Searching for a Ph.D. student in molecular ecotoxicology University of South Bohemia & Czech Academy of Sciences



## Hunting down the Eagle Killer: Investigations into the Cyanotoxin Causing Avian Vacuolar Myelinopathy

Avian Vacuolar Myelinopathy (AVM) is a fatal neurological disease of birds. Its alarming spread in USA during the last 25 years has raised concerns about avian populations, including the iconic bird of prey, the **bald eagle**. All evidence points at AVM being caused by a **novel cyanobacterial toxin** that is produced by cyanobacteria of the novel species Aetokthonos hydrillicola, growing epiphytic on aquatic plants and travelling up the food chain, finally causing the typical brain lesions observed in AVM affected birds.

The main task of the PhD student is to elucidate the biosynthesis of the new toxin by analysis of the candidate gene cluster using:

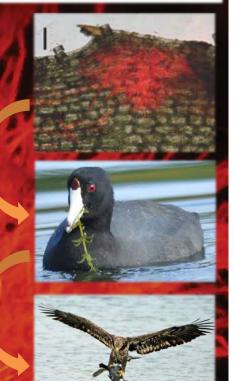
- · whole genome sequencing
- gene manipulation and heterologous expression
- in vitro enzymatic essays

## What we offer:

- a friendly group of young scientists
- participation in a funded international project (2019-2021)
- wide array of genomic and analytical methods
- collaboration with German and American partners
- paid internship in Germany (structural biology, MALDI imaging)
- 50% job at the Biology Centre CAS in addition to your stipend
- Good publication perspective







## What we expect:

- at least basic training in molecular biology
- (skills in synthetic biology welcome)
- ability to communicate in English
- motivation for reasonable everyday work and collaboration with other team mebers
- ability to work independly and participate in publication and project proposals

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To apply, send your proffesional CV and recommendation letter by your former supervisor