

LUIS MIGUEL RODRIGUEZ ROJAS

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PUBLICATION METRICS

Journal Articles: 70 Book Chapters: 4 Citations: 21,150 H-Index: 38

EDUCATION

2011-2016 PhD, Bioinformatics (minor: Biomedical Engineering)

School of Biological Sciences, Georgia Institute of Technology, USA

2010-2011 MSc, Applied Informatics (emphasis: Bioinformatics)

Department of Informatics, University of Montpellier, France

2009-2011 MSc, Biological Sciences (line: Microbiology)

Department of Biological Sciences, Los Andes University, Colombia

2005-2009 BSc, Biology (dual emphasis: Conservation Ecology and Molecular Plant Pathology)

Department of Biology, National University of Colombia, Colombia

ACADEMIC POSITIONS

2021-Present Assistant Professor

Department of Microbiology and Digital Science Center, University of Innsbruck, Austria

2020-2020 Research Scientist

Department of Microbiology and Digital Science Center, University of Innsbruck, Austria

2018-2020 Research Engineer I

School of Civil and Environmental Engineering, Georgia Institute of Technology, USA

2017-2018 Postdoctoral Fellow

School of Civil and Environmental Engineering, Georgia Institute of Technology, USA

TEACHING ACTIVITIES (SINCE 2020)

2022-2024 Special Topics in Ethics and Digitalization, University of Innsbruck, Austria

2021-2025 Introduction to Programming in R, University of Innsbruck, Austria

2021-2025 Molecular Biotechnology, University of Innsbruck, Austria
2020-2024 Molecular Data Analysis, University of Innsbruck, Austria

2023 Invited lecturer - EMBO Microbial metagenomics: a 360° approach, European Molecular

Biology Laboratory (EMBL), Heidelberg, Germany

2022 Invited lecturer - Workshop on Genomic Techniques, National Institute for Research on

Biological Resources Alexander von Humboldt, Bogotá, Colombia

2021 Organizer and lecturer - Bacterial Genomics Course, North-South-North Network on

Xanthomonas, Colombia, France, Austria, and USA (virtual)

2021 Lecturer - Metagenomics Course, Universidad de las Islas Baleares, Spain (virtual)

INVITED TALKS (SELECTION, SINCE 2022)

The fundamental role of sampling coverage in the study of environmental genomics, Annual Meeting of the Chinese Association of Microbial Ecology (CAME), Qingdao, China

Three genomic adaptations in aquatic prokaryotes: Towards a census-based microbial ecology with genome-resolved metagenomes. Versions delivered at: Institute of Research for Development, France; University of Aalborg, Denmark; Shanghai Jiao Tong University, China; East China Normal University, China; and King Abdullah University of Science and Technology, Saudi Arabia

2023 Studying genomic adaptations under the light of microbial ecology, 10th Conference

Mikrobiokosmos, Larissa, Greece

- 2023 A census-based microbial ecology with genome-resolved metagenomics, Department of Microbiology and Molecular Medicine Conference, University of Geneva, Geneva, Switzerland
- **2023** The SeqCode Registry: A semi-automated platform for the proposal and exploration of names of prokaryotes described from sequence data, Congress of European Microbiologists FEMS 2024, Hamburg, Germany
- **2023** Genome-based classification of Archaea and Bacteria on the basis of multiple reference taxonomies with MiGA, 1st Intl. Symposium on Soil Sustainability and Environmental Health, Yangling, China
- 2023 Quantifying genetic variation at the edge of metagenomic resolution to characterize in situ population dynamics, The Local Pangenome 2034, Alicante, Spain
- The SeqCode Registry: A semi-automated platform for the proposal and exploration of names of prokaryotes described from sequence data, Bergey's International Society for Microbial Systematics (BISMiS) Live, Online
- 2022 Efficiently searching and taxonomic identification of the genomic prokaryotic diversity with the Microbial Genomes Atlas (MiGA 1.0), FEMS Conference on Microbiology, Belgrade, Serbia
- Invited panel member Roundtable: The future of microbial taxonomy under the SeqCode, 18th International Symposium on Microbial Ecology (ISME18), Lausanne, Switzerland
- Case study: Hydrocarbon degradation under the light of microbial ecology in an oil spill and Microbial ecology in an oil spill: Impacts, succession, and evaluation of the specialization-disturbance hypothesis, Guidelines for the Evaluation of Oil Spill Impacts using Genomic Techniques, The Alexander von Humboldt National Institute for Research on Biological Resources, Bogotá, Colombia
- What's in a name? Prokaryotic nomenclature meets genomics in the SeqCode Registry, 5th Symposium of the Austrian Microbiome Initiative (AMICI), Vienna, Austria

FELLOWSHIPS AND AWARDS

- **2023** Elected chair of the Registry and Nomenclature working group, SeqCode
- 2017 Best PhD Thesis Sigma Xi Award, Georgia Institute of Technology, USA
- **2016** ISME Travel Award, ISME 16, International Society for Microbial Ecology
- 2015 School of Biology Graduate Excellence Award, Georgia Institute of Technology, USA
- **2010** Fellowship granted by the Languedoc Region to outstanding international students, France
- **2009** Scientific Mission to the Institute of Research for Development (IRD), Evaluation-Orientation of Scientific Cooperation (ECOS) program, France
- **2004** Department of Biology "Matrícula de Honor" award, National University of Colombia

ACADEMIC SUPERVISION (GRADUATE LEVEL)

- **2025-Present** Co-advisor, Juan Valero Tobar, PhD in Biodiversity and Evolutionary Biology, University of Valencia, Spain (Main advisor: Maria Dzunkova).
- **2024-Present** Advisor: Vadym Sokhan, MSc in Microbiology, University of Innsbruck, Austria.
- **2024-Present** Co-advisor, Vaishali Bhardwaj, MSc in Molecular Biotechnology, Anhalt University of Applied Sciences, Germany (Main advisor: Dirk Benndorf).
- **2023-Present** Advisor, Nathan Ernster, PhD in Microbiology, University of Innsbruck, Austria
- 2023 Advisor, Caterina Pansoni, MSc Microbiology, University of Innsbruck, Austria. Thesis: Effect of glycerol addition on the anaerobic digestion process.
- 2022-2023 Advisor, Alexander Paoli, MSc Microbiology, University of Innsbruck, Austria. Thesis: Characterization of biogeographic ranges of saltern prokaryotes through cultivation-independent genomics.
- **2022-2024** Co-advisor, Edoardo Mandolini, PhD in Microbiology, University of Innsbruck, Austria (Main advisor: Ursula Peintner). Thesis: Microbial interactions in snow-covered habitats.
- **2022-2024** Advisor: Beatriz Barroso Gstrein, MSc Data Science, University of Innsbruck, Austria. Thesis: Standard-free quantification of compounds with mass spectrometry.
- 2022-2024 Advisor: Dorothea Schneider, MSc Data Science, University of Innsbruck, Austria. Thesis: Prediction of verbalin amount in the medicinal plant *Verbena officinalis* by machine learning based on NIR data.