PhD-Thesis in Biostatistics & Data Science, Roche Diagnostics R&D, Site Penzberg/Greater Munich (m/f/d)

Who we are

With more than 12,000 employees Roche Diagnostics GmbH (RDG) represents the third largest site within Roche. Apart from the two sales organizations in Germany (Roche Pharma AG and Roche Diagnostics Deutschland) RDG is focused on the operative business. At the two sites in Mannheim and Penzberg new diagnostic tests and pharmaceutical active ingredients are developed and produced for the global market.

Your PhD-Thesis

As part of your doctoral thesis entitled "Algorithms for generating medical value", you will be working on the scientific development of novel algorithms with the aim of generating medical value by deriving reference intervals from real-world data. You will spend about 50% of your time researching at Roche and 50% at the University Hospital Erlangen.

In particular, you will become familiar with the following tasks:

- You will optimize accuracy, performance and usability of the algorithms.
- You will design a library of test cases, develop and implement the appropriate test-module to generate evidence for the correctness of the algorithms.
- You will apply the algorithms to different real-world data sources and evaluate results.
- You will document program code and prepare presentations of your work.
- You will present results of your development at Roche internal meetings and at international scientific congresses.
- You will publish results of your development in peer-reviewed scientific journals.

Time period: Start in November 2019 possible (or later by arrangement) for a period of 3 years.

Your Department

This PhD-Thesis position is a cooperation project between the Department of Biostatistics and Data Science at Roche in Penzberg and the Department of Pediatrics and Adolescent Medicine at the University Hospital Erlangen.

At Roche you will work within Diagnostics R&D in a multi-disciplinary team that supports all different stages of the life cycle of in-vitro diagnostics products. It is our aim to develop and establish novel statistical methods for answering questions in the environment of laboratory medicine.

The Department of Pediatrics in Erlangen is a comprehensive tertiary care center treating children of all age groups. The independent pediatric laboratory performs a broad range of routine and highly specialized laboratory tests, with a research focus on statistical methods and data mining for clinical decision making.

Who you are

- You hold a degree in statistics, mathematics, (bio)informatics or comparable.
- You have the qualification required for a PhD thesis at the University of Erlangen in your respective field.
- You have strong programming skills (e.g. in R, C/C++, Fortran, Python) and theoretical knowledge in mathematics and/or statistics.
- Knowledge and interest in the field of in-vitro diagnostics is an advantage.
- You have fun and interest in solving complex mathematical problems, which helps answering medical questions.
- You enjoy working in (interdisciplinary) teams.
- You are open to travel between Penzberg (approx. 50%) and Erlangen (approx. 50%).

Your Benefits

- Flexible time management
- Monthly recognition grant
- Fitness Centre on the Roche Campus
- Networking with other students and PhDs on site
- Possibility of a temporary accommodation in the Roche Boarding House or assistance in finding accommodation in Penzberg
- Well organized transport connections to Munich with our Roche-Shuttle (fee required)

Your application

Very pragmatic: Please apply online under the following link and upload your CV online. Please also highlight your possible start date in your CV.

Contact: Ms. Eva Moosmang
Phone: +49 8856/60 2967

www.roche.de/careers
Job-ID: 201909-127096

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