BIOTOXDoc

The doctoral training programme to develop novel control, mitigation and risk assessment methods for biotoxins

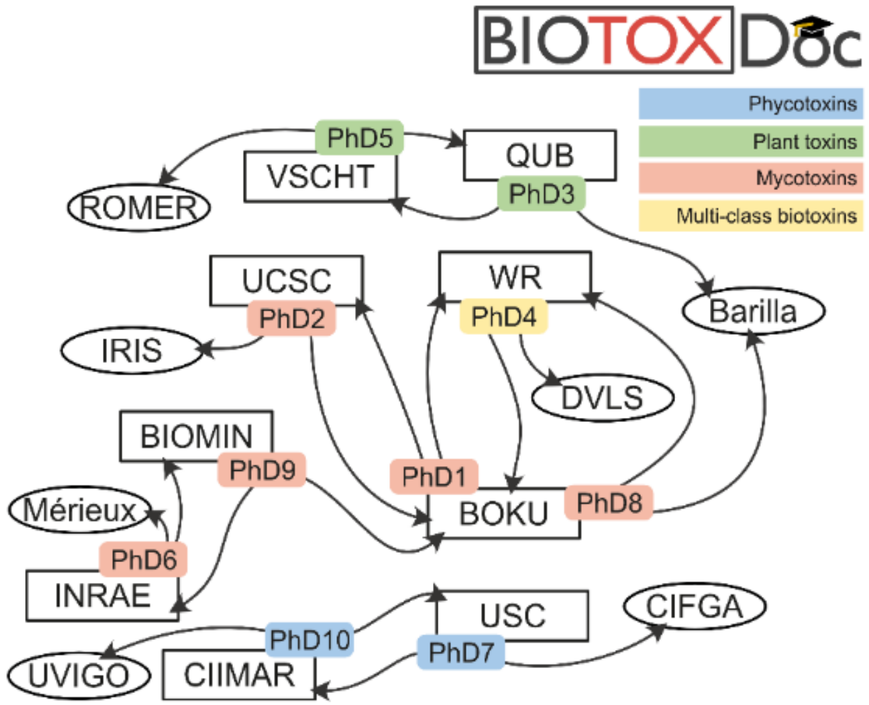
Franz Berthiller
Department of Agricultural Sciences
BOKU University, Austria



MSCA European Doctoral Network on Biotoxins

Co-funded by the European Union

2023-2027, 10 doctoral candidates, 2.7 M€ funding



- Fungal distribution
- Mycotoxin prediction
- Spectroscopic assays
- (Trans)portable MS
- Plant alkaloids
- Mycotoxin interaction
- Shellfish toxin interaction
- Modified mycotoxins
- Aflatoxin degradation
- Depuration



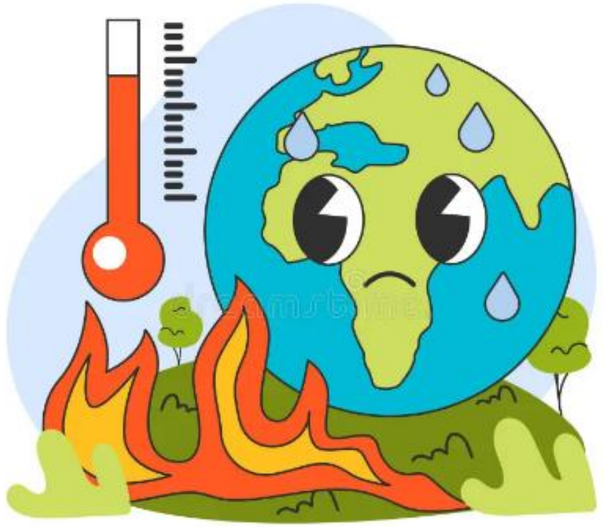
BOKU

Safe food in a world of changing climate:

The doctoral training programme to develop novel control, mitigation and risk assessment methods for biotoxins

BIOTOX Doc

There is a massive and urgent need to ensure **security and safety of the food supply** of the **growing world population**. The ongoing war in Ukraine as well as the energy crisis emphasized this even further. However, agriculture and food industries continue to be vulnerable to problems of **contamination with biotoxins** produced by plants, algae and particularly by fungi. **Global warming and extreme weather** events make the occurrence of these toxic metabolites even less predictable.



CLIMATE CHANGE

BOKU UNIVERSITY · UNIVERSITÀ CATTOLICA del Sacro Cuore · ciimar · INRAE · USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA · QUEEN'S UNIVERSITY BELFAST · BIOMIN part of dsm-firmenich

Proposal stage

Proposal Evaluation Form		
	EUROPEAN COMMISSION Horizon Europe Framework Programme (HORIZON)	Evaluation Summary Report - Doctoral Networks

Call:	HORIZON-MSCA-2022-DN-01
Type of action:	HORIZON-TMA-MSCA-DN
Proposal number:	101119901
Proposal acronym:	BIOTOXDoc
Duration (months):	48
Proposal title:	Safe food in a world of changing climate: The doctoral training programme to develop novel control, mitigation and risk assessment methods for biotoxins
Activity:	ENV

H2020-MSCA-ITN-2018	93.6%
H2020-MSCA-ITN-2019	90.2%
H2020-MSCA-ITN-2020	95.2%
HORIZON-MSCA-2021-DN-01	83.8%
HORIZON-MSCA-2022-DN-01	95.6%



BOKU

Excellent candidates

- **Mobility requirements**
- Advertising 10 PhD positions
- About 500 applications
- Screening of applications, ranking candidates
- Almost 50 online interviews
- Inviting best candidates for assessment days to Vienna
- **Assessing scientific knowledge, logical thinking, ability to learn, etc.**
- Selecting best candidates
- PhD theses started 2024
- **Common training on biotoxins, climate change, scientific writing, IP, etc.**
- **Industrial secondments started 2025**
- Mandatory school visits to promote natural sciences to kids
- **First candidates will graduate early 2027**

ORAL SESSIONS

WEDNESDAY November 4, 2026

16:20–16:30 L57 ★

DIGGING DEEPER INTO ERGOT ALKALOIDS: A COMPARATIVE VIEW OF ALKALOID CONTAMINATION IN GRAIN AND SCLEROTIA

Alessandro Volkov, University of Chemistry and Technology in Prague, Prague, Czech Republic

17:40–17:50 L62 ★

EARLY SCREENING APPROACH FOR DETECTION OF MYCOTOXIN-PRODUCING FUSARIUM GRAMINEARUM BY ITS VOLATILE ORGANIC COMPOUND PROFILES

Klaudia Moskot, Wageningen Food Safety Research, Wageningen University & Research & Laboratory of Organic Chemistry, Wageningen University & Research, Wageningen, The Netherlands

C3

DETECTION OF TROPANE ALKALOIDS BY COMBINING PAPER-IMMOBILIZED LIQUID-PHASE MICROEXTRACTION AND SURFACE-ENHANCED RAMAN SPECTROSCOPY INTEGRATED WITH CHEMOMETRICS

Maryam Dehbasteh, Ids B. Lemmink, Nick Birse, Gert Ij. Salentijn, Cuong Cao

R55

TRACING THE FATE OF OCHRATOXIN A IN MAIZE BY 13C AND 14C LABELLING

Filip Petronijevic, Gerlinde Wiesenberger, Christoph Buschl, Rainer Schuhmacher, Gerhard Adam, Franz Berthiller

18-19/01/2027

Next Generation Scientists in Food Safety

Symposium organised by BIOTOX Doc

PIACENZA, ITALY



- **Next Generation Scientists in Food Safety Symposium**
- **18–19 January 2027** at the **Università Cattolica del Sacro Cuore** in **Piacenza, Italy**
- bringing together **early-career researchers, scientists and professionals working in food safety**
- sessions on climate change, toxicology, **novel analytical methods and food safety**
- **high profile keynote speakers**
- abstract submission and **registration until end of November**
- **free of charge**

BOKU

Thank you for your attention

