

LECTURE SERIES 2026

CAUSAL INFERENCE METHODS FOR REAL-WORLD DATA



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05 FEB 2026
Thursday

LECTURE

MEET & EAT *

Light lunch provided

Conference room – Maison des Sciences Humaines

11.00am - 12.00pm

12.00pm - 1.30pm



Policy Relevant Effects in Infectious Disease Studies

ABSTRACT

When facing infectious diseases, healthcare professionals must make decisions under uncertainty. Certain considerations are frequently recurring in this process. Knowing whether a vaccine's effect wanes is important for determining the timing of seasonal flu shots or assigning COVID-19 boosters. Understanding whether a vaccine has heterogeneous effects on different subtypes, such as Malaria variants, has implications for the development of new treatments. Whether vaccinating a subgroup of individuals is sufficient to reach herd immunity, due to spill-over effects, shapes public health policies. Although the previous plain English sentences might seem clear, I will argue that terms like "waning", "heterogeneous effects", and "spill-over" are ambiguously interpreted. I will then propose ways to clarify these terms based on theory and methods for causal inference. Using Malaria, HIV, influenza, and COVID-19 as illustrative examples, I will show that these clarifications matter in practice. In particular, I will leverage the clarifications to define new treatment effects in vaccine settings, which sometimes justify existing analytic approaches and also motivate new methods that are feasible to implement.



SPEAKER

Mats Julius Stensrud

Associate Professor, Chair of Biostatistics
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RESPONSIBLE SCIENTIST

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*Please note that registration for Meet and Eat is
mandatory via the following link:

<https://survey.lih.lu/index.php/124617?lang=en>



Location:

Lecture:

Maison des Sciences Humaines

Room: Conference room

11 porte des Sciences

L-4366 Esch-sur-Alzette, Luxembourg

JOIN

Event number: 2795 672 8004

Event password: tZ236kyqWke

<https://mylih.webex.com/mylih/j.php?MTID=maef74326a5d1b361661585849b60d887>

