



VIVIAN B. BRANDENBURG

Dr. rer. nat. Biologie

Bioinformatics

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PROFESSIONAL CAREER

Postdoctoral Researcher Bioinformatics Group

 since 2023

 Ruhr University Bochum

- Development of new deep learning methods in phylogeny
- Implementation of Explainable AI
- Supervision of students in lectures, courses and theses

Doctoral Researcher Microbiology & Bioinformatics Group

 2019 – 2023

 Ruhr University Bochum

- Development of new deep learning methods for RNA structure prediction
- Transcriptome analyses
- Interdisciplinary communication of bioinformatic methods and results

ACADEMIC CAREER

Dr. rer. nat. summa cum laude

 2019 – 2023

 Ruhr University Bochum

M. Sc. Biology 1.1

 2017 – 2019

 Ruhr University Bochum

- Specialisation in bioinformatics
- Development of the data processing of a new method for RNA structure mapping in the final thesis
- Optional subject and teaching assistant in database systems

M. Sc. Biology

 2014 – 2017

 Martin Luther Univ. Halle-Witt.

- Specialisation in crop science
- Research internship in agricultural application research at SKW Piesteritz

B. Sc. Biology 2.2

 2011 – 2014

 Leipzig University

- Thesis in crop biology on nitrogen uptake in wheat

B. A. Political Sciences 2.3

 2007 – 2011

 Leipzig University

- Research internship in the Science Policy Interface working group at the Helmholtz Centre for Environmental Research

STRENGTHS

Insight-orientated deep learning

Transcriptomics

Explainable AI

Innovative Thinking

Familiarisation with new topics

Interdisciplinary communication

LANGUAGES

Python



Bash



R



PUBLICATIONS

- Schmidt*, Remme*, Eisfeld, **Brandenburg**, Bille, Narberhaus, 2024: **The LysR-type transcription factor LsrB regulates beta-lactam resistance in Agrobacterium tumefaciens**, *Mol Microbiol*, 121(1). doi:10.1111/mmi.15191
- **Brandenburg**, Hack, Mosig, 2023: **A quartet-based approach for inferring phylogenetically informative features from genomic and phenomic data**, *publiziert in Dissertation*. doi:10.13154/294-10571
- **Brandenburg**, Narberhaus, Mosig, 2022: **Inverse folding based pre-training for the reliable identification of intrinsic transcription terminators**, *PLOS Comp Biol* 18(7). doi:10.1371/journal.pcbi.1010240
- Eisfeld*, Kraus*, Ronge, Jagst, **Brandenburg**, Narberhaus, 2021: **A LysR-type transcriptional regulator controls the expression of numerous small RNAs in Agrobacterium tumefaciens**, *Mol Biol* 116(7). doi:10.1111/mmi.14695
- Twittenhoff*, **Brandenburg***, Righetti*, Nuss, Mosig, Dersch, Narberhaus, 2020: **Lead-seq: transcriptome-wide structure probing in vivo using lead(II) ions**, *NAR* 48(12). doi:10.1093/nar/gkaa404

*shared first authorship