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Department for biology and ecology
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EDUCATION

Bachelor's Degree In Biology, Faculty Of Science, University Of Kragujevac

Master's Degree In Biology – Molecular Biology, Faculty Of Science, University Of Kragujevac

Phd In Biology, Faculty Of Science, University Of Kragujevac

ACADEMIC POSITIONS

Junior Researcher - Faculty of Science, University of Kragujevac, 2018-2021

Research Assistant - Faculty of Science, University of Kragujevac, 2021-Current

RESEARCH FIELD

Molecular biology and physiology

SCIENTIFIC FIELDS OF INTEREST

Lipid metabolism, Nutrigenomics, Drug Repurposing in Cancer Therapy, Tumor Markers

PUBLICATIONS

Marković SM, Živančev D, Horvat D, Torbica A, **Jovankić JV**, Djukić NH. Correlation of elongation factor 1A accumulation with photosynthetic pigment content and yield in winter wheat varieties under heat stress conditions. *Plant Physiology and Biochemistry*. 2021; 166:572-581.

Serezlić MK, Hasić R, Ašanin D, Šmit B, Matić SL, Serafinović MĆ, Nikodijević D, **Jovankić J**, Grgurić-Šipka S, Soldatović TV. Heterometallic bridged Pt(II)-Zn(II) complexes: Influence of the substituent in 4'-position in inert terpy ligand on antigenotoxicity, potential antitumor activity and mechanism of interactions of the complexes with biomolecules. *Applied Organometallic Chemistry*. 2024; 38(4), e7413.

Radenković N, Nikodijević D, **Jovankić J**, Blagojević S, Milutinović M. Resistance to 5-fluorouracil: The molecular mechanisms of development in colon cancer cells. *European Journal of Pharmacology*. 2024; 983: 176979.

Jovankić JV, Nikodijević DD, Milutinović MG, Nikezić AG, Kojić VV, Cvetković AM, Cvetković DM. Potential of Orlistat to induce apoptotic and antiangiogenic effects as well as inhibition of fatty acid synthesis in breast cancer cells. *European Journal of Pharmacology*. 2022; 14: 175456.

Blagojević S, Andrić B, **Jovankić J**, Milutinović M, Nikodijević D, Arsenijević P, Cvetković D. MicroRNA expression as a diagnostic parameter in early endometrial cancer. *International journal of gynecological cancer : official journal of the International Gynecological Cancer Society*. 2023; ijgc-2023-004579.

Nikodijević D, **Jovankić J**, Cvetković D, Anđelković M, Nikezić A, Milutinović M. L-amino acid oxidase from snake venom: Biotransformation and induction of apoptosis in human colon cancer cells. *European Journal of Pharmacology*. 2021; 910:174466.

Nikodijević D, **Jovankić J**, Radenković N, Cvetković D, Podolski-Renić A, Milutinović M. Potential of Melittin to induce apoptosis and overcome multidrug resistance in human colon cancer cell line. *Toxin Reviews*, 2024. 43, 2, 224-235.

Cvetković DM, **Jovankić JV**, Milutinović MG, Nikodijević DD, Grbović FJ, Ćirić AR, Topuzović MD, Marković SD. The Anti-Invasive Activity of *Robinia pseudoacacia* L. and *Amorpha fruticosa* L. on breast cancer MDA-MB-231 cell line. *Biologia*. 2019; 74: 915–928.

Cvetković DM, Milošević BZ, Cvetković AM, Ninković SM, **Jovankić JV**, Dalibor V Jovanovic DV, Marković SD. The concentration of matrix metalloproteinase 9 in the tumor and peritumoral tissue as prognostic marker in breast cancer patients. *Vojnosanitetski Pregled: Military Medical and Pharmaceutical Journal of Serbia*. 2019; 76(5): 476–484.

Jovankić JV, Cvetković DM, Milutinović MG, Nikodijević DD, Nikezić AG, Grbović FJ, Vuković NL, Vukić MD, Jakovljević DV, Marković SD. The impact of medicinal plant *Ocimum minimum* L. on fatty acid synthesis process in breast cancer cells. *Biologia*. 2021. M23 ISSN: 0006-3088. IF2020: 1.350

Nikezić AG, Blagojević SZ, Ćupurdija MĐ, Planojević NS, **Jovankić JV**, Rakobradović JD, Vidanović DS, Arsenijević DD, Marković SD. Comparative analysis of human DNA extraction methods and mitochondrial DNA HV1 and HV2 haplogroup determination. *Kragujevac Journal of Science*. 2020; (42): 73-83.

Jovankić JV, Nikodijević DD, Blagojević SZ, Radenković NM, Jakovljević DZ, Grbović FJ, Cvetković DM. The biological activity of *Ocimum minimum* L. flowers on redox status parameters in HCT-116 colorectal carcinoma cells. *Kragujevac Journal of Science*. 2022; 44(2022): 155–168.

CONFERENCE

Jovankić J, Cvetković D, Milutinović M, Nikodijević D, Živanović M, Grbović F, Marković S. Molecular mechanisms of redox status and antitumor activity of extracts of invasive plant species (*Robinia pseudoacacia* and *Amorpha fruticosa*) in MRC-5 and MDA-MB-231 cell lines. Serbian Biochemical Society Sixth Conference "Biochemistry and Interdisciplinarity: Transcending the Limits of field". November 18, 2016, Belgrade; 123-125.

Nikodijević D, Jovanović M, Milutinović M, Cvetković D, Ćupurdija M, **Jovankić J**, Marković S. Effects of the bee products on energy status and relative expression of biotransformation and apoptosis genes in healthy and colon cancer cells. Seventh Conference of Serbian Biochemical Society "Biochemistry of Control in Life and Tehnology", 11 november, 2017, pp. 173-175, Belgrade, Serbia.

Cvetkovic MD, Cvetkovic MA, Milošević ZM, Ninković MS, Milutinović GM, Nikodijević DD, **Jovankić VJ** and Marković DS. The role of molecular mechanisms of neoangiogenesis as tumor markers in the treatment individualization of breast cancer patients. 3rd Congress of the Serbian Association for Cancer Research with international participation "Challenges in anticancer research: translation of knowledge to improve diagnosis and treatment". Belgrade, 6-7th October 2017. page 49-50.

Šeklić D, Glodović V, Stanković M, Jovanović M, **Jovankić J**, Marković S. The effects of newly synthesized platinum (IV) complex and Phelinus linteus extract in co-treatment on the migratory potential and redox status of colon cancer cell lines. Fourth Congress Serbian Society for Mitochondrial and Free Radical Physiology „Challenges in redox biology“ Beograd, 2018, pp. 98. ISBN: 978-86-912893-4-8 (SSMFRP).

Nikezić A, Cvetković D, **Jovankić J**, Marković S. The influence of *Robinia pseudoacacia* L. and *Amorpha fruticosa* L. on relative expression of the genes for apoptosis and biotransformation in normal and breast carcinoma cells. FEBS3+ Conference “From Molecules to Living Systems”, Siófok, Hungary, pp. 67. 2018. ISBN: 978-615-5270-47-5.

Milutinović M, Nikodijević D, Cvetković D, **Jovankić J**, Stanković M, Marković S. Proapoptotic activity of *Gentiana punctata* L. on colorectal cancer cells. 9th Conference of Serbian Biochemical Society “Diversity of Biochemistry”, Belgrade, Serbia. November 14-16. 2019, pp. 135. ISBN: 978-86-7220-101-7 (FOC)

Blagojević S, Planojević N, Nikezić A, Milutinović M, **Jovankić J**, Arsenijević D, Radisavljević S, Međedović M, Petrović B, Arsenijević P, Jović N, Mujković S, Marković S. Impact of gold(III) and ruthenium(II) complexes on miRNA expression involved in metastasis on primary ovarian cell culture isolated from ascites. 10th Conference of Serbian Biochemical Society “Biochemical Insights into Molecular Mechanisms”, Kragujevac, Serbia. September 24. 2021, pp. 52. ISBN 978-86-7220-108-6 (FOC)

Jovankić JV, Nikodijević DD, Milutinović MG, Nikezić AG, Planojević NP, Blagojević SZ, Cvetković DM. Anti-obesity drug Orlistat (Xenical®) induces antiangiogenic potential in breast cancer cell lines. The 5th Congress of the Serbian Association for Cancer Research with international participation „Translational potential of cancer research in Serbia“, Virtual event, December 3, 2021., pp. 53. ISBN: 987-86-919183-3-0

Nikodijević D, **Jovankić J**, Cvetković D, Nikezić A, Blagojević S, Planojević N, Milutinović M. Bee venom and melittin induce apoptosis in colon cancer cell lines by Caspase 8 activation. The 5th Congress of the Serbian Association for Cancer Research with international participation „Translational potential of cancer research in Serbia“, Virtual event, December 3, 2021, P48, page 75. ISBN 978-86-919183-3-0

Blagojević S, **Jovankić J**, Andrić B, Nikodijević D, Milojević S, Arsenijević P, Milutinović M, Cvetković D. Dysregulation in expression of miRNA machinery genes DICER1 and AGO2 in endometrial adenocarcinoma. Serbian Biochemical Society XIII Conference "Amplifying Biochemistry Concepts". September 19-20, 2024, Kragujevac, Serbia; pp. 123. ISBN: 978-86-7220-141-3 (FOC).

Radenković N, Nikodijević D, **Jovankić J**, Blagojević S, Milutinović M. Isorhamnetin activates apoptotic signaling pathways in colon cancer cells. Serbian Biochemical Society XIII Conference "Amplifying Biochemistry Concepts". September 19-20, 2024, Kragujevac, Serbia; pp. 112. ISBN: 978-86-7220-141-3 (FOC).

Radenković N, Nikodijević D, **Jovankić J**, Blagojević S, Nikezić A, Ristanović F, Milutinović M. Mechanisms of resistance development to 5-fluorouracil in HT-29 colorectal cancer cells. 3rd International

Conference "Conference on Advances in Science and Technology" COAST 2024. May 29-June 01, 2024, Herceg Novi, Montenegro; pp. 76. ISBN: 978-9940-611-07-1.

Radenković N, Milutinović M, Nikodijević D, **Jovankić J**, Blagojević S, Jurišić V, Predojević D, Vukajlović F, Pešić S. Silk of Indian meal moth induces apoptosis of SW-480 colorectal cancer cells. Serbian Biochemical Society Twelfth Conference "Biochemistry in Biotechnology". September 21-23, 2023, Belgrade, Serbia; pp. 135. ISBN: 978-86-7220-140-6 (FOC).

Cvetković D, Milutinović M, Nikodijević D, Jovankić J, Filipović N i Marković S. Efekat elektrohemioterapije na ćelijskim linijama karcinoma dojke. Drugi kongres biologa, Kladovo, Srbija, 25-30.09.2018. Knjiga sažetaka, strana 268. ISBN: 978-86-81413-08-1.

Milutinović M, Čurović D, Cvetković D, Nikodijević D, Vukajlović F, Predojević D, **Jovankić J**, Pešić S, Marković S. Svila moljca *Plodia interpunctella* kao potencijalni biomaterijal i citotoksični agens na HCT-116 ćelijama karcinoma kolona. Drugi kongres biologa, Kladovo, Srbija, 25-30.09.2018. Knjiga sažetaka, strana 277. ISBN: 978-86-81413-08-1

Nikodijević DD, **Jovankić JV**, Radenković NM, Cvetković DM, Milutinović MG. Uticaj otrova pčele na redoks ravnotežu u ćelijskim linijama karcinoma debelog creva. Treći Kongres biologa Srbije, 21-25.9.2022., str. 300, Zlatibor, Srbija. M64; ISBN: 978-86-81413-09-8

Jovankić JV, Nikodijević DD, Milutinović MG, Radenković NM, Nikezić AG, Cvetković DM. Citotoksični efekat Simvastatina na MDA-MB-231 ćelijama karcinoma dojke. Treći Kongres biologa Srbije, Zlatibor, Srbija 21-25.9.2022. str. 310. M64; ISBN 978-86-81413-09-8.

Radenković N, Nikodijević D, **Jovankić J**, Blagojević S, Nikezić A, Milutinović M. Impact of isorhamnetin on 5-fluorouracil resistant colon cancer cells. 1st Deep Tech Open Science Day Conference. April 05, 2024, Kragujevac, Serbia; pp. 14. ISBN: 978-86-6335-113-4.

Blagojević S, **Jovankić J**, Andrić B, Milutinović M, Nikodijević D, Milojević S, Radenković N, Arsenijević P, Cvetković D. MIR200A and MIR210 as potential markers in detection of endometrial adenocarcinomas. CoMBoS2 - 2nd Congress of Molecular Biologists of Serbia. October 06-08, 2023, Belgrade, Serbia; pp. 54. ISBN: 978-86-7078-173-3

Radenković N, Nikodijević D, **Jovankić J**, Blagojević S, Milutinović M. Isorhamnetin - Antitumor potential and impact on drug resistance in colorectal carcinoma cell lines. CoMBoS2 - 2nd Congress of Molecular Biologists of Serbia. October 06-08, 2023, Belgrade, Serbia; pp. 145. ISBN: 978-86-7078-173-3.

Jovankić J, Nikodijević D, Milutinović M, Blagojević S, Radenković N, Cvetković D. Imbalance in redox homeostasis induced by Orlistat in breast cancer cells. CoMBoS2 - 2nd Congress of Molecular Biologists of Serbia. October 06-08, 2023, Belgrade, Serbia; pp. 150. ISBN: 978-86-7078-173-3.

Blagojević S, **Jovankić J**, Andrić B, Milutinović M, Nikodijević D, Milojević S, Radenković N, Arsenijević P, Cvetković D. Dijagnostički značaj mikroRNK-126 u ranom stadijumu adenokarcinoma endometrija. Prva konferencija Srpskog biološkog društva "Stevan Jakovljević". September 20-22, 2023, Kragujevac, Srbija; pp.102. ISBN: 978-86-905643-4-7.

Jovankić J, Milutinović M, Blagojević S, Nikodijević D, Radenković N, Cvetković D. Efekat *Ocimum minimum* L. na koncentraciju lipida u MDA-MB-468 ćelijama karcinoma dojke. Prva konferencija Srpskog biološkog društva "Stevan Jakovljević". September 20-22, 2023, Kragujevac, Srbija; pp.103. ISBN: 978-86-905643-4-7.

Jovankić JV, Nikodijević DD, Milutinović MG, Nikezić AG, Planojević NP, Blagojević SZ, Cvetković DM. Anti-obesity drug Orlistat (Xenical®) induces antiangiogenic potential in breast cancer cell lines. The 5th Congress of the Serbian Association for Cancer Research with international participation "Translational potential of cancer research in Serbia". December 03, 2021, Virtual event, Belgrade, Serbia; pp. 53. ISBN: 987-86-919183-3-0.

Nikodijević D, **Jovankić J**, Cvetković D, Nikezić A, Blagojević S, Planojević N, Milutinović M. Bee venom and melittin induce apoptosis in colon cancer cell lines by Caspase 8 activation. The 5th Congress of the Serbian Association for Cancer Research with international participation "Translational potential of cancer research in Serbia". December 03, 2021, Virtual event, Belgrade, Serbia; pp. 75. ISBN: 987-86-919183-3-0.

Blagojević S, Planojević N, Nikezić A, Milutinović M, **Jovankić J**, Arsenijević D, Radisavljević S, Međedović M, Petrović B, Arsenijević P, Jović N, Mujković S, Marković S. Impact of gold(III) and ruthenium(II) complexes on miRNA expression involved in metastasis on primary ovarian cell culture isolated from ascites. 10th Conference of Serbian Biochemical Society "Biochemical Insights into Molecular Mechanisms". September 24, 2021, Kragujevac, Serbia; pp. 52. ISBN: 978-86-7220-108-6 (FOC).

Nikezić A, **Jovankić J**, Nikodijević D, Milutinović M, Blagojević S, Planojević N, Grbović F, Marković S. Anticancer potential of *Alchemilla vulgaris* L. on triple negative breast cancer cell lines. 10th Conference of Serbian Biochemical Society "Biochemical Insights into Molecular Mechanisms", Kragujevac, Serbia. September 24. 2021, pp. 110. ISBN 978-86-7220-108-6 (FOC)

Planojević N, Blagojević S, Nikezić A, Milutinović M, **Jovankić J**, Radenković N, Radisavljević S, Međedović M, Petrović B, Arsenijević P, Jović N, Mujković S, Marković S. The influence of newly synthesized Au(III) and Ru(II) complexes on gene expression on primary ovarian cancer cell culture from ascites. 10th Conference of Serbian Biochemical Society "Biochemical Insights into Molecular Mechanisms", Kragujevac, Serbia. September 24. 2021, pp.128. ISBN 978-86-7220-108-6 (FOC)

Nikezić A, Blagojević S, Planojević N, Čupurdija M, **Jovankić J**, Cvetković D, Veličković T, Simić V, Marković S. Comparative analysis of DNA extraction methods from human buccal swabs and fish tissue samples. 9th Conference of Serbian Biochemical Society "Diversity of Biochemistry", Belgrade, Serbia. November 14-16. 2019, pp. 140. ISBN: 987-86-7220-101-7(FOC)

Čupurdija M, Planojević N, Blagojević S, Nikezić A, **Jovankić J**, Milutinović M, Lazović M, Grbović F, Marković S. Comparative study of different DNA isolation methods from plants and fungi. 9th Conference of Serbian Biochemical Society "Diversity of Biochemistry", Belgrade, Serbia. November 14-16. 2019, pp. 83. ISBN: 978-86-7220-101-7 (FOC)

RESEARCH GRANTS

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- Prediction of disease severity in an experimental rat model of acute pancreatitis funded by the Faculty Of Medical Sciences, University Of Kragujevac, Republic Serbia. Junior Research Project, Grant No. 07/21.

MEMBERSHIPS IN ASSOCIATIONS AND INSTITUTIONAL AFFILIATIONS

- Serbian Biological Society "Stevan Jakovljević" Membership
- Serbian Society for Molecular Biology Membership

DIGITAL SKILLS

- Microsoft Office™ tools / GraphPad Prism / SPSS / Chromas / MEGA / BLAST / Ensemble / CalcuSyn / ImageJ

LANGUAGE SKILLS

- English – B2
- Italian – B2