| ISPM | Institute of Social and Preventive Medicine |
| BIHAM | Berner Institut für Hausarztmedizin |
| CTU | Clinical Trials Unit |

u^b

b
UNIVERSITÄT
BERN

**Dr. Rachel Lowe** is an Associate Professor and Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene & Tropical Medicine, researching the impacts of global environmental change on infectious disease risk. She leads a group of statisticians, epidemiologists and ecologists working between the Centre on Climate Change & Planetary Health and the Centre for Mathematical Modelling of Infectious Diseases.

She obtained a PhD in Mathematics from the University of Exeter, UK. Her thesis concerned spatio-temporal modelling of climate-sensitive disease risk, with a focus on early warning systems for dengue in Brazil. She held postdoctoral positions at the International Centre for Theoretical Physics in Trieste, Italy, and the Catalan Institute for Climate Sciences (IC3) in Barcelona, Spain, working at the interface of climate prediction science and public health decision-making. Rachel is a member of the World Meteorological Organization COVID-19 Research Task Team.

# «Linking Earth observations to infectious disease decision support systems»

Among extrinsic factors that might affect COVID-19 transmission dynamics, the potential influence of weather conditions and seasonality remain unclear. Respiratory viral infections often show seasonality, with influenza and other coronaviruses peaking in winter, yet the underlying mechanisms are poorly understood. As SARS-CoV-2 is a new virus to humans, it is difficult to ascertain if seasonal climate variations might enhance or reduce transmission in the first pandemic wave given the high proportion of susceptible people and the potential confounding role of different types of local containment measures adopted at different times after the onset of local outbreaks. In this talk, I will present a methodological approach to detect weather-dependent signatures in the transmission of a novel virus. Building on previous work incorporating climate forecasts and Earth observations into decision support frameworks for dengue and malaria, I will discuss the implications and challenges associated with using climate information to support the COVID-19 response.

Join the lecture on Thursday, 12 November 2020 at 1:00 pm in room 320 or online on zoom!

**For those who like to participate on-site:** Please register by e-mail (amoya.ramseyer@ispm.unibe.ch) **by 11 November 2020**.
**First come, first serve!**

Join the lecture on zoom:

https://unibe-ch.zoom.us/j/95065114487?pwd=NXg4dU5RM2ZEU3MrNHF5b3pBdnFIZz09
(Meeting ID: 950 6511 4487, Passcode: 390843)

The Bern Lectures