

Personal Details

Valentin Waschulin

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University of Vienna, AUT

Academic positions

- 01/04/2024 – today **Postdoctoral Research Assistant at the University of Vienna**
I am investigating the impact of drought on the bacterial community of a grassland soil using an array of meta-omics techniques.
- 01/04/2022 – 31/03/2023 **Early Career Fellowship at the University of Warwick**
I won the competitively awarded Early Career Fellowship from the Warwick Institute of Advanced Studies. This allowed me to wrap up my PhD work and work on manuscripts.
- 01/04/2022 – 14/12/2022 **Research Assistant (PhD, part time), University of Warwick**
- 14/05/2018 – 31/03/2022 **Research Assistant (PhD), University of Warwick**

Education

- 14/05/2018 – 03/11/2022 **PhD at the University of Warwick – Marie Curie ITN CARTNET**
- Applied long-read metagenomics to identify secondary metabolite biosynthetic gene clusters (BGCs) in Antarctic soil.
 - Cloned BGCs into expression hosts and used metabolomics to evaluate compound production.
 - Developed a PCR screening method for regulatory genes in *Streptomyces*.
 - Isolated soil bacteria using microbiological techniques.
 - Authored and published peer-reviewed research papers and reports for funding bodies.
 - Presented research findings at national and international conferences.
 - Supervised and mentored undergraduate students and trained new lab members.
 - Secured internal and external funding.
 - Completed an industry secondment at NAICONs Srl, Italy.
 - Built an international network and gained transferable skills through the Innovative Training Network (ITN).
- 01/09/2014 – 13/10/2016 **MSc Biology – Biotechnology at University of Copenhagen, GPA 3.4/4**
- Spent a year in industry at Novozymes A/S, where I established the proof-of-concept for a novel enzymatic pulp bleaching technology
 - Authored and published a first-author paper

- 01/10/2013 – 31/01/2014 **Université Pierre et Marie Curie, Paris – ERASMUS semester**
- Collected first experiences with international mobility and improved my French
- 01/10/2011 – 11/08/2014 **BSc Biology at the University of Vienna, Specialization Microbiology and Genetics, GPA 3.5/4**
- Gained a strong foundation in microbiology and genetics.
 - Awarded a scholarship for special study achievements twice.
 - Conducted thesis research on strain development in *Trichoderma reesei* at the Vienna University of Technology.

Publications

Waschulin V, Borsetto C, Corre C, Wellington E. Design and validation of a PCR screen for γ -butyrolactone-like regulatory systems in *Streptomyces*. *Access Microbiology*, 2023 Sep;5(9):000661-v3

Terlouw, B et al. MIBiG 3.0: a community-driven effort to annotate experimentally validated biosynthetic gene clusters, *Nucleic Acids Research*, Volume 51, Issue D1, 6 January 2023, Pages D603–D610

Vind K, Maffioli S, Fernandez Ciruelos B, **Waschulin V**, Brunati C, Simone M, Sosio M, and Donadio S. N-Acetyl-Cysteinylated Streptophenazines from *Streptomyces*. *Journal of Natural Products* 2022 85 (5), 1239-1247

Waschulin V, Borsetto C, James R, Newsham KK, Donadio S, Corre C, Wellington E. Biosynthetic potential of uncultured Antarctic soil bacteria revealed through long-read metagenomic sequencing. *The ISME Journal*. 2021 Jul 12:1-1.

Waschulin V, Loureiro PE, Herold-Majumdar OM, Felby C, Lund H. Enzymatic delignification and hexenuronic acid removal in cellulosic papermaking pulp using a haloperoxidase. *Green Chemistry*. 2018;20(3):649-57.

Waschulin V, Specht L. Cellular agriculture: an extension of common production methods for food. The Good Food Institute. Technical report; 2018. (non-peer reviewed whitepaper)

Presentations and workshops held

2022	Talk	ISME conference, Lausanne
2022	Workshop	RESPHARM Consortium Nanopore Workshop, Chandigarh
2022	Talk	Microbiology Society Annual Conference, Belfast
2021	Talk	Molecular Microbial Ecology Group Meeting, Norwich
2021	Talk	Warwick SLS Postgraduate Symposium, online
2021	Talk	Chemistry and Biology of Natural Products XIII, online
2021	Talk	Warwick Chemical and Structural Biology Seminar series, online
2020	Flash talk	JIC Summer School for Applied Microbiology, online
2019	Talk	Warwick SLS Metagenomics and Proteomics workshop, Coventry
2019	Poster	Chemistry and Biology of Natural Products XIII, Coventry
2019	Poster	15th Symposium on Bacterial Genetics and Ecology, Lisbon
2019	Poster	CPH Biosciences Conference: Natural Products - Discovery, Biosynthesis and Application, Copenhagen

Awarded Research Funding

- 2025 Joint Genome Institute New Investigator Scheme (In-kind contribution through Sequencing of 184 samples to a maximum of 3 Tb)
- 2025 MSCA postdoctoral fellowship (€230,184.72)
- 2022 Warwick IAS Early Career Fellowship (£7,154.18)
- 2022 Warwick SLS Pump priming funding (£5091.36, with Prof. Elizabeth Wellington)
- 2022 Warwick Habitability GRP funding (£4240.80, with Prof. Elizabeth Wellington)
- 2022 Microbiology Society Conference Attendance Grant (€300)
- 2022 FEMS Meeting Attendance Grant (£360)

Research Skills

- Bioinformatics: Illumina & nanopore read processing, assembly, metagenomic binning & quality control, read mapping, taxonomic assignment, handling of different file types, qiime2, bash, biopython, use of high-performance compute nodes, basic tools (BLAST+, HMMER, diamond, clustalo, etc)
- R: Data wrangling and visualisation with tidyverse (dplyr, ggplot2, readr, stringr, tibble), functions, statistical tests
- Microbiology: Soil bacteria isolation, antibiotic assays (disc diffusion & agar plugs), growth curves, transformation & conjugation
- Molecular biology: Vector design & construction, cloning, Gibson assembly, DNA & RNA extraction, PCR optimisation, metagenomic libraries, nanopore & illumina sequencing
- Analytical chemistry: Extraction of specialised metabolites, LC-MS sample prep & basic data analysis

Transferable Skills

- Oral communication: Presentation of methods and findings to different audiences at conferences, network meetings, seminars and lab meetings
- Written communication: Writing of reports and publications for expert and non-expert audiences, writing funding applications
- Teaching & Supervision: Training and supervision in the lab, setting tasks, assessing progress & understanding, mentoring, grading of reports, holding workshops
- Project management: Working towards multiple deadlines, setting realistic goals, recognising opportunities, flexibility, independence

Other activities

- 2023 – 2024 Took time off for travelling, relocation and family
- 2020 - 2022 Ad-hoc reviewer for *Microbiome* and *ACS Chemical Biology*
- 2019 – 2020 Co-supervised the silver award winning Warwick iGEM team
- 2018 – 2019 Volunteered at the LWS Night Shelter, Leamington Spa

2017 – 2018	Volunteered with the Good Food Institute to author a whitepaper on cellular agriculture
2017	Career break to work and travel
2015 – 2016	Volunteered as Incoming Exchange responsible at AIESEC Denmark

Languages

German	Native proficiency	Danish	Limited working proficiency
English	Near-native proficiency	French	Limited working proficiency