



Paula Sophie Seibold

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Title PhD Project: Stimulation of basidiomycete indoleethylamine metabolism by spatiotemporal light and temperature gradients

Main Research Interests

- Genetic and biochemical basis of microbial secondary metabolite biosynthesis
- Natural products, especially secondary metabolites of basidiomycetes
- Regulation of basidiomycete indoleethylamine biosynthesis genes

Methodological Experiences

- Bioinformatic analysis of basidiomycete genomes
- qPCR
- RNAseq
- Molecular cloning and heterologous expression

Curriculum Vitae

- Since 04/2021 **PhD student**
Pharmaceutical Microbiology
Friedrich Schiller University Jena
Cluster of Excellence "Balance of the Microverse"
Supervision: Prof. Dr. Dirk Hoffmeister,
Prof. Dr. Axel A. Brakhage
- 10/2020-03/2021 **Technician/ Trainee program**
Jena Bioscience GmbH
Product optimization and development



- 10/2018 – 09/2020 **Master of Science Biochemistry**
Friedrich Schiller University Jena
Master thesis: *Genetic and chemical investigation of laetiporic acid biosynthesis*
Pharmaceutical Microbiology
Supervision: Prof. Dr. Dirk Hoffmeister,
Prof. Dr. Christian Hertweck
- 10/2018 – 09/2019 **Research Assistant**
Max Planck Institute for Chemical Ecology Jena
Department of Biochemistry
- 05/2016 – 03/2018 **Student Assistant**
Max Planck Institute for Chemical Ecology Jena
Department of Molecular Ecology
- 10/2015 – 09/2018 **Bachelor of Science Biochemistry/ Molecular Biology**
Friedrich Schiller University Jena
Bachelor thesis: *Heterologous expression of type II polyketide synthase biosynthesis genes in Streptomyces*
Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute Jena
Supervision: Prof. Dr. Christian Hertweck,
Dr. Gerald Lackner

Scholarships

- 2019/2020 "**Deutschlandstipendium**" funded by Carl Zeiss Foundation
- 2016/2017 "**Deutschlandstipendium**" funded by Bayer Foundation

Publications

- Gressler, M.; Löhr, N.A.; Schäfer, T.; Lawrinowitz, S.; **Seibold, P.S.**; Hoffmeister, D. (2021) Mind the Mushroom: Natural Product Biosynthetic Genes and Enzymes of Basidiomycota. *Nat Prod Rep*.
- **Seibold, P.S.**; Lenz, C.; Gressler, M.; Hoffmeister, D. (2020) The Laetiporus polyketide synthase LpaA produces a series of antifungal polyenes. *J Antibiot* 73, 711–720.