



Klara Filek, PhD

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Summary

- Highly motivated and enthusiastic microbiome scientist with a strong background in host-associated microbiota and a passion for finding microbial solutions to global health challenges
- Expert in planning, managing and conducting scientific experiments along with data analysis yielding high-quality results presented to diverse audiences leading to the successful completion of a 5-year project supported by Croatian Science Foundation grant worth 260 000 EUR
- Supportive team player in several multi-national working environments who enjoys community-based problem-solving and strives for continuous improvement and process optimization

Experience

- 11/2023-present** **Research and Data Analysis internship**
Chr. Hansen - Hørsholm, Denmark
- Consulting on and analyzing ONT microbiome data within an interdisciplinary team (funded by FEMS industry placement grant)
- 03/2023-08/2023** **Postdoctoral Researcher**
University of Zagreb, Faculty of Science - Zagreb, Croatia
- Analyzed and visualized bacterial and fungal microbiome amplicon NGS data via QIIME 2 and R ([GitHub project](#)) which resulted in a research manuscript currently under review
 - Co-mentored a master student in data analysis for their thesis
- 10/2018-12/2022** **Researcher (PhD)**
University of Zagreb, Faculty of Science - Zagreb, Croatia
- Successfully managed multiple research projects by closely monitoring progress, adapting strategies, and delivering results on time, on-site and remotely
 - Developed and optimized protocols for analyzing microbial communities
 - Conducted experiments and reproducible analyses using molecular techniques, microscopy, cell micromanipulation, co-culturing experiments, multi-mode imaging
 - Proficient in data analytics and visualization of data obtained by imaging and sequencing techniques with ImageJ, QIIME 2 and R; experienced in working with Unix systems and utilizing CLI (bash scripting), familiar with version control, collaboration, and reproducible workflows in GitHub
 - Secured funding for research visits & training at collaborating institutions (Belgium) at approximate value of 6000 EUR
 - Developed strong leadership skills, project management skills and effective communication in coordinating international team members and presenting complex ideas to diverse audiences (general public, teaching, and mentoring)
 - Published six publications ([Google Scholar](#)); presented eight poster presentations & gave two lectures at international conferences ([Research Gate](#)); won two poster awards

- Created [content for the Microbiologist & Int. Day of Microorganisms](#), won [scientific image/photo awards](#) (NCCR microbiomes/Croatian Science Foundation)

09/2017-06/2018

Master student researcher

University of Uppsala - Uppsala, Sweden

- Conducted molecular cloning and competition experiments with *Escherichia coli* EC93, resulting in a co-authorship on a [publication](#)

10/2014-10/2015

Team lead

Biology student's association (BIUS) - Zagreb, Croatia

- Organized section meetings and coordinated fieldwork research for the Microbiology interest section

Education

10/2018-12/2022

PhD in biology: subfield microbial ecology

University of Zagreb, Faculty of Science – Zagreb, Croatia

08/2016-06/2018

Master of Science in biology: specialization microbiology and immunology

Uppsala University, IBG – Uppsala, Sweden

09/2011-09/2015

Bachelor's degree in biology

University of Zagreb, Faculty of Science – Zagreb, Croatia

Courses, trainings & workshops

10/2023

Project management (HAMAG-BICRO, BioCenter, IDS Cosulting, Zagreb, Croatia)

09/2022

EU TalentOn competition in providing solutions for EU Missions (Restore our Oceans and Waters); [Won 2nd prize](#) within Mission Arena (European Commission, Leiden, Netherlands)

02/2022

Leadership in science workshop (Penkala Association, Zagreb, Croatia)

01/2022

Unix and Shell scripting for bioinformatics course (Physalia Courses, Berlin, Germany)

11/2021

Data visualization in R with ggplot2 course (Physalia Courses, Berlin, Germany)

10/2021

ISB Virtual Microbiome Series Course and Symposium (ISB, Seattle, WA, USA; online)

09/2021

Data visualization with Python course (Physalia Courses, Berlin, Germany)

07/2021

Data analysis with the Tidyverse course (Physalia Courses, Berlin, Germany)

09-12/2020

Sci. training at Ghent University with acquired grant valued at min.6000 EUR (Ghent, Belgium)

06/2020

Metagenomics, metatranscriptomics, and multi'omics for microbial community studies course (Physalia Courses, Berlin, Germany)

01/2020

Programming in Python D460 (University Computer Centre SRCE, University of Zagreb, Croatia)

09/2019

Basics of programming (Python) D450 (University Computer Centre SRCE, University of Zagreb, Croatia)

05/2019

Sci. training at Stazione Zoologica Anton Dohrn (Naples, Italy)

05/2019

Trainers' Training (Projectus Group, Zagreb, Croatia)

12/2018

Sci. training at Belgian Coordinated Collections of Microorganisms (BCCM/DCG, Ghent, Belgium)

11/2018

R syntax and using R in basic statistical and graphic data analysis S720 (University Computer Centre SRCE, University of Zagreb, Croatia)

Professional skills

Technical experience	microbial cultures (diatoms and bacteria), DNA isolation, PCR, amplicon purification, gel electrophoresis, light microscopy, isolation and micromanipulation of cells, Cytation 3 (Biotek) plate reader
Data analysis	data acquisition, preparation, analysis, and visualization; R in RStudio (tidyverse, ggplot2, vegan), data extraction from images by ImageJ, microbial community analyses in Qiime2 (and related plugins), familiar with Unix Bash shell scripting
IT	Microsoft Office (Word, Excel, Power Point), remote work platforms (Slack, Zoom, Teams), Adobe Illustrator, GIMP
Languages	Croatian (native), English (C2/CPE)
Other	Drivers license B category

Hobbies and interests

I love creating things with my own hands, but most of my time goes into hiking (usually day trips on tame terrains like Paklenica or Sljeme) and dissecting the storywriters' decisions in culturally relevant sci-fi series across multiple streaming platforms/books/graphical novels. Recently, I became interested in philosophy of existentialism and epistemology as there is some comfort in exploring the diversity of human experience throughout our modern (and written) history. And cats, always cats.