OMNI | RÉUNIS

OMNI
One Health Modelling Network
for Emerging Infections

RÉUNIS
Réseau une seule santé sur la
modélisation des infections

OMNI-RÉUNIS 2022 DISTINGUISHED LECTURE SERIES

JUNE 1, 2022 | 11:00-12:15 EDT

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ABOUT THE SERIES

OMNI-RÉUNIS is excited to host the first of many lectures as part of its inaugural Distinguished Lecture Series, where we aim to establish the relevance and importance of the various fields and disciplines working to advance research in modelling emerging infectious diseases and reflect on how to include a One Health approach in doing so. Experts are invited to share their research from the lens of their domain in public health, wild and domestic animal health, environment, and the One Health approach, focusing on research problems, data collection and sources, challenges, and the relevance of their fields to modelling. The OMNI-RÉUNIS Distinguished Lecture Series is a high-profile event that is open to all including our network members across 23 academic institutions and collaborators from more than 28 national and international organizations, networks part of the Emerging Infectious Diseases Modelling Initiative (EIDM), funding agencies Natural Sciences and Engineering Research Council of Canada (NSERC) and Public Health Agency of Canada (PHAC), as well the general audience to reach many beyond the traditional academic settings.

LECTURE #2
COVID-19 IN THE UK:
DATA, MODELS, PROJECTIONS AND POLICY

ABSTRACT

The SARS-CoV-2 virus has highlighted our vulnerability to zoonotic infections, and has important lessons in terms of a One Health approach. In this talk, I'll focus on how the pandemic has developed in the UK over the past two years. In particular, I will concentrate on the link between data and models, and how this has enabled a continual refinement of projections as more epidemiological knowledge is integrated into the modelling frameworks. I'll start with the modelling response to the first wave, when very little was known about the virus; I'll discuss the implications of vaccination and the relaxation of control measures; ending with the Omicron variant and the potential risk of future variants. In each case the models and projections are driven by new data and new policy questions. I'll conclude with thoughts about what we could have done better and lessons for the next pandemic.

DR. MATT KEELING

Dr. Keeling is a Professor in the Mathematics Institute and the School of Life Sciences at the University of Warwick. His focus is on the three E's: Epidemiology, Evolution and Ecology. He is particularly interested in how spatial structure, heterogeneities, and stochasticity affect emergent population-level dynamics. Keeling's other interests include optimal control of infection, cost-effective vaccination, policy-relevant prediction, vector-host dynamics, within-host immunological dynamics, disease evolution in response to control, climate, and population change.

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