

přednáška
Izabela Poprawa, Ph.D.

The secrets of tardigrades



17. 9. 2025
15:30 - 17:00



venkovní amfiteátr UJEP

v případě nepřízně počasí aula CPTO 1.04

outdoor amphitheater UJEP

in case of inclement weather, CPTO auditorium 1.04

Tardigrades, commonly known as water bears, have captured scientific and public interest due to their extraordinary ability to survive extreme environmental conditions, including drought, intense radiation, extreme temperatures, high levels of toxic compounds, extreme pressure, and even the vacuum of space. Their remarkable survival mechanisms hold immense potential for applications in biotechnology and medicine, however, they make them also a key model species in astrobiology research.

In this lecture, Dr. Izabela Poprawa will explore the biology of these fascinating creatures, highlighting their role in space exploration, including the Tardigrade Space Travel and the Yeast TardigradeGene project, conducted as part of "Ignis," Poland's first technological and scientific mission to the International Space Station.



Dr. Izabela Poprawa, is a professor at the Institute of Biology, Biotechnology, and Environmental Protection at the Faculty of Natural Sciences, University of Silesia in Katowice. She specialises in histology, developmental biology, and cell biology. Her research interests focus on tardigrades (Tardigrada), their morphology, ultrastructure, gametogenesis, cryptobiosis, and the impact of various environmental stressors on their biology. As part of „Ignis”, she is conducting research in collaboration with scientists from the University of Szczecin and Adam Mickiewicz University in Poznań to determine whether tardigrade proteins can help other organisms survive microgravity and radiation. Her scientific achievements include numerous publications, conference presentations, and active collaboration with national and international research centres.

***Přednáška proběhně v angličtině.**