



Bioinformatician – Nextflow Plugin and Workflow Developer (m/w/d; E13 TV-L)

Are you passionate about bioinformatics and eager to raise awareness about the environmental impact of science? Do you want to support our mission to make bioinformatics research more environmentally sustainable?

About the position

The Quantitative Biology Center (QBiC) is a bioinformatics core facility at the Eberhard Karls University Tübingen, one of eleven German universities distinguished as excellent under the German government's initiative. We support researchers at the University of Tübingen and across Germany by providing Next Generation Sequencing and Mass Spectrometry data analysis and management through collaborations and service projects.

The aim of this position is to 1) develop a production-ready Nextflow plugin for estimating the carbon footprint of Nextflow pipeline runs, and 2) use this tool to reduce the carbon footprint of nf-core (<https://nf-co.re/>) workflows deployed at QBiC and the broader bioinformatics community.

We are currently seeking a **Bioinformatician - Nextflow Plugin and Workflow Developer** to join our Research and Development in Data Science (RDDS) team:

- Fixed-term position for 2 years (TV-L E13)
- Full time or part-time employment is possible
- Earliest start date: February 2025

Your role

- Developing the Nextflow plugin nf-co2footprint for estimating the carbon footprint of Nextflow pipeline runs.
- Implementing bioinformatics solutions to integrate external data sources and add support for cloud systems.
- Optimizing nf-core pipelines with respect to their energy consumption and CO₂e emissions, for example, by optimizing computational resource requests, pipeline settings, and algorithmic implementations.
- Collaborating with multi-disciplinary teams, including those from other research institutes, to conduct real-world case studies.



- Researching existing bioinformatics methods.

Your profile

- The ideal candidate will hold an MSc or PhD in Bioinformatics, Biotechnology, or other Life Sciences with programming experience, or an MSc or PhD in Computer Science with previous NGS data analysis experience.
- Proficiency in programming is required (e.g. Python, Java).
- Experience with working in a Linux/Unix environment is required.
- Previous experience with workflow management systems (e.g. Nextflow, Snakemake) and NGS data analysis is a plus.
- Experience with HPC clusters, cloud computing and container engines will be beneficial but is not required as training opportunities are provided.
- Excellent communication skills and a collaborative mindset.
- Enthusiasm and a commitment to research.

What do we offer?

- Working in an interdisciplinary and international team of researchers.
- Participation in exciting projects focused on making research more environmentally sustainable, as well as projects that apply diverse methods for omics data analysis.
- Being part of the nf-core and Nextflow communities for collaborative, peer-reviewed, best-practice bioinformatics pipelines.
- Participating in international hackathons and meetings to improve our methods.
- A collegial work atmosphere.
- Training opportunities in the Nextflow workflow language, cloud and HPC computing, FAIR data analysis.

Are you up to the challenge?

Please send a motivation letter and curriculum vitae as one PDF via email to Katrin Leichtle (katrin.leichtle@qbic.uni-tuebingen.de). The **deadline for applications is November 4th, 2024**.

Equally qualified applicants with disabilities will be given preference in the hiring process. The university is committed to equal opportunities and diversity. Women are expressly encouraged to apply. The employment will be carried out by the central administration of the University of Tübingen.