

The German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig is one of four National Research Centres funded by the German Research Foundation (DFG). Its central mission is to promote theory-driven synthesis and data-driven theory in this emerging field. The concept of iDiv encompasses the detection of biodiversity, understanding its emergence, exploring its consequences for ecosystem functions and services, and developing strategies to safeguard biodiversity under global change. It is located in the city of Leipzig and it's a central institution of the University Leipzig, jointly hosted by the Martin-Luther-University Halle-Wittenberg, the Friedrich Schiller University Jena and the Helmholtz Centre for Environmental Research (UFZ). Furthermore, it gains support by the Max Planck Society, the Leibniz Association and the Free State of Saxony. More Information about iDiv: www.idiv.de.

The Friedrich-Schiller-University Jena offers the following position at the next possible date, latest September 2018, at iDiv in Leipzig:

Postdoctoral researcher in Genome Sequencing

in the group of Prof. Dr. Manja Marz at the Friedrich Schiller University Jena
(limited to 2 years in full time, Salary: Entgeltgruppe 13 TV-L)

Severely disabled persons are encouraged to apply and will be given preference in the case of equal suitability.

Background:

To record biological diversity is fundamental but faces many challenges. A modern way to achieve this goal on a molecular level is genome or transcriptome sequencing by third generation sequencing methods. To analyse genomes and transcriptomes from all organisms e.g. in soil or gut of insects, we usually use different (wet-lab) extraction protocols:

(i) for bacteria we use a metagenomic approach and sequence the sample; (ii) for fungi from the same samples we typically use a different protocol for cell disruption before sequencing; (iii) for (DNA-)viruses size filtration is needed before sequencing; (iv) for RNA-viruses we need combined protocols of size fragmentation and RNA extraction before sequencing. Sometimes (v) a common host needs also to be sequenced and (vi) analysing transcriptome and genomes becomes more important. Instead of sequencing about 10 times the same sample (from different extraction protocols) to obtain the complete biodiversity, the aim of the researcher will be to develop a method to multiplex organisms from different kingdoms into one sequencing approach. We will use different spike-ins as quantitative controls.

Topic/job description:

- Coordination and design of various DNA and RNA extraction methods
- Design and calculation of various HTS sequencing approaches
- De novo assembly of viruses, bacteria and higher organisms
- Development of a de novo multi-species assembly tool

Requirements:

- PhD degree in bioinformatics, computational biology or a related area
- Deeper knowledge in statistics
- knowledge in handling with large data sets (up to 500 Terrabyte)
- experience in Programming in a script language (Python) and an object oriented language and Linux on command line
- experience with Illumina sequencing data and Minlon data is desirable
- high motivation and the ability to work both independently and in a team

Applications with reference file number 162/2018 are accepted until 19 July 2018.

All applications should include:

- A one-page cover letter (in English) describing motivation, research interests & relevant experience
- Two contact details of former PIs for recommendation

- Publication list
- Curriculum vitae
- Copy of doctoral certificate

Please use our application portal under apply.idiv.de.

Kindly use our application portal under www.apply.idiv.de. Hard copy applications can be sent to German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig, Dr. Hanna Weise; Deutscher Platz 5e, 04103 Leipzig. For queries on the application process, please contact Dr. Hanna Weise (hanna.weise@idiv.de); for research project questions, please contact Prof. Dr. Manja Marz (manja@uni-jena.de).

Applying via email is questionable under data protection law. The sender assumes full responsibility.

Please consider our application information: http://www.uni-jena.de/stellenmarkt_hinweis.html.