

# Dana Emanuela Tiodar (married Lushnykov)

## WORK EXPERIENCE

---

[ 01/10/2020 – Current ]

### PhD Student

***Doctoral School of Integrative Biology, Babeş-Bolyai University***

**City:** Cluj-Napoca | **Country:** Romania

Research activities in bioinformatics, molecular biology, biochemistry and plant physiology:

Plant and microorganisms cultivation, different media (hydroponics, *in vitro*, soil).

Heavy metal treatment. Soil samples manipulation and analyses.

DNA extraction and manipulation (PCR, electrophoresis, cloning), ARN extraction (qPCR), protein extraction (SDS-PAGE electrophoresis, enzyme activity measurements).

Data collection and analysis (Biostatistics) and visualization (R). Bioinformatic analyses (Metabarcoding amplicon sequencing).

Writing reports, review/ science papers.

[ 16/10/2023 – Current ]

### Research assistant

***ARAGORN - Achieving Remediation And GOverning Restoration of contaminated soils Now, HORIZON***

**City:** Cluj-Napoca | **Country:** Romania

eDNA sampling design, field sampling, data manipulation and analysis, bioinformatic processing of eDNA data

[ 01/10/2024 – Current ]

### University teaching assistant - Plant Biochemistry practical courses

***Babeş-Bolyai University, Faculty of Biology and Geology***

**City:** Cluj-Napoca | **Country:** Romania

[ 07/12/2021 – 31/08/2022 ]

### Research assistant

***BioPhyt Research Project - PN-III-P2-2.1-PED-2019-5254***

**City:** Cluj | **Country:** Romania

Research project "Decontamination of heavy metal polluted soils by exploiting the plant rhizosphere interactions." Project Director: Dorina Podar

[ 15/12/2021 – 14/03/2022 ]

### Short Term Scientific Mission - Lab of Prof. Dr. Ute Krämer, Ruhr University

***COST Action 19116***

**City:** Bochum | **Country:** Germany

[ 01/09/2020 – 31/10/2021 ]

### Research fellowship - Prof. Dr. Ute Krämer Lab, Ruhr University

***Deutsches Bundesstiftung Umwelt (DBU) - MOE mobility***

**City:** Bochum | **Country:** Germany

## EDUCATION AND TRAIN- ING

---

[ 10/06/2024 – 12/06/2024 ]

**Plant cultivation in metal polluted environments: soil-plant metal transfer assessment, human health exposure and risks, and phytomanagement options - Training School**

## ***EU COST Action 19116***

**City:** Cluj-Napoca | **Country:** Romania |

**Open Course - Plotting Literacy for genomics: from raw data to plotting and vice versa**

[ 27/11/2023 – 29/11/2023 ]

***Babeş-Bolyai University***

**City:** Cluj-Napoca | **Country:** Romania |

[ 23/10/2023 – 25/10/2023 ]

**Practical Course of Pathogen Genomics**

***Babeş-Bolyai University***

**City:** Cluj-Napoca | **Country:** Romania |

[ 03/07/2023 – 30/09/2023 ]

**Erasmus+ Traineeship - Bioinformatic Analyses of Environmental Samples**

***Biology Center of the Czech Academy of Sciences***

**City:** Ceske Budejovice | **Country:** Czechia |

[ 24/04/2023 – 26/04/2023 ]

**Advanced Genomic Techniques - Nanopore Technology - Course**

***Babeş-Bolyai University***

**City:** Cluj | **Country:** Romania |

[ 2016 – 2019 ]

**Master in Molecular Biotechnology**

***Faculty of Biology and Geology, Babeş-Bolyai University***

**City:** Cluj-Napoca | **Country:** Romania |

[ 2013 – 2017 ]

**Bachelor Degree in Biology, Biochemistry major**

***Faculty of Biology and Geology, Babeş-Bolyai University***

[ 2008 – 2013 ]

**High School Diploma**

***Avram Iancu 2009 - 2013***

**City:** Cluj-Napoca | **Country:** Romania |

## **LANGUAGE SKILLS**

**Mother tongue(s):** Romanian

**Other language(s):**

**English**

**LISTENING C2 READING C2 WRITING C2**

**SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2**

**German**

**LISTENING B1 READING B1 WRITING A2**

**SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## **DIGITAL SKILLS**

**My Digital Skills**

Microsoft Office | R (Rstudio) | PAST (Multivariate data analysis program) | Bash - Shell  
| Linux

## PUBLICATIONS

[ 2024 ] [Tiodar, E.D., Chiriac, C.M., Pošćić, F., Văcar, C.L., Balázs, Z.R., Coman, C., Weindorf, D.C., Banciu, M., Krämer, U. and Podar, D. \(2024\). Plant colonizers of a mercury contaminated site: trace metals and associated rhizosphere bacteria. Plant and Soil, pp.1-24.](#)

[ 2021 ] [Tiodar, E. D., Văcar, C. L., & Podar, D. \(2021\). Phytoremediation and microorganisms-assisted phytoremediation of mercury-contaminated soils: Challenges and perspectives. International Journal of Environmental Research and Public Health, 18\(5\), 2435.](#)

## CONFERENCES AND SEMINARS

[ 17/05/2024 – 18/05/2024 ] **BIOTA - Biodiversity, Traditions, and Present, 9th Edition** Cluj-Napoca, Romania

Oral Presentation "Insights into Plant Colonization in Mercury-Contaminated Sites: Trace Metals and Rhizosphere Microbiome Interactions" - awarded **Best Oral Presentation** for section Molecular Biotechnology - Health and Environment

[ 12/04/2024 – 13/04/2024 ] **The 2024 RoBioinfo Conferance - atendant** Cluj-Napoca, Romania

[ 05/06/2023 – 06/06/2023 ] **BIO.T.A - biodiversity, traditions, and curent progress symposium** Cluj-Napoca, Romania

Oral Presentation "Screening spontaneous native flora for phytomanagement purposes at a heavily mercury contaminated polymetallic site"

[ 13/04/2023 – 14/04/2023 ] **COST CA 19116 Spring Meeting** Smolenice Castle, Slovakia

Poster "Plant Colonizers at a Former Chlor-Alkali Plant Brownfield: Trace Metals and Associated Rhizosphere Bacteria"

[ 21/10/2022 – 23/10/2022 ] **The International Conference of the Romanian Societiy for Cell Biology 2022** Cluj-Napoca, Romania

Oral Presentation "Plant Colonizers of a Mercury Hotspot Site: Trace Metals and Associated Rhizosphere Bacteria"

## VOLUNTEERING

[ 30/09/2024 – 30/09/2024 ] **ReCoNnect Researchers Night - Colours of pH Workshop** Cluj-Napoca, Romania

[ 27/09/2024 – 27/09/2024 ] **European Researchers Night - How to extract DNA from fruits Workshop** Cluj-Napoca, Romania

Faculty of Biology and Geology, Babeş-Bolyai University

[ 30/09/2022 ] **European Researchers Night - DNA Extraction Workshop** Cluj-Napoca

[ 28/07/2022 – 31/07/2022 ] **Teaching assistant at ROSE Summer School for high-school students** Faculty of Biology and Geology, Babeş-Bolyai University

[ 14/09/2019 – 17/09/2019 ] **Teaching assistant in the training of the Saudi Arabia national team for the International Biology Olympiad**

Faculty of Biology and Geology, Babeş-Bolyai University

[ 2014 – 2016 ] **Assisting children with homework and learning** Casa familială "A-Mic", Centru de plasament pentru copii, Cluj-Napoca, Strada Rarău, Nr. 24