PERSONAL INFORMATION

Name and surname	Katarina Pecić
Date and place of birth	13.04.1995., Kraljevo
Scientific title	Junior Research Assistant
E-mail	katarina.pecic@uni.kg.ac.rs
Educational-scientific / educational-artistic field	Technical and technological sciences
University, Faculty, Organizational unit	University of Kragujevac, Institute for Information Technologies, Department of technical and technological sciences
Research field and areas	Bioengineering

EDUCATION

BACHELOR

Year	2020.
Place	Kragujevac
Institution	Faculty of Natural Sciences and Mathematics, University of Kragujevac

MASTER STUDIES

Year	2022.
Place	Kragujevac
Institution	Faculty of Natural Sciences and Mathematics, University of Kragujevac

DOCTORAL DISSERTATION

Year	2021-
Place	Kragujevac

Institution	Faculty of Engineering, University of Kragujevac
Title of doctoral dissertation	
Scientific title	Junior research assistant
Research area	Bioengineering

PROFESSIONAL BIOGRAPHY – ELECTION IN RESEARCH OR SCIENTIFIC TITLE

Date	Institution	Scientific title
25.08.2022.	Institute for Information Technologies, University of Kragujevac	Junior Research Assistant

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS

- Serbian Society for Molecular biology

LIST OF SCIENTIFIC PAPERS:

Monographs, Monographic studies, Thematic anthologies	**Sum**
Papers published in scientific journals of international scientific importance	**Sum**
Proceedings of international scientific conferences	**Sum 3**

1. **Pecić Katarina,** Jovanović Milena, Arsenijević Dejan, Pavić Jelena, Grujović Mirijana, Mladenović Katarina, Virijević Katarina, Živanović Marko, Šeklić Dragana. *Laetiporus sulphureus* affects migration and superoxide anion radical levels in HeLa cervical cancer cells. The 3rd International Electronic Conference on Foods; Food,

Microbiome, and Health: *Biology and life sciences forum*. 2022, *18*(1); 6. https://doi.org/10.3390/Foods2022-12933

2. Jovanović Milena, Virijević Katarina, Pavić Jelena, Arsenijević Dejan, **Pecić Katarina,** Kastratović Nikolina, Živanović Marko, Šeklić Dragana. Antimigratory activity of royal jelly on HCT-116 colorectal cancer cells. The 3rd International Electronic Conference on Foods; Food, Microbiome, and Health: *Biology and life sciences forum*. 2022, *18*(1); 60. https://doi.org/10.3390/Foods2022-12951
3. Arsenijević Dejan, Jovanović Milena, **Pecić Katarina,** Grujović Mirijana, Mladenović Katarina, Šeklić Dragana. Effects of *Laetiporus sulphureus* on viability of HeLa cells in co-culture system with *Saccaromyces boulardii*. The 3rd International Electronic Conference on Foods; Food, Microbiome, and Health: *Biology and life sciences forum*. 2022, *18*(1); 69. https://doi.org/10.3390/Foods2022-13028

Proceedings of national scientific conferences	**Sum**
Monographs of national importance	**Sum**
Scientific papers in national journals	**Sum**
Technical solutions	**Sum**
Patents	**Sum**

BRIEF DESCRIPTION OF RESEARCH IN THE PREVIOUS PERIOD

In the previous period, the focus of the work in the Bioengineering laboratory was on understanding the fundamental techniques used in the cell culture laboratory, as well as being familiar with the sterile working conditions in the cell culture laboratory. Basic cytotoxicity tests were performed on cell lines treated with various cytostatics, as well as mushroom and plant extracts. Additionally, essays for the analysis of the redox balance, as well as the immunofluorescence method for the examination of protein expression and

protein localization were performed. Establishing and optimizing the conditions for the co-culture concept was part of the work in the previous period. Cytotoxicity and apoptosis assays were performed with co-cultures of probiotic bacteria and different immortalized cancer cell lines. Research has been started on introducing and developing the zebrafish model system to use it as an *in vivo* model for the examination of the toxicological effects of potential treatments. The results of previous research were presented through 5 papers at 3 international conferences („*The 3rd International Electronic Conference on Foods; Food, Microbiome, and Health*", „*The 26th International Electronic Conference on Synthetic Organic Chemistry*" and „*The 3rd International Electronic Conference on Cancers*" (IECC2023)).

BRIEF DESCRIPTION OF PLANNED RESEARCH IN THE NEXT PERIOD

In the following period, the work in the laboratory will carry on to get acquainted with new, more complex techniques used in the cell culture laboratory. Further research in the domain of deeper protein analysis and within proteomics. Research in the field of cytotoxicity and toxicity on cell lines in treatments with different cytostatics, mushroom, and plant extracts. Improvement and optimization of co-culture conditions will go ahead. Experiments with co-cultures between probiotic bacteria and various immortalized cancer cell lines will continue. The research will keep on in the direction of introduction and development of the zebrafish model system for use in *in vivo* analyses to examine the toxicological effects of potential treatments.