CURRICULUM VITAE PROF. DR. Tilmann Weber

BIOGRAPHICAL SKETCH

Tilmann Weber is Professor for Natural Products Genome Mining and Associate Scientific Director at the Novo Nordisk Foundation Center for Biosustainability of the Technical University of Denmark. Here he leads the interdisciplinary research group "Natural Products Genome Mining". His main research interest is focused on deciphering the molecular pathways and engineering the biosynthesis of natural products by combining genetic, biochemical and bioinformatics methods. He is a pioneer in developing software for the automated genome mining (CLUSEAN, antiSMASH, antiSMASH-DB) and analysis of secondary metabolite biosynthetic pathways. His group was able to firstly elucidate the biosynthetic pathways of the elfamycin family of antibiotics and is deeply involved in developing CRISPR-based metabolic engineering tools for actinomycetes.

CURRENT AND PAST POSITIONS

since 1/2021	Associate Scientific Director, head of "Natural Product Genome Mining" group at the Novo Nordisk Foundation Center for Biosustainability of the Technical University of Denmark (DTU Biosustain)
since 03/2018	Professor for Natural Products Genome Mining at (DTU Biosustain)
11/2013 – 12/2020	Co-Principal Investigator of the section New Bioactive Compounds at DTU Biosustain
11/2013 – 2/2018	Senior Researcher at DTU Biosustain
2004 – 2013	Wissenschaftlicher Assistent (equivalent to Assistant Professor level) and Group Leader at the I Interfaculty Institute of Microbiology and Infection Medicine of the University Tübingen

EDUCATION

6/2012	Habilitation in Microbiology at the Faculty of Science of the University Tübingen; Titel of "Privatdozent" at University Tübingen until 2/2018
2004	Doctorate (Dr. rer. nat.) at the Institute of Microbiology of the University Tübingen, Dpt. Microbiology/Biotechnology with Prof. Dr. W. Wohlleben
1994 – 1999	Studies of Biology at Eberhard Karls University Tübingen, Germany (Diploma)

TEACHING AND PROFESSIONAL ACTIVITIES

PhD students mentored: 7 finished; 7 ongoing; 2 co-supervisor

Tilmann is co-organizer of several Genome Mining Workshops in Lille/F (2013, 2015) and at DTU (2018) and member of the scientific organization committee of various Copenhagen Bioscience Conferences.

Editorial activities: Tilmann is Associate Editor for Synthetic and Systems Biotechnology, and member of the Editorial Boards of Scientific Reports, and Metabolic Engineering.

ACADEMIC HONORS AND AWARDS

- 2020, Clarivate Highly Cited Researcher
- 2019, Corrit Fonden Akademiske Rejselegat
- 2019, Guest Professorship at the East China University of Science and Technology, Shanghai
- 2015, "CFB Best innovation Award" for Actinomycetes CRISPR patent
- 2013, "DECHEMA Price for Natural Product Research" (Dechema Nachwuchswissenschaftler Preis für Naturstoff-Forschung)

PRESTIGIOUS RESEARCH GRANTS (ACTIVE)

- NNF Challenge grant "Integration of Informatics and Metabolic Engineering for the discovery of Novel Antibiotics (iimena), 2017-2023, coordinator
- Member of the DNRF Center of Excellence: Center for Microbial Secondary Metabolites (CeMiSt), 2018-2023,

PUBLICATIONS

82 publications in international peer reviewed journals, 5 peer reviewed book chapters, several editorials , 4 popular science articles and 5 patent applications.

H-factor / Citations (Google Scholar, 20.1.2021): 38 / 10184

Google Scholar profile: https://scholar.google.com/citations?user=KuOZZSAAAAAJ&hl=en

Five selected publications:

1. Tong Y, et al. (2020) CRISPR-Cas9, CRISPRi and CRISPR-BEST-mediated genetic manipulation in streptomycetes. Nat Protoc. *15*, 2470-2502, DOI: 10.1038/s41596-020-0339-z.
2. Tong, Y., et al. (2019). Highly efficient DSB-free base editing for streptomycetes with CRISPR-BEST. Proc Natl Acad Sci U S A *116*, 20366-20375.
3. Blin, K., et al. (2019). antiSMASH 5.0: updates to the secondary metabolite genome mining pipeline. Nucleic Acids Res *47*, W81-W87.
4. Musiol-Kroll, E.M., et al. (2017). Polyketide Bioderivatization Using the Promiscuous Acyltransferase KirCII. ACS Synth Biol *6*, 421-427.
5. Jiang, X., et al. (2017). Dissemination of antibiotic resistance genes from antibiotic producers to pathogens. Nat Commun *8*, 15784.