Rita H.R. Branco

MSc in Environmental Biotechnology

INFO

Licence B

rita.branco@wetsus.nl

rita-branco

LANGUAGES

- Portuguese (mother tongue)
- English (level C1)
- Dutch (level B1)
- Spanish (level B2, self-assessment)

ADDITIONAL ACTIVITIES

Wetsus (Leeuwarden, NL)

- Inclusion and diversity work group
- 'HR excellence in research' work group
- PhD representative
- Wetsus' magazine (editor)
- Personeelsvereniging
- Lunch presentations (organizer)
- Honours and Master's Class programs (supervisor)

I performed research in polyhydroxyalkanoate and bioethanol production and micropollutants biodegradation, gaining hands-on experience on pure yeast culture and mixed microbial culture (activated sludge, soil, and aquifer/groundwater) work under aerobic and anaerobic conditions.

Experience with:

- bioreactor operation - batch, sequential batch, and continuous (soil/sediment columns)
- analytical techniques - HPLC, VSS/TSS, COD and UV–VIS spectroscopy
- molecular biology techniques – DNA extraction and quantification, qPCR and gel electrophoresis
- informatic tools - MS Office (Word, Excel, and PowerPoint) and R

WORK EXPERIENCE

Feb 2019 – Sep 2024 | Researcher

Wetsus, the Netherlands

Main project: Dissolved organic matter dosing to enhance *in situ* micropollutants biodegradation in drinking water aquifers

Tasks: experiment design and execution, data treatment and visualization, report/article writing, results presentation, literature revision, student supervision

ACADEMIC QUALIFICATIONS

Feb 2019 – Present | PhD candidate in Environmental Technology

Wageningen University and Research, the Netherlands

Research project: Dissolved organic matter dosing to enhance *in situ* micropollutants biodegradation in drinking water aquifers

2016 – 2018 | MSc Degree in Industrial and Environmental Biotechnology

University of Aveiro, Portugal

MSc Thesis: 2nd Generation Bioethanol Production in terms of Circular Economy

2013 – 2016 | BSc Degree in Biotechnology

University of Aveiro, Portugal

BSc Project: Bioplastics production through eco-engineering of mixed microbial cultures

ADDITIONAL ACTIVITIES

Agora Aveiro (Aveiro, PT)

- Volunteer for projects in the areas of sustainable development, social inclusion, urban intervention, and culture, art and creativity

University of Aveiro (Aveiro, PT)

- Tutoring program

PUBLICATIONS

Effect of dissolved organic carbon on micropollutant biodegradation by aquifer and soil microbial communities

Rita H.R. Branco, Roel J.W. Meulepas, Kateřina Kadlecová, Marta F.S. Cardoso, Huub H.M. Rijnaarts, Nora B. Sutton

in Chemosphere *DOI: 10.1016/j.chemosphere.2023.140644*

Influence of redox condition and inoculum on micropollutant biodegradation by soil and activated sludge communities

Rita H.R. Branco, Roel J.W. Meulepas, H. Pieter J. van Veelen, Huub H.M. Rijnaarts, Nora B. Sutton

in Sci. Total Environ. *DOI: 10.1016/j.scitotenv.2023.165233*

Ethanol Production from Hydrolyzed Kraft Pulp by Mono- and Co-Cultures of Yeasts: The Challenge of C6 and C5 Sugars Consumption

Rita H. R. Branco, Mariana S. T. Amândio, Luísa S. Serafim, Ana M.R.B. Xavier

in Energies *DOI: 10.3390/en13030744*

Second Generation Bioethanol Production: On the Use of Pulp and Paper Industry Wastes as Feedstock

Rita H. R. Branco, Luísa S. Serafim, Ana M.R.B. Xavier

in Fermentation *DOI: 10.3390/fermentation5010004*

COMMUNICATIONS

European Water Technology Week 2022

Leeuwarden, the Netherlands

Oral presentation: Biodegradation of leachable micropollutants – Exploring the potential of soil and aquifer microbiomes

12th Micropol & Ecohazard Conference (2022)

Santiago de Compostela, Spain

Oral presentation: The effect of dissolved organic matter biodegradability on the degradation of organic micropollutants by different microbial cultures

Amsterdam International Water Week 2021

Amsterdam, Netherlands

Oral presentation: Effect of different types of dissolved organic matter and redox conditions on micropollutant biodegradation by aquifer microbial community

Falling Walls Lab Marie Skłodowska-Curie Actions – European Research and Innovation Days 2019

Brussels, Belgium

Pitch presentation: Breaking the wall of groundwater pollution

Award: 2nd Place Falling Walls Lab MSCA