacts for applications in therapy and virus nanotechnology. She is an EPSRC Established Career Fellow, a Royal Society Wolfson Fellow, and a Wellcome Trust Investigator, and the 2018 recipient of the Gold Medal of the Institute of Mathematics and Its Applications.



For more information:  
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