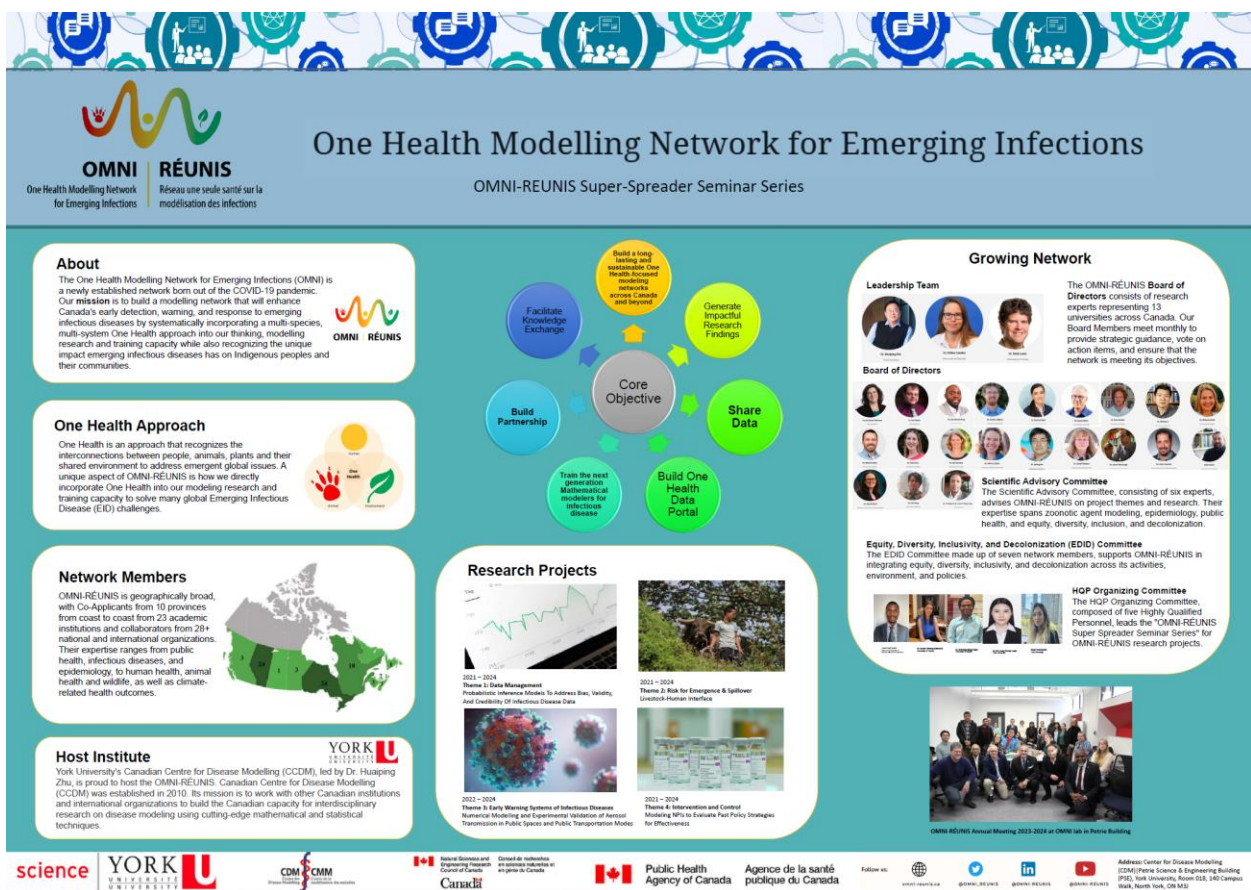


On November 15<sup>th</sup> 2024, [OMNI-RÉUNIS Network](#) participated in a [Y-EMERGE – CDM Modelling Fair](#). The event was staged at York University’s Keele Street Campus and was visited by both students and faculty who learned about various mathematical modelling networks and projects/programmes that used at the university for teaching purposes or conducting their research. It was also an opportunity to showcase projects and network with visitors and other researchers.



**One Health Modelling Network for Emerging Infections**  
OMNI-RÉUNIS Super-Spreader Seminar Series

**About**  
The One Health Modelling Network for Emerging Infections (OMNI) is a newly established network born out of the COVID-19 pandemic. Our mission is to build a modelling network that will enhance Canada’s early detection, warning, and response to emerging infectious diseases by systematically incorporating a multi-species, multi-system One Health approach into our thinking, modelling research and training capacity while also recognizing the unique impact emerging infectious diseases has on Indigenous peoples and their communities.

**One Health Approach**  
One Health is an approach that recognizes the interconnections between people, animals, plants and their shared environment to address emergent global issues. A unique aspect of OMNI-RÉUNIS is how we directly incorporate One Health into our modeling research and training capacity to solve many global Emerging Infectious Disease (EID) challenges.

**Network Members**  
OMNI-RÉUNIS is geographically broad, with Co-Applicants from 10 provinces from coast to coast from 23 academic institutions and collaborators from 29+ national and international organizations. Their expertise ranges from public health, infectious diseases, and epidemiology, to human health, animal health and wildlife, as well as climate-related health outcomes.

**Host Institute**  
York University’s Canadian Centre for Disease Modelling (CCDM), led by Dr. Huiping Zhu, is proud to host the OMNI-RÉUNIS Canadian Centre for Disease Modelling (CCDM) was established in 2010. Its mission is to work with other Canadian institutions and international organizations to build the Canadian capacity for interdisciplinary research on disease modeling using cutting-edge mathematical and statistical techniques.

**Research Projects**

- 2021 – 2024  
Theme 1: Data Management  
Probabilistic Inference Models To Address Bias, Validity, And Credibility Of Infectious Disease Data
- 2021 – 2024  
Theme 2: Risk for Emergence & Spillover  
Livestock-Human Interface
- 2022 – 2024  
Theme 3: Early Warning Systems of Infectious Diseases  
Numerical Modelling and Experimental Validation of Aerosol Transmission in Public Spaces and Public Transportation Modes
- 2021 – 2024  
Theme 4: Intervention and Control  
Modeling RPTs to Evaluate Post-Pandemic Policy Strategies for Effectiveness

**Core Objective**  
Build a long-lasting and sustainable One Health-focused modelling network across Canada and beyond

**Facilitate Knowledge Exchange**  
**Build Partnership**  
**Train the next generation of Mathematical Modelling researchers for infectious diseases**  
**Build One Health Data Portal**  
**Share Data**  
**Generate Impactful Research Findings**

**Growing Network**

**Leadership Team**  
The OMNI-RÉUNIS Board of Directors consists of research experts representing 13 universities across Canada. Our Board Members meet monthly to provide strategic guidance, vote on action items, and ensure that the network is meeting its objectives.

**Board of Directors**

**Scientific Advisory Committee**  
The Scientific Advisory Committee, consisting of six experts, advises OMNI-RÉUNIS on project themes and research. Their expertise spans zoonotic agent modeling, epidemiology, public health, and equity, diversity, inclusion, and decolonization.

**Equity, Diversity, Inclusivity, and Decolonization (EDID) Committee**  
The EDID Committee made up of seven network members, supports OMNI-RÉUNIS in integrating equity, diversity, inclusivity, and decolonization across its activities, environment, and policies.

**HQP Organizing Committee**  
The HQP Organizing Committee, composed of five Highly Qualified Personnel, leads the “OMNI-RÉUNIS Super-Spreader Seminar Series” for OMNI-RÉUNIS research projects.

**OMNI-RÉUNIS Annual Meeting 2023-2024 at OMNI Lab in Pavia Building**

The picture above is a poster that was created for the OMNI-RÉUNIS display station. It highlights achievements and other important information about the network.



In this picture, network members and visitors to the display station were joined by one of the university's teaching staff, Professor Woldegebriel Assefa Woldegerima who is also a OMNI-RÉUNIS network member.