



Nevena Kitanović

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ABOUT ME

I am a researcher in fish reproductive biotechnology with a strong background in cell and tissue biology. My technical expertise centers on developing *in vitro* culture systems for ovarian follicles of freshwater species, alongside optimizing cryopreservation protocols for gametes and early-stage germ cells. The primary goal of this work is to translate cellular models into practical tools for assisted reproduction. Additionally, I am involved in student mentoring, co-teaching courses and providing specialized training to incoming researchers.

WORK EXPERIENCE

Hungarian University of Agriculture and Life Sciences (MATE) – Gödöllő, Hungary

Website: <https://godollo.uni-mate.hu/en/institutes/institute-aquaculture-and-environmental-safety> | **Name of unit or department:** Institute of Aquaculture and Environmental Safety | Department of Aquaculture | - **Business or sector:** Agriculture, forestry and fishing

University Research Assistant

[28/02/2019 – Current]

Member of the **Fish Reproductive Biology Research Group**, focusing on gamete conservation, *in vitro* culture, and assisted reproduction techniques.

Main Activities and Responsibilities:

- **In Vitro Culture and Modeling:** Led the design of *in vitro* maturation (IVM) systems for fish ovarian follicles to predict induced spawning outcomes. Executed germ cell isolation and viability testing for artificial *in vitro* gonad development.
- **Cryopreservation and Field Research:** Optimized cryopreservation protocols for fish gametes, early-stage germ cells, and gonadal tissue. Conducted international fieldwork (Croatia) to cryopreserve marine bivalve larvae and perform histological assessments of oyster pathogen loads.
- **Lab Management and Grant Writing:** Managed specialized histology and cryopreservation facilities. Contributed to grant writing, data analysis, and technical reporting for multiple state and international research projects.
- **Academic Outreach:** Co-taught university courses on fish reproduction, supervised undergraduate projects, and served as the primary trainer for cell culture and histology techniques.

University of Novi Sad | Faculty of Sciences – Novi Sad, Serbia

Website: endos.pmf.uns.ac.rs

Research Assistant

[31/05/2015 – 30/11/2018]

Member of the **Laboratory for Endocrine Disruptors and Cell Signaling (ENDOS)**.

Participated in research projects focusing on the mechanism of action of endocrine-disrupting chemicals, using *in vitro* and *in vivo* animal model systems:

- *Endocrine disrupting compounds: reproductive, metabolic, developmental responses and mechanisms of action in selected model organisms and cell lines* - funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia
- *Responsiveness of Mitogen-activated Protein-Kinase Signaling on Chemical Exposure of Human and Fish Cells* - funded by the Swiss National Science Foundation (SCOPE)

University of Novi Sad | Faculty of Sciences – Novi Sad, Serbia

Website: www.pmf.uns.ac.rs | **Email address:** info@pmf.uns.ac.rs | **Business or sector:** Education

University Teaching Assistant

[31/12/2015 – 30/11/2018]

Lead practical classes and developed teaching materials for students at the undergraduate level

Prepared and supervised examinations

Evaluated and graded examinations, assignments and papers

Course list:

- Cell Biology
- Chordate Zoology
- Histology with Embryology
- Cell and Tissue Processing in Histology
- Animal Cell and Tissue Culture Techniques

EDUCATION AND TRAINING

PhD | Animal Biotechnology and Animal Science

Hungarian University of Agriculture and Life Sciences [31/08/2019 – 30/08/2026]

Address: Péter Károly 1, Gödöllő (Hungary) | Website: sziu.hu/animal-husbandry-science-phd-school | Field(s) of study: Agriculture, forestry, fisheries and veterinary | Thesis: Development of culture systems to support in vitro oogenesis in fish

MSc in Molecular Biology

University of Novi Sad, Novi Sad | Faculty of Sciences | Department of Biology and Ecology [31/08/2014 – 31/08/2015]

Address: Trg Dositeja Obradovića 2, Novi Sad (Serbia) | Website: www.dbe.uns.ac.rs | Final grade: 10.00 (scale grade: 6 to maximum of 10)

Title of thesis: *In vitro and computational investigations of protein-ligand interactions in human aldo-keto reductase 1C3: application for the design of novel inhibitors with anticancer potential*

Mentor: Dr Edward Petri, Assistant Professor at the Department of Biology and Ecology, Faculty of Sciences in Novi Sad

BSc in Molecular Biology

University of Novi Sad, Novi Sad | Faculty of Sciences | Department of Biology and Ecology [31/08/2010 – 31/08/2014]

Address: Trg Dositeja Obradovića 2, Novi Sad (Serbia) | Website: www.dbe.uns.ac.rs | Final grade: 9.26 (scale grade: 6 to maximum of 10)

EMBL Advanced Course | Hands-on Flow Cytometry

European Molecular Biology Laboratory (EMBL) [01/05/2022 – 15/05/2022]

City: Heidelberg | Country: Germany | Website: <https://www.embl.org>

An intensive, practical training program focused on the principles and advanced applications of flow cytometry. The course provided comprehensive hands-on experience in multi-parameter panel design, fluorescence-activated cell sorting (FACS), instrument calibration, and troubleshooting. Additionally, training included in-depth quantitative data analysis and visualization using specialized software (e.g., FlowJo) for complex cell biological assays.

Summer School | Zebrafish as Models in Biomedical Research: Focus on Gene, Brain and Behaviour

Radboud University | Department of Animal Ecology and Physiology [08/2017 – 08/2017]

City: Nijmegen | Country: Netherlands | Website: www.ru.nl/radboudsummerschool

Summer course organized by the Radboud Summer School.

The course was a comprehensive introduction to different approaches of using zebrafish as a model organism, with the main focus on neurological, behavioral and genetic research.

Research Training | Cell Culture Techniques and Alternatives to Animal Testing

Swiss Federal Institute of Aquatic Science and Technology (EAWAG) [31/03/2016 – 31/05/2016]

City: Dübendorf | Country: Switzerland | Website: www.eawag.ch

Three-month visit to the [Department of Environmental Toxicology, Research Group for Animal Cells and Organisms](#) led by Prof. Dr. Kristin Schirmer, in the frame of an international SCOPES project (No. IZ73Z0_152743/1). Training involved working with established fish cell lines, learning cell culture techniques and the methods used in the evaluation of cytotoxicity of different xenobiotic compounds in fish model systems.

Workshop Seminar | Basics of Working with Experimental Animals

Ethics Council for Welfare of Animals used in Animal Testing of Republic of Serbia [10/2015 – 10/2015]

City: Belgrade | Country: Serbia | Final grade: Certificate of Accomplishment - V category

Short course organized by the Ethics Committee for the Welfare of Experimental Animals at the University of Novi Sad, on the methods and techniques necessary for the proper handling and treatment of animals most often used in experimental studies, with the emphasis on the welfare of the animals and ethical conduct of the researcher.

LANGUAGE SKILLS

Mother tongue(s): Serbian

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

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

HONOURS AND AWARDS

[06/2019] Tempus Public Foundation in Hungary

Stipendium Hungaricum Scholarship Higher education scholarship programme of the Hungarian Government, supervised by the Ministry of Foreign Affairs and Trade of Hungary and managed by the Tempus Public Foundation, which aims to support the international students to continue their education in Hungary.

[03/2017] European Commission - Erasmus+ Programme

Erasmus+ Scholarship for the Learning Mobility of Individuals Scholarship given by the Erasmus+ Programme (Key Action 1) for the funded mobility of doctoral students and teaching staff of the University of Novi Sad to the Radboud University in Nijmegen, Netherlands

[10/2015] Goran Ljubijankic Foundation - Institute of Molecular Genetics and Genetic Engineering, Belgrade

Best Master's Thesis in the field of Molecular Biology for the academic year of 2015

PROJECTS

[01/09/2024 – 01/09/2026]

2023-1.2.4-TÉT-2023-00031 | Population Genetic Assessment and Conservation of Edible Oyster Stocks in Croatia *Participant*

[01/09/2022 – 01/09/2026]

NKFI_FK_142933 | Surrogate production of genome edited fish *Participant*

[01/09/2021 – 01/09/2025]

NKFI PD 139053 | In vitro oocyte maturation dynamics in pikeperch (Sander lucioperca) *Participant*

[01/09/2021 – 01/09/2025]

NKFI_K_138425 | Research towards in vitro gonads in freshwater fish *Participant*

[01/09/2019 – 01/09/2021]

NKFI_FK_124585 | Conservation of female genetic resources in fish *Participant*

NETWORKS AND MEMBERSHIPS

[01/03/2026 – Current]

Aquaculture Reports | Elsevier Journal Member of the Editorial Board

Link: <https://www.sciencedirect.com/journal/aquaculture-reports/about/editorial-board>

[01/02/2022 – Current]

European Aquaculture Society | EAS The [European Aquaculture Society \(EAS\)](#) is a professional non-profit organization dedicated to fostering collaboration, sharing scientific research, and promoting sustainable development among academics and industry professionals across the European aquaculture sector.

2023-2025 | Performed as a National Coordinator for Hungary in the EAS Student Group

[05/2020 – Current] USA, Maryland

Society for Cryobiology [International Society for Low Temperature Biology and Medicine](#) is a society with the purpose of promoting scientific research in low temperature biology, improving scientific understanding in this field, and disseminating this knowledge.

[06/2021 – Current] USA, North Carolina

The Society for In Vitro Biology [The Society for In Vitro Biology \(SIVB\)](#) is a professional society devoted to fostering the exchange of knowledge of in vitro biology of cells, tissues and organs from both plant and animals

PUBLICATIONS

ORCID database

MTMT database

SCOPUS database