

Curriculum vitae

First Name and Surname: Nevena Djukic

Employment: University of Kragujevac, Faculty of Science

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Date of birth: 28.04.1965.



Education

- **1989 BSc** in Biology, Faculty of Science, University of Kragujevac, Kragujevac, Serbia.
Bachelor thesis: “Comparative ecological studies of high-yielding wheat varieties Kragujevačka-56 and Kraljevica at a variety trial of the Institute of Cereals in Kragujevac”
- **1996 MSc**, Faculty of Science, University of Kragujevac, Kragujevac, Serbia.
MSc Thesis: “Biochemical characteristics of the development of selected cultures of fungi in a function of concentration and chemical structure of the investigated detergent”
- **2004 PhD** in Biology, Area of research biochemistry, Faculty of Biology, University of Belgrade, Belgrade, Serbia.
PhD thesis: “Biochemical analysis of prolamins in wheat *Triticum durum*”

Working experience - Positions

- **1992 Assistant**, Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Kragujevac
- **2008 Assistant professor**, Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Kragujevac
- **2014 Associate Professor**, Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Kragujevac
- **2022 Full professor**, Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Kragujevac

Professional Training

- 2009, Università degli Studi di Torino, Dipartimento di biologia Animale e dell’Uomo, training in biochemistry teaching.
- 2018, Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac, „School of practical application of high performance liquid chromatography“, CPD course NetChem: ICT Networking for Overcoming Technical and Social Barriers in Instrumental Analytical Chemistry education.

Curriculum vitae

- 2018, Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac, “School of mass spectrometry of primary and secondary metabolites“, CPD course NetChem: ICT Networking for Overcoming Technical and Social Barriers in Instrumental Analytical Chemistry education.

Research Focus

- Study of the nutritional values of cereal seeds:
- Analysis of the chemical composition of present components (storage and biochemically active proteins);
 - Antioxidant analysis and mechanisms of antioxidative action;
 - Analysis of photosynthetic activity (chlorophyll and carotenoid content) at different developmental stages of cereal crops;
 - Analysis of carbohydrates and dietary fibers;
 - Identification of specific proteins responsible for stress resistance;
 - Study of nanoparticles in crop protection.

Membership of Professional Associations

- Serbian Biochemical Society
- Member of the Board of Directors of the Serbian Proteomic Association (2015-2023)

Involvement in Projects

- 2011–2012: Project Manager of the bilateral cooperation between the Republic of Serbia and the Republic of Croatia, titled “Genetic Polymorphism of Gluten Proteins and Its Relationship to Bread-Making Quality of Wheat (*Triticum aestivum* L.)”, financed by the Ministry of Education and Science.
- 2006–2010: Head of the national project at the Center for Scientific Research of SANU, University of Kragujevac, titled “Variability of Amino Acids in Domestic Wheat Varieties”
- Researcher on the international project Tempus Joint European Project (CD_JEP-40094-2005).
- Participation in Projects Funded by the Ministry of Science and Technological Development, Republic of Serbia:
 - 1996–2000 (12M-03): “Process and Mechanisms of Environmental Contamination and Preservation”
 - 2005–2007 (TP-6893B): “Small Grains – Breeding and Advanced Cultivation Technologies for Yield and Food Quality Improvement”
 - 2007–2008 (IP06-8152B): “Reserve Seed Proteins – Reliable Markers for Variety Identification and Technological Quality Prediction”
 - 2008–2010 (TP-20097A): “Study of Small Grains Genotypes and the Influence of Breeding on Yield, Quality, and Adaptive Ability Improvement”
 - 2011–2019 (TP 31092): “Study of the Genetic Basis for the Improvement of Yield and Quality of Small Grains in Different Environmental Conditions”

Selected publications (2014-2024)

- Torbica A., Radosavljević M., Belović M., Djukić N., Marković S. (2022): Overview of nature, frequency and technological role of dietary fibre from cereals and pseudocereals from grain to bread. *Carbohydrate Polymers*, Vol. 290, 119470. IF - 11,2 **M21A**
<https://doi.org/10.1016/j.carbpol.2022.119470>
- Marković S., Živančev D., Horvat D., Torbica A., Jovankić J., **Djukić N.** (2021): Correlation of elongation factor 1A accumulation with photosynthetic pigment content and yield in winter wheat varieties under heat stress conditions. *Plant Physiology and Biochemistry*, Volume 166, Pages 572-581. <https://doi.org/10.1016/j.plaphy.2021.06.035> ISSN: 0981-942. IF - 4.816 **M21**
- Djukić N.**, Knežević D., Pantelić D., Živančev D., Torbica A., Marković S., (2019): Expression of protein synthesis elongation factors in winter wheat and oat in response to heat stress. *Journal of Plant Physiology* 240. <https://doi.org/10.1016/j.jplph.2019.153015> ISSN: 0176-1617. IF - 3,615 **M21**
- Manojlović, A.; Khalid, A.N.; Usman, M.; Stefanović, O.; **Đukić, N.**; Manojlović, N.; Tomović, J. (2024): Phytochemical Analysis and Antioxidant, Antimicrobial, and Antibiofilm Effects of a New Himalayan Lichen *Placidium deosaiense* Usman and Khalid Grow-ing in Pakistan. *Int. J. Mol. Sci.* 2024, 25, x. <https://doi.org/10.3390> ISSN: 1661-6596. IF – 5.6 **M21**
- Grujović MŽ, Mladenović KG, Marković SM, Đukić NH, Stajić JM, Ostojić AM, Zlatić NM. (2022): Chemical, radiological and microbiological characterization of a drinking water source: a case study. *Lett Appl Microbiol.* 2022 Nov;75(5):1136-1150. doi: 10.1111/lam.13778. PMID: 35765797
IF₍₂₀₂₁₎– 3.086 **M22**
- Djukić, N.**, Knežević, D. (2014): Molecular characterization and genetic diversity analysis β -glucan content variability in grain of oat (*Avena sativa* L.). *GENETIKA* Vol. 46, No 2, pp. 529-536, UDC 575:630 DOI: 10.2298/GENSR1402529D, ISSN 0534-0012. IF-0,492 **M23**
www.dsggenetika.org.rs/abstrakti/vol46_2014_no2_sr.htm
- Živančev D., Horvat D., Torbica A., Belović M., Šimić G., Magdić D., **Đukić N.** (2015): Benefits and Limitations of Lab-on-a-Chip Method over Reversed-Phase High-Performance Liquid Chromatography Method in Gluten Proteins Evaluation. *Journal of Chemistry*. Volume 2015 (2015), Article ID 430328, ISSN: 2090-9063; DOI: 10.1155/2962. IF – 1,074 **M23**
<https://www.hindawi.com/journals/jchem/2015/430328/>
- Marković, S., **Đukić, N.**, Knežević, D., Leković, S. (2017): Divergence of barley and oat varieties according to their content of β -glucan. *J. Serb. Chem. Soc.* 82 (4) 379–388 (2017), JSCS–4973. DOI: 10.2298/JSC1610310010M ISSN: 0352-5139 (**corresponding author**) IF – 1.015 **M23**
www.shd.org.rs/JSCS
- Torbica, A., Horvat, D., Živančev, D., Belović, M., Šimić, G., Magdić, D., **Đukić, N.**, Dvojković, K. (2017): Prediction of the genetic similarity of wheat and wheat quality by reversed-phase high-performance liquid chromatography and lab-on-chip methods. *Acta Alimentaria*, Vol. 46 (2), pp. 137-144 (2017) DOI: 10.1556/066.2016.0003 ISSN: 0139-3006. IF – 0.424 **M23**
<https://doi.org/10.1556/066.2016.0003>
- Djukić N.**, Marković S., Mastilović J., Simović P. (2021): Differences in proline accumulation between wheat varieties in response to heat stress. *Botanica Serbica* 45 (1): 61-69 DOI: <https://doi.org/10.2298/BOTSERB2101061D>, ISSN:1821-2158. IF₂₀₂₀ - 0.468 **M23**
- Marković S., Knežević D., Nešović N., **Djukić N.** (2021): Heat-induced accumulation of proline and yield components in genetically divergent cereal varieties. *Genetika* 53 (1): 219-233. <https://doi.org/10.2298/GENSR21018219M> UDC: 575.630. ISSN: 0534-0012. IF - 0.761 **M23**
- Marković S., Knežević D., **Djukić N.** (2020): Effect of genotype and phenological stages on the accumulation rate of dry matter in wheat. *Journal of Animal & Plant Sciences* 44 (2): 7647-7656. <https://doi.org/10.35759/JANmPLSci.v44-2.4>; ISSN: 2071-7024 **M24**

Curriculum vitae

Marković S., Petrović M., **Djukić N.** (2020): Variability of malondialdehyde content and yield elements in *Triticum aestivum* L. under heat stress conditions. *Kragujevac Journal of Science* 42: 45-54. UDC 577.115:58.036:582.542.11; ISSN: 1450-9636 M24

Grčak M., Grčak, D., Penjišević, A., Simjanović, D., Orbović, B., Đukić, N., Rajičić, V. (2020): The trends in maize and wheat production in the Republic of Serbia. *Acta agriculturae Serbica*, 2020, 25, 50, 121-127. ISSN: 0354-9542 M24

Leković S., Marković S., Minić Đ., Todosijević J., Torbica A, **Đukić N.** (2023): β -glucan content variability in seed of barley cultivars. *Kragujevac J. Sci.* 45 111-120. UDC 633.16:581.48:547.458. doi: 10.5937/KgJSci2345111L M24

Book

- Đukić, Nevena H. *Introduction to Enzymology*. Kragujevac: Faculty of Science, 2020. CIP 57715(075.8), ISBN 978-86-6009-075-3. COBISS SR ID 26917385
- Đukić, Nevena H. *Experimental Biochemistry – Practical*. Kragujevac: Faculty of Science, 2013. CIP 577.1 (075.8) (076), ISBN 978-86-6009-023-4. COBISS SR ID 199157260.

Other Activities

- **Head of Doctoral Academic Studies in Biology**: Appointed by Decision No. 290/X-1, June 15, 2022.
- **Reviewer** for international projects of the Ministry of Education, Science and Technological Development of the Republic of Serbia (2021 and 2024).
- **Reviewer** of one textbook, one practical guide, one monograph, and multiple papers for a thematic collection, as well as numerous articles for international journals.
- **Scientific Committee Member** in five International Symposia.
- **Organizer** of the 6th Symposium of the Serbian Proteomics Society (SePA) at the University of Kragujevac.
- **Member of the Organizing Committee** for the 10th Conference of the Serbian Biochemical Society with international participation.
- **Faculty Council Member**: Faculty of Science, University of Kragujevac (2018–2019).
- **Member of the Teaching and Scientific Council**: Faculty of Science, University of Kragujevac (2018–2021).
- **Member of the Quality Assurance Committee**: Faculty of Science, University of Kragujevac (2013–2018).
- **Initiator** of two agreements for business, scientific, and professional cooperation at the Faculty of Science.