The Swiss Tropical and Public Health Institute (Swiss TPH) is a world-leading institute in global health with a particular focus on low- and middle-income countries. Associated with the University of Basel, Swiss TPH combines research, education and services at local, national and international levels. 900 people from 80 nations work at Swiss TPH focusing on infectious and non-communicable diseases, environment, society and health as well as health systems and interventions.

The Department of Epidemiology and Public Health (EPH), within the Swiss Tropical and Public Health Institute, develops and applies epidemiological, statistical and mathematical methods to advance innovation, validation, and application in the field of public health. Within the Disease Modelling Unit of EPH we are looking for a:

**Senior Scientist or Postdoctoral Scientist in malaria modelling with a focus on vector control (80-100%)**

for an exciting opportunity to develop and implement disease and vector biology models to support decision making in health.

There are many open questions concerning the assessment of new and current vector control interventions for the control and elimination of malaria that can only be answered through quantitative analysis, disease modelling and simulation.

The successful candidate will join, and collaborate with a multidisciplinary team within Swiss TPH and external partners, to provide evidence to global decision-makers, funders and product developers. The project is funded the Bill & Melinda Gates Foundation.

**Your responsibilities include:**

- Undertaking mathematical and statistical modelling and simulation to improve implementation strategies of current and novel interventions on the transmission and disease burden for malaria with a focus on vector control interventions
- Using and developing disease models
- Analyzing entomological and epidemiological field data (including data from randomized control trials)
- Aggregating and analyzing results of large numbers of simulations

**You should have the following experiences and skills in:**

- PhD in mathematics, statistics or a related discipline. e.g.: quantitative epidemiology, ecology modelling, computational biology
- Strong mathematical and statistical modelling skills
- Strong programming skills (in at least one of Python, R, Matlab, C/C++), preferably with experience in working with a version control system (preferably Git) and in using high performance computing clusters
- Expertise/background and interest in areas of infectious disease modelling
- Expertise/background and interest in the epidemiology of parasitic diseases, especially malaria; vector ecology and/or entomology
- Ability to deliver high quality research and to publish in peer reviewed journals
- Effective communication skills in spoken and written English, with good presentation skills
• Ability to work independently and as part of an interdisciplinary team on large research projects in a culturally diverse environment
• Capacity to initiate, plan, implement and deliver programs of work to tight deadlines

Applicants with previous expertise in infectious disease modelling are especially encouraged to apply. Swiss TPH is an equal-opportunity employer. Applicants from the global South and from backgrounds that are traditionally underrepresented in academia are encouraged to apply.

Salary will be commensurate with experience (as a minimum based on the Swiss National Science Foundation Postdoc salary scale). The position is intended to be full-time (100%), but candidates hoping to work part-time will be considered.

Please submit your application online via the link provided below with:
• CV
• Motivational letter
• Names and contact information (email or phone) of 3 references
(Recommendation letters are not expected at this stage.)

The closing date for applications is the **31st of October 2022**, but applications will be considered as soon as submitted.

Please note that we can only accept applications via our online recruiting tool: [https://jobs.swisstph.ch/Jobs/All](https://jobs.swisstph.ch/Jobs/All). Applications via e-mail or external recruiter will not be considered.

Contact:
For further information about the position please visit our website [https://www.swisstph.ch/en/about/eph/disease-modelling/](https://www.swisstph.ch/en/about/eph/disease-modelling/) or contact PD Dr. Nakul Chitnis (nakul.chitnis@unibas.ch).

**Job Profile:**
Start Date: 1 January 2023 or upon agreement
Location: Allschwil, Switzerland
Duration: limited contract of two years
Percentage: 80-100%
Travel Required? limited, just for conferences and meetings