



<sup>b</sup>  
UNIVERSITÄT  
BERN

## PhD candidate in Biostatistics (100%)

We are seeking a PhD student to work on the project “**Evidence synthesis methods to predict personalized treatment effects**” at the Institute of Social and Preventive Medicine (ISPM), in the University of Bern. This is a four-year project, funded by the Swiss National Science Foundation. The overarching aim of the project is to develop new statistical methods for tailoring the choice of treatment to the individual characteristics, needs, and preferences of patients. The main objectives of the project are to develop new statistical methods for:

- (i) predicting treatment efficacy and safety at the individual level (“personalized medicine”)
- (ii) estimating effects of different dosing schemes of interventions
- (iii) evaluating the performance of models predicting individual treatment effects.

All methodological developments will be illustrated in real medical examples, using datasets from mental health, cardiology, neurology and rheumatology. The post holder will have the opportunity to collaborate with world leading experts in evidence synthesis, biostatistics, and epidemiology, and will acquire expertise in a wide range of skills.

### Duties and responsibilities:

- Perform original research on developing statistical methods for predicting the effects of medical interventions.
- Analyse real data collected in RCTs.
- Develop easy-to-use online tools that will implement developed methods in clinical examples.
- Collaborate with scientists in Bern and abroad.
- Present results in international conferences and publish them in peer-reviewed journals.

### Qualifications and skills:

- A university degree (MSc or equivalent) in biostatistics, statistics or another quantitative discipline such as applied mathematics, mathematical physics, or computer science.
- Programming skills in R (preferably), or another programming language.
- Fluency in English both written and oral.
- Some experience with the following would be desirable: Bayesian methodology, meta-analysis, machine learning.

### What we offer:

- Working in an international, multidisciplinary and highly stimulating environment.
- Collaboration with world-renowned experts in Switzerland and abroad.
- Support for career development and training. A wide range of courses offered by the University of Bern (<https://www.ghs.unibe.ch/>)
- Salary according to the regulations of the Swiss National Science Foundation for PhD students (approximately CHF 50,000 per annum plus social security contributions)
- Flexible working hours; centrally located and modern offices in a nice building.

The post starts between 01/2025 and 3/2025 (negotiable) and is for 3.5 years. **Please apply no later than 30/11/2024.** For further information on the position, please contact Prof. Georgia Salanti ([georgia.salanti@unibe.ch](mailto:georgia.salanti@unibe.ch)) and Dr. PD Orestis Efthimiou ([orestis.efthimiou@unibe.ch](mailto:orestis.efthimiou@unibe.ch)).

Please send your application in one PDF file to Ms. Natalie Studer, [hr.ispm@unibe.ch](mailto:hr.ispm@unibe.ch). Applications must be written in English and should include the following:

1. curriculum vitae, including contact details of two academic or professional referees.
2. a cover letter with a personal statement describing your motivation (max 1 page).