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VABILO NA PREDAVANJE  
V OKVIRU DOKTORSKEGA ŠTUDIJA  
KEMIJSKE ZNANOSTI

**Ondrej Adamovsky, Ph.D.**

RECETOX  
(Research Centre for Toxic Compounds in the Environment)  
Masaryk University

z naslovom:

**Cyanobacteria as emerging world problem**

**v sredo, 25. 11. 2020 ob 15. uri,  
preko spletnega orodja Zoom**

<https://us04web.zoom.us/j/71861766428?pwd=YXpPLzA2Qmo1MVB6djZscEFHakb5UT09>

(Meeting ID: 718 6176 6428, Passcode: 9n2ZCF)

*Vljudno vabljeni!*

**Abstract:**

Cyanobacteria are microscopic organisms that are natural inhabitants of diverse environments including fresh, brackish, and marine waters, and the illuminated surfaces of rocks and soils. Due to an increased load of nutrients (eutrophication) and increased temperature, cyanobacteria create massive blooms that produce toxic substances in large quantities. Cyanobacterial toxic blooms are predicted to intensify in frequency and duration. The US Environmental Protection Agency (US EPA) and World Health Organization (WHO) consider cyanobacterial blooms and cyanobacterial toxins as top priority contaminants and emerging problem worldwide. Cyanobacterial bloom produce large spectrum of chemically and toxicologically different toxins that were found to be hepatotoxic, neurotoxic, genotoxic, nephrotoxic and immunotoxic. However, cyanobacterial toxins were studied for decades; only selected cyanotoxins were investigated for their toxicity and ability to accumulate/harm aquatic biota in detail. Additionally, episodes of human poisonings have been recorded after the exposure to contaminated wates, but the effects on human heath remains a critical, largely unexplored issue.

The presentation will introduce cyanobacteria as emerging world problem and present the current knowledge deals with the occurrence and toxicity of cyanobacteria. The most abundant and frequently found cyanotoxins will be described in detail and their mode of action explained. Further, the presentation will highlight the ability of cyanobacterial toxins accumulate in aquatic biota and thus represent potential health risk to humans. The examples of mitigation strategies will be discussed.