

CAROLINA LOBATO

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Graz, Steiermark, Austria

EXPERIENCE

- **Institute of Environmental Biotechnology – Graz University of Technology**  Jan 2021 - Dec 2024
University Assistant Graz, Austria
 - **Supervision:** Univ.-Prof. Dipl.-Biol. Dr.rer.nat. Gabriele Berg
- **Institute of Environmental Biotechnology – Graz University of Technology**  Apr - Dec 2020
Research Assistant – HydroBioBis Graz, Austria
 - **Supervision:** Univ.-Prof. Dipl.-Biol. Dr.rer.nat. Gabriele Berg & Dr. Tomislav Cernava
- **Plant Science and Crop Production Group – ISA, University of Lisbon**  Apr 2018 - Nov 2019
Research Fellow – HybridOak Lisboa, Portugal
 - **Supervision:** Prof. Dr. Leonor Morais-Cecílio
- **Forest Ecology Group – ISA, University of Lisbon**  May 2017 - Mar 2018
Research Fellow – BIOTECH II Lisboa, Portugal
 - **Supervision:** Prof. Dr. José Carlos Rodrigues & Dr. Ana Alves
- **CERNAS – Polytechnic University of Coimbra**  Sep 2013 - Jun 2014
Graduate Research Intern Coimbra, Portugal
 - **Supervision:** Dr. Sandra Gamboa

EDUCATION

- **Institute of Environmental Biotechnology – Graz University of Technology**  2021 - 2025
PhD. defended with distinction, Molecular Biosciences and Biotechnology Graz, Austria
 - **Supervision:** Univ.-Prof. Dipl.-Biol. Dr.rer.nat. Gabriele Berg
- **Institute of Biomedicine – University of Aveiro**  2014 - 2016
MSc., Molecular Biomedicine Aveiro, Portugal
 - **Supervision:** Prof. Dr. Gabriela Moura
- **Dept. of Infectious Diseases and Microbiology – Univ. of Veterinary Sciences Brno**  May - Sep 2013
Internship - LLLP-Erasmus Brno, Czechia
 - **Supervision:** Prof. MVDr. Vladimír Celer, Ph.D.
- **Higher School of Agriculture – Polytechnic University of Coimbra**  2009 - 2013
BSc., Biotechnology Coimbra, Portugal

TEACHING EXPERIENCE

- **Environmental Microbiology (MOL.963UF)** 2023-2024
Guest Lecture on The Seed Microbiome Institute of Environmental Biotechnology
- **Laboratory Course Microbiome Analysis (MOL.972UF)** 2023-2024
Teaching Assistant Institute of Environmental Biotechnology
- **Laboratory Course Environmental Biotechnology (MOL.935UF)** 2023-2024
Teaching Assistant Institute of Environmental Biotechnology
- **Biodiversity and Applied Microbiology (MOL.731UF)** 2021-2024
Teaching Assistant Institute of Environmental Biotechnology
- **Biodiversity and Applied Microbiology (PLA.221UF)** 2021-2024
Teaching Assistant Institute of Environmental Biotechnology
- **Laboratory Course Biotechnology (CHE.177UF)** 2021-2024
Teaching Assistant Institute of Environmental Biotechnology
- **Environmental Microbiology (MOL.963UF)** 2021-2022
Teaching Assistant Institute of Environmental Biotechnology

• Laboratory Course Microbiology (MOL.209UF) Teaching Assistant	2022 Institute of Environmental Biotechnology
• Laboratory Course Bioinformatics (MOL.923UF) Teaching Assistant	2021 Institute of Environmental Biotechnology
• Genetic Engineering Undergraduate Preceptor	2013 Higher School of Agriculture

RESEARCH MENTORSHIP

• Daniel Shelegy Bachelor Student – Institute of Environmental Biotechnology	2024
• Matevž Zlatnar Project Lab Student – Institute of Environmental Biotechnology	2022
• Daniel Habich Master Student – Institute of Environmental Biotechnology	2021 - 2023
• Daniela Dreisiebner Master Student – Institute of Environmental Biotechnology	2021 - 2023
• Anna Mitterrutzner Project Lab Student – Institute of Environmental Biotechnology	2021
• Magdalena Egger Master Student – Institute of Environmental Biotechnology	2021
• Zahra Azizi Bachelor Student – Institute of Environmental Biotechnology	2021
• Bettina Semler Master Student – Institute of Environmental Biotechnology	2020


RESEARCH OUTPUT

J=PEER-REVIEWED PUBLICATION, S=IN SUBMISSION, O=ORAL PRESENTATION, P=POSTER PRESENTATION, T=THESIS

[S]	Chen X., Olimi E., Lobato C. , Berg G. & Cernava T., "The Tomato Seed Microbiome is Mainly Shaped by Host Genotype and Production Site" <i>New Phytologist</i> , 2025
[S]	Olimi E., Wuggenig R., Lobato C. , Bickel S., Kusstatscher P., Wicaksono W. A., Battisti A., Coyne D., Adriko J., Cernava T. & Berg G., "Linking the Microbiome and Metabolome of <i>Mondia whitei</i> , a Medicinal Climber Plant" <i>Environmental Microbiology</i> , 2025
[S]	Lobato C. , Abdelfattah A., Berg G. & Cernava T., "Defining the Cultured and Uncultured Bacterial Fractions in <i>Cannabis</i> Seeds" <i>Environmental Microbiome</i> , 2025
[T]	Lobato C. , " The Microbiome of Cannabis Seeds: Insights into Microbiome-Driven Sustainability " TU Graz diglib, 2025
[J]	Lobato C. , Freitas J.M., Habich D., Kögl B., Berg G. & Cernava T., " Wild Again: Recovery of a Beneficial Cannabis Seed Endophyte from Low Domestication Genotypes " <i>Microbiome</i> , 2024
[O]	Lobato C. , Freitas J.M., Habich D., Kögl B., Berg G. & Cernava T., "Symbiotic Futures: Leveraging Seed Microbiomes for Sustainable <i>Cannabis</i> Cultivation", <i>LANDSCAPE Berlin</i> , 2024
[P]	Lobato C. , Freitas J.M., Habich D., Kögl B., Berg G. & Cernava T., "Symbiotic Futures: Leveraging Seed Microbiomes for Sustainable <i>Cannabis</i> Cultivation", 5th Plant Microbiome Symposium Amsterdam (PMS), 2024
[O]	Lobato C. , Freitas J.M., Habich D., Berg G. & Cernava T., "Healthy <i>Cannabis</i> Seeds Harness a Geno- and Chemotype Specific Microbial Signature" <i>Slovenian Microbiome Network Symposium (SMNS)</i> 2023
[O]	Lobato C. , Freitas J.M., Habich D., Berg G. & Cernava T., "Exploring the microbiome of <i>Cannabis</i> Seeds Through Domestication and Breeding Stages" 2nd Young AMICI Symposium, 2023
[P]	Lobato C. , Freitas J.M., Habich D., Berg G. & Cernava T., "Uncovering <i>Cannabis</i> Seed Endophytic Diversity and Composition Across Varieties" 16th Symposium on Bacterial Genetics and Ecology (BAGECO), 2023
[J]	Abdelfattah A., Tack A., Lobato C. , Wassermann B. & Berg G., " From Seed to Seed: The Role of Microbial Inheritance in the Assembly of the Plant Microbiome " <i>TIM</i> , 2023
[P]	Lobato C. , Cernava T. & Berg G., "Exploring the <i>Cannabis</i> Seed Microbiome" 10th ISS Congress & 3rd International Conference on Holobionts, 2022

- [P] Lobato C., Cernava T. & Berg G., "Exploring the *Cannabis* Seed Microbiome" miCROPe International Symposium 2022
- [P] Lobato C., Cuadros-Patiño K., Cernava T. & Berg G., "Characterization of the *Cannabis* Seed Microbiome for the Development of Improved Cultivation Strategies" 8th Theodor Escherich Symposium on Medical Microbiome Research (TES) & 4th AMICI Symposium, 2021
- [O] Lobato C., Cuadros-Patiño K., Cernava T. & Berg G., "[Characterization of the *Cannabis* Seed Microbiome for the Development of Improved Cultivation Strategies](#)" Virtual Cannabis Research Conference, 2021
- [J] Inácio V., Lobato C., Graça J. & Morais-Cecílio L., "[Cork Cells in Cork Oak Periderms Undergo Programmed Cell Death and Proanthocyanidin Deposition](#)" Tree Physiology, 2021
- [P] Inácio V., Lobato C., Graça J. & Morais-Cecílio L., "How cork cells differentiate: The Role of Programmed Cell Death and Proanthocyanidin Deposition in Cork Oak Periderm" PADiBa, 2019
- [T] Lobato C., "[A Study of Alternative Initiation Codons in *Candida cylindracea*](#)" RIA, 2016
- [P] Gamboa S., Lobato C., Oliveira H., Oom M.M. & Bahcevandziev K., "Flow Cytometry for the Assessment of Equine Sperm Chromatin" GTIE, 2015

SCIENCE OUTREACH

- **TU Graz Lange Nacht der Forschung 2024** May 2024
Organization of the UBT stand at the Long Night of Research 2024
- **10th Theodor Escherich Symposium on Microbiome Research** Jan 2024
Session chair
- **TU Graz Science Day 2023: New Worlds in Production** Sep 2023
Science communication seminar: Healthy seed microbiome - healthy Cannabis plants
- **9th Theodor Escherich Symposium on Microbiome Research** Nov 2022
Session chair
- **Seed Microbiome Working Group (SMWG)** 2022 - ongoing
Co-founder and organizing member 
- **PEC 282 - Growth, Cellular Renovation, and Reproduction: From Theory to Practice** 2014
Engaging high school students through lectures and practical activities on recombinant DNA in bacteria, and in animal fertilization

PROFESSIONAL DEVELOPMENT & SERVICE

- **Peer reviewer:** Environmental Microbiome Journal
- **[Reproducible Research with R and quarto: Workflows for data, projects, and publications](#)** Sep 2024
- **Teaching Academy:** University Didactics 1 & 2 (Basic Module) Jul - Sep 2022
- **[Bacterial Metagenomics: from experimental design to data analysis](#)** May 2021
- **Code Academy:** [Learn the Command Line Course](#) Feb 2021
- **[Metagenomics applied to surveillance of pathogens and antimicrobial resistance](#)** Feb 2020
- **[Programming Initiation Course for Biologists](#)** Jan 2019
- **[Theoretical-practical course in Cytogenetics and Genomics in Diagnosis and Research](#)** Sep 2018

ADDITIONAL INFORMATION

Languages: Portuguese (Native), English (Proficient), Spanish (Intermediate), German (A2) **Programming Languages:** R (Experienced), Bash - Unix Shell (Experienced), Python (Beginner) **Driver's license:** B1 **Hobbies:** Scientific illustration, Basketball