The Institute of Social and Preventive Medicine (ISPM), University of Bern, employs over 100 staff, provides undergraduate and post-graduate teaching and carries out research in a range of disciplines relevant to clinical epidemiology and public health.

We have one or two vacant positions in

**Mathematical Modelling of Infectious Diseases (80-100%)**

To contribute to projects about the scale up of antiretroviral therapy in sub-Saharan Africa, including the spread of drug resistance to HIV and tuberculosis, and about the effectiveness and cost-effectiveness of new methods of partner notification for chlamydia infection. Other relevant ISPM projects include studies of the spread of antimicrobial resistance in bacterial sexually transmitted infections such as gonorrhoea and *Mycoplasma genitalium* projects, and the (sexual) transmission of Zika virus. The projects are funded by the US National Institutes of Health (NIH), UK National Institute of Health Research and/or the Swiss National Science Foundation (SNSF).

**Responsibilities of the successful candidates include:**

- Collaborate with epidemiologists and statisticians to address pertinent research questions, including the real-world effectiveness of healthcare intervention in Switzerland and internationally.
- Develop, parameterise, and analyse mathematical models of infectious disease dynamics, including compartmental and individual-based models.
- Train and supervise junior staff, contribute to supervising PhD students.
- Contribute to the identification of relevant empirical data through systematic reviews.
- Contribute to pre-model data analysis in collaboration with statisticians.
- Communicate results through presentations and scientific publications in peer-reviewed journals.
- Contribution to post-graduate teaching (possible but not required).

**Requirements:**

- An interest in research in global health and infectious diseases.
- A Master or PhD degree in a relevant discipline (e.g. computational biology, mathematics, physics, statistics, epidemiology).
- Expertise and experience in developing and working with transmission dynamic models.
- Strong quantitative skills and programming skills, preferably using R.
- Excellent knowledge of English (knowledge of German or French would be an advantage)

The posts are initially offered for 2 years, with flexible starting dates. Salary is commensurate with experience.

Please send your application, including *curriculum vitae*, and letter of motivation as soon as possible by e-mail to matthias.egger@ispm.unibe.ch, with copy to hr@ispm.unibe.ch at Institute of Social- and Preventive Medicine, Finkenhubelweg 11, CH-3012 Bern, Switzerland.