

Research Group of Environmental Microbiology and Biotechnology

BME

BUDAPEST UNIVERSITY OF TECHNOLOGY
AND ECONOMICS

II. COMPETENCE FAIR

Group leaders:

Dr. Mónika Molnár

Dr. Viktória Feigl

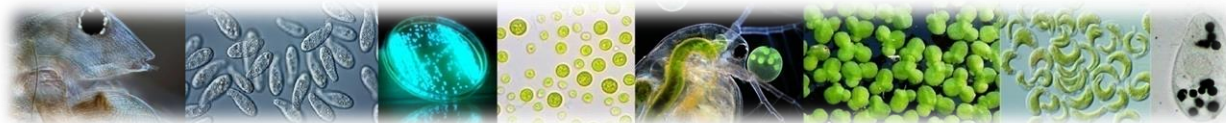


II. **BME** Competence Fair
BME Q BUILDING
9 June 2023



BME University of Technology
and Economics

Faculty of Chemical Technology and Biotechnology
Department of Applied Biotechnology and Food Science
**Research Group of Environmental Microbiology and
Biotechnology**



• **Research interests:**

- Environmental risk assessment, characterisation of chemicals / contaminated sites
- Environmental toxicology, environmental microbiology
 - E.g. environmental toxicology of nanomaterials, ecotoxicology in the industry, microbial *quorum sensing*
- Soil remediation/amelioration technology development
 - E.g. soil remediation/amelioration by wastes and waste-derived products (e.g. biochars, bauxite residues, fly ashes)
- Environmental engineering database <https://enfo.hu/en>



Team: Dr. Mónika Molnár, Dr. Viktória Feigl, Dr. Ildikó Fekete-Kertész, Zsófia Berkl, Emese Vaszita, Mária Tolner, Zsuzsanna Janek
P.h.D. students: Imre Németh, Rita Márton, Szabina Molnár

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- **Previous experience:**

- H2020 **ELECTRA** Electricity driven Low Energy and Chemical input Technology foR Accelerated bioremediation, 2019–2022, tasks: ecotoxicity testing, ERA, technology application guidelines
- H2020 **SCALE** Production of Scandium compounds and Scandium Aluminum alloys from European metallurgical by-products, 2014–2020, tasks: ecotoxicity testing, ERA
- EU life, other international (e.g. Norway, Switzerland, France) and national projects



- **New projects:**

- EJP SOIL International Call **AGROCOMPOSIT** Biochar-compost composites for supporting site-specific soil agro-ecosystem functions and climate change mitigation, 2023–2026
- HORIZON MSCA Staff Exchange **CLEANWATER** Multifunctional sustainable adsorbents for water treatment assisted with plasma technologies and for health protection from xenobiotics, 2023–2027

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- **Participation in projects:** technology development, environmental monitoring, ecotoxicology, risk assessment, dissemination
- **Horizon Europe interests (examples):**
 - HORIZON-MISS-2022-SOIL-01-02 Improving food systems sustainability and soil health with food processing residues
 - HORIZON-MISS-2023-SOIL-01-04 Innovations to prevent and combat desertification
 - HORIZON-MISS-2023-SOIL-01-05 Soil-friendly practices in horticulture, including alternative growing media
 - HORIZON-JU-CBE-2023-IA-02 Production of safe, sustainable, and efficient bio-based fertilisers to improve soil health and quality
 - HORIZON-MISS-2023-OCEAN-01-02 Danube river basin lighthouse – Demonstration of effective and sustainable management of sediments in the Danube river-Black sea system
 - Other interests: soil and water treatment, environmental biotechnologies, ecotoxicity assessment of chemicals



Thank You for your attention!

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