

Novinky v biomedicínském výzkumu / Biomedical Research News

Přednášky předních světových odborníků / Lectures of international experts in biomedicine

Středa 4. června 2025 / Tuesday June 4, 2025

Přednášková síň Coriových / Cori Lecture Hall, 1. LF UK

U Nemocnice 5, Praha 2

13,00 – 14,00 *Two Novel Hafnia strains from Common Carp (Cyprinus Carpio) as Potential Probiotics with Biodegradation Capabilities of Microplastics*

(12,45 Registration for students)

The lecture would focus on the discovery and characterization of new strains of bacteria, particularly probiotic varieties, as well as the identification of new genes with various roles, are essential for achieving beneficial effects on human health. Ongoing environmental pollution and the accumulation of microplastics in aquatic ecosystems create conditions that favour the growth of bacteria capable of degrading this material. In the presented study, *Hafnia alvei* UUNT_MP41 and *Hafnia paralvei* UUNT_MP29, species rarely isolated from the gastrointestinal tract (GIT) of *Cyprinus carpio*, were assessed for their probiotic activity, antibacterial activity and their capability of biodegrading microplastics.

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She earned PhD in Life Sciences at the School of Science and Technologies for Health Products, in the Department of Life Sciences at the University of Modena and Reggio Emilia, Modena, Italy, She is the Head of the Laboratory for Biological Treatment of Water at the Faculty of Ecology and Environmental Protection at the University Union Nikola Tesla in Belgrade. Her research interests include prebiotics and probiotics, with a focus on isolating bacterial species from various environments and studies of their significance for human health. Currently, she is studying the impact of microplastics from the gastrointestinal tract on probiotic cultures and how they influence the gastrointestinal tract.