

MASTER'S DEGREE, MOLECULAR BIOLOGY
BACHELOR'S DEGREE, MOLECULAR BIOLOGY
UNIVERSITY OF ZAGREB, FACULTY OF SCIENCE

KARLO MIŠKEC

CONTACT

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SKILLS

PRACTICAL LABORATORY SKILLS:

- Proficient in molecular cloning
- Experienced in optimization of recombinant protein solubility, expression and purification
- Bacterial and yeast transformation and cultivation
- Plant tissue culture cultivation and manipulation
- Proficient in molecular methods such as PCR, western blot, pull down, yeast two hybrid, biolistic plant transformation, qPCR, FISH
- Basic knowledge in animal tissue culture cultivation, manipulation and fluorescent microscopy

OTHER SKILLS:

- Proficient in Microsoft Office and SnapGene
- Driver's license category B
- Basic knowledge in bioinformatics (searching databases, alignments, phylogenetic trees, protein sequences analysis, ...)

PROJECTS

1. BIOSTUDOLOGJE

High school and college student meetings.

2016 – public lecture about Gregor Mendel

2019 – public lecture about the effects of curcumin

2. NIGHT OF BIOLOGY 2015, 2016 & 2019

Popular science event organized by the University of Zagreb. I was in charge of organizing workshops and in 2019 I was also an organizer of the event.

3. CONGRESS OF BIOTECHNOLOGY STUDENTS, PARTICIPANT 2019

4. OTHER PROJECTS:

JAGIĆ MATEJA, MARKULIN LUCIJA, ŠKILJAICA ANDREJA, MIŠKEC KARLO, BAUER NATAŠA, [LEJAK-LEVANIĆ DUNJA](#), 2019. EPIGENETIC FLEXIBILITY OF PLANTS. HUMBOLDT KOLLEG (SCIENCE AND EDUCATION CHALLENGES FACING EUROPE IN THE NEXT DECADE), ZAGREB, OCTOBER 10-11 (POSTER PRESENTATION)

[MARKULIN LUCIJA](#), JAGIĆ MATEJA, ŠKILJAICA ANDREJA, MIŠKEC KARLO, BAUER NATAŠA, [LEJAK-LEVANIĆ DUNJA](#), 2019. A NOVEL ROLE OF ARABIDOPSIS BPM1 PROTEIN IN RNA-DIRECTED DNA METHYLATION. 2ND INTERNATIONAL CONFERENCE ON PLANT & MOLECULAR BIOLOGY, AMSTERDAM, OCTOBER 23-25 (ORAL PRESENTATION)

LANGUAGES

CROATIAN (NATIVE LANGUAGE)

GERMAN B1: DEUTSCHES SPRACHDIPLOM
(27.05.2014.)

PROFICIENT IN ENGLISH

EXPERIENCE

MASTER'S INTERNSHIP

Faculty of Science | University of Zagreb | 10/2018 – 9/2019

In my master's thesis project, I gained experience in protein and DNA analysis methods. I have worked with plant recombinant proteins expressed in bacterial strains and have gained great experience in optimization of protocols for increasing protein solubility and expression. During my thesis project I have mastered Western blot and pull down methods and molecular cloning.

Reference: dunja.leljak-levanic@biol.pmf.hr

INTERNSHIP – PLANT TISSUE CULTURE LABORATORY

Faculty of Science | University of Zagreb | 3/2018 – 7/2018

During my internship I have mastered working with HF7c and AH109 yeast strains. I have also worked with *A. thaliana* seedlings and torpedo embryos. I have gained experience in yeast cultivation and transformation, yeast two hybrid method and X-Gal and ONPG tests used on yeast strains as well as embryo isolation, manipulation and cultivation of *A. thaliana*.

Reference: dunja.leljak-levanic@biol.pmf.hr

DEMONSTRATOR/TEACHING ASSISTANT

Faculty of Science | University of Zagreb |

I have assisted in several Laboratory exercises during my college experience in the following courses:

Fundamentals of Physical Chemistry 2016/17

Biochemistry 2 2016/17

Animal and Plant Cell culture 2017/18 and 2018/19

Developmental Biology 2018/19

Mechanisms of Plant Development 2018/19

Genetic Engineering in Biotechnology 2018/19

EDUCATION

MASTER'S DEGREE IN MOLECULAR BIOLOGY

Faculty of Science | University of Zagreb | 10/2017 – 9/2019

Master's Thesis: The role of conserved BPM1 protein domains MATH, BTB and SPOF in interaction with DMS3, RDM1 and HB6 proteins

Graduated: magna cum laude (GPA 4.91 on the scale of 1 to 5)

Mentor: Assoc. Prof. Dunja Lejlač-Levanić, PhD

LABANIM COURSE: TRAINING FOR WORKING WITH LABORATORY ANIMALS

Faculty of Science | University of Zagreb | 10/2018 – 2/2019

Category: A (FELASA B)

Number: 80.2 19 HR 191/02/P

Grade: 5 (on the scale of 1 to 5)

BACHELOR'S DEGREE IN MOLECULAR BIOLOGY

Faculty of Science | University of Zagreb | 10/2014 – 7/2017

Bachelor's Thesis: Protective role of tardigrade proteins against DNA damage

Graduated: summa cum laude (GPA 4.92 on the scale of 1 to 5)

Mentor: Assoc. Prof. Ivana Ivančić Baće, PhD

AWARDS AND SCHOLARSHIPS

Dean's faculty award for the best student of molecular biology (2019)

Township of Zlatar Bistrica, Scholarship for the most successful students in the academic years, 2016/2017, 2017/2018 and 2018/2019