Aleksandra Pavićević

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EDUCATION

•	 Faculty of Physical Chemistry, PhD studies Field: Biophysical Chemistry Title of the thesis: Application of electron paramagnetic resonance spectroscopy in the study of albumin conformational changes by spin-labeling method GPA: 10/10 	2011-2018
•	 Faculty of Physical Chemistry, MSc in Physical Chemistry Field: Biophysical Chemistry Title of the thesis: Analysis of the fatty acids binding to the albumin from breast cancer patients using electron paramagnetic resonance spectroscopy (EPR) GPA: 10/10 	2010-2011
•	Faculty of Physical Chemistry, BSc in Physical Chemistry Field: Biophysical Chemistry GPA: 9.81/10	2006-2010

WORK EXPERIENCE

• Faculty of Physical Chemistry, Assistant Professor

Courses (practical work):

Physical Chemistry for Chemistry Students Application of Computers in Physical Chemistry Computer Science and Programming 101 Radiation Chemistry and Nuclear Chemistry

Courses (lectures):

Model Systems in Biophysical Chemistry Methods and Methodology of Physicochemical Research 2023-

- Faculty of Physical Chemistry, Teaching Assistant
 - Courses (practical work):Biophysical Chemistry 1Chemical ThermodynamicsPhysical Chemistry for Molecular Biology StudentsComputer Science and Programming 101Application of Computers in Physical ChemistryIntroduction to Laboratory WorkRadiation Chemistry and Nuclear ChemistryPhysical Chemistry for Chemistry Students
- Faculty of Physical Chemistry, Research Assistant
 Project no. 41005, "Biomarkers in neurodegenerative and malignant
 processes", funded by Ministry of Education, Science and Technological
 Development of Republic of Serbia, chief project manager Prof. Pavle
 Andjus
 2013-2014
- Faculty of Physical Chemistry, Research Trainee
 Project no. 41005, "Biomarkers in neurodegenerative and malignant processes", funded by Ministry of Education, Science and Technological Development of Republic of Serbia, chief project manager Prof. Pavle Andjus

COURSES AND SEMINARS

- "3rd FrenchBIC summer school on methods for studying metals in biology (MetBio)", organized by FrenchBIC/CNRS (Marseille, France, October 2nd -6th, 2022).
- **"Training Course on Redox Biology in Health and Disease"**, organized by COST action BM1203 (Alicante, Spain, October 2nd -8th, 2015).
- "7th EFEPR summer school Advanced Electron Paramagnetic Resonance (EPR) Spectroscopy", organized by EFEPR (Berlin, Germany, August 24th -31st, 2015).
- **"Biochemical basis of healthy aging"**, organized by SFRR-Europe, IUBMB and COST actions CM1001, BM1307 and BM1203 (Spetses, Greece, September 22nd -28th, 2014).
- "NERKA 4", Regional Biophysical School, sponsored by IUPAB, and organized by Biophysical Society of Serbia (Belgrade, Serbia, August 30th September 2nd, 2012).

RESEARCH FELLOWSHIPS

- Short-Term Scientific Visit to "Université Paris Cité" in Paris (France), Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques (LCBPT), laboratory headed by Dr Fabienne Peyrot, September 2022.
- Short-Term Scientific Visit to "Palacký University Olomouc" in Olomouc (Czech Republic), "Department of Medical Chemistry and Biochemistry", laboratory headed by Prof. Dr Jan Vacek, October 2021.

- Postdoctoral Fellowship at "Martin-Luther-Universität Halle-Wittenberg" in Halle (Germany), "Institut für Chemie - Physikalische Chemie Komplexe Selbstorganisierende Systeme" headed by Prof. Dr Dariush Hinderberger, September 15th – December 15th, 2019.
- Short-Term Scientific Mission to "Université Paris Descartes" in Paris (France), Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques (LCBPT) headed by Dr Yves-Michel Frapart, funded by COST action BM1203 (EU-ROS), September 2016.

INTERNATIONAL PROJECTS

- COST Actions:
 - BM1203 (EU-ROS) WG Member
 - BM1401 (Raman-Based Applications for Clinical Diagnostics (Raman4clinics)) WG Member
 - CA15126 Between Atom and Cell: Integrating Molecular Biophysics Approaches for Biology and Healthcare (MOBIEU) – WG Member
 - CA18206 Glioma MR Imaging 2.0 MC Member
- ERA.Net RUS+ NanoHyperRadicals, 2019-2021.

AWARDS AND STIPENDS

•	Special acknowledgment for outstanding achievement during studies at the Faculty of Physical Chemistry, University of Belgrade, awarded by the Serbian Chemical Society	2011
•	Stipend granted by Foundation for Young Talents, Ministry of Youth and Sport, Government of the Republic of Serbia	2009-2011
•	Stipend granted by Republic Foundation for the Development of Scientific and Artistic Youth, Ministry of Education, Government of the Republic of Serbia	2008-2009
•	Stipend granted by the Ministry of Education, Government of the Republic of Serbia	2007-2008

RESEARCH FIELD

- EPR spectroscopy and imaging (spin trapping of reactive oxygen and nitrogen species, spin probing and spin labeling of membranes and proteins);
- Application of spectroscopic techniques in biomedicine as biomarkers of neurodegenerative, metabolic and malignant disorders;
- Detection of free radicals and assessment of redox status *in vitro*, *ex vivo* and *in vivo*;
- Protein and membrane biophysics.

LANGUAGE PROFICIENCY

- English (professional level)
- German (intermediate level)
- French (beginner level)
- Spanish (spoken language)

PUBLICATIONS

- V. Grippo, M. Mojovic, A. Pavicevic, M. Kabelac, F. Hubatka, J. Turanek, M. Zatloukalova, B. A. Freeman, J. Vacek, Electrophilic characteristics and aqueous behavior of fatty acid nitroalkenes, *Redox Biol.*, 2021, 38 doi: 10.1016/j.redox.2020.101756
- A.Vesković, Đ. Nakarada, A. Pavićević, B. Prokić, M. Perović, S. Kanazir, A. Popović-Bijelić, M. Mojović, In vivo/Ex Vivo EPR Investigation of the Brain Redox Status and Blood Brain Barrier Integrity in the 5xFAD Mouse Model of Alzheimer's Disease, *Curr. Alzheimer Res.*, 2021, 18, 25-34.

doi: 10.2174/1567205018666210324121156

- M. Zatloukalova, M. Mojovic, A. Pavicevic, M. Kabelac, B. A. Freeman, M. Pekarova, J. Vacek, Redox properties and human serum albumin binding of nitro-oleic acid, *Redox Biol.*, 2019, 24 doi: 10.1016/j.redox.2019.101213
- D. Novak, M. Mojovic, A. Pavicevic, M. Zatloukalova, L. Hernychova, M. Bartosik, J. Vacek, Electrochemistry and electron paramagnetic resonance spectroscopy of cytochrome c and its heme-disrupted analogs, *Bioelectrochem.*, 2018, 119, 136-141. doi: 10.1016/j.bioelechem.2017.09.011
- A. Pavićević, J. Luo, A. Popović-Bijelić, M. Mojović, Maleimido-proxyl as an EPR spin label for the evaluation of conformational changes of albumin, *Eur. Biophys. J.*, 2017, 46(8), 773-787. doi: 10.1007/s00249-017-1257-z
- A. Pavićević, M. Lakočević, M. Popović, A. Popović-Bijelić, M. Daković, M. Mojović, Changes of the peripheral blood mononuclear cells membrane fluidity from type 1 Gaucher disease patients: an electron paramagnetic resonance study, *Biol. Chem.*, 2017, 399(5), 447-452. doi: 10.1515/hsz-2017-0241
- J. Egea, I. Fabregat, Y.M. Frapart, P. Ghezzi, A Görlach, T. Kietzmann, K. Kubaichuk, ..., A. Pavićević, ..., A. Daiber, European contribution to the study of ROS: A summary of the findings and prospects for the future from the COST action BM1203 (EU-ROS), *Redox Biol.*, 2017, 13, 94-162.

doi: 10.1016/j.redox.2017.05.007

- S. Stamenković, A. Pavićević, M. Mojović, A. Popović-Bijelić, V. Selaković, P. Andjus, G. Bačić, In vivo EPR pharmacokinetic evaluation of the redox status and the blood brain barrier permeability in the SOD1G93A ALS rat model, *Free Radic. Biol. Med.*, 2017, 108, 258-269. doi: 10.1016/j.freeradbiomed.2017.03.034
- 9. G. G. Bačić, **A. Pavićević**, F. Peyrot, In vivo evaluation of different alterations of redox status by studying pharmacokinetics of nitroxides using magnetic resonance techniques, *Redox Biol.*, 2016, 8, 226-242.

doi: 10.1016/j.redox.2015.10.007

 M. Pešić, A. Podolski-Renić, S. Stojković, B. Matović, D. Zmejkoski, V. Kojić, G. Bogdanović, A. Pavićević, M. Mojović, A. Savić, I. Milenković, A. Kalauzi, K. Radotić Anti-cancer effects of cerium oxide nanoparticles and its intracellular redox activity, *Chem.-Biol. Interact.*, 2015, 232, 85–93.

doi: 10.1016/j.cbi.2015.03.013

11. A. G. Savic, R. Guidetti, A. Turi, A. Pavicevic, I. Giovannini, L. Rebecchi, M. Mojovic, Superoxide Anion Radical Production in the Tardigrade Paramacrobiotus richtersi, the First Electron Paramagnetic Resonance Spin-Trapping Study, *Physiol. Biochem. Zool.*, 2015, 88, 451– 454.

doi: 10.1086/681031

12. A. Pavićević, A. Popović-Bijelić, M. Mojović, S. Šušnjar, G. Bačić, Binding of Doxyl Stearic Spin Labels to Human Serum Albumin: An EPR Study, *J. Phys. Chem. B*, 2014, 118(37), 10898-10905.

doi: 10.1021/jp5068928

 A. Pavićević, S. Glumac, J. Sopta, A. Popović-Bijelić, M. Mojović, G. Bačić, Raman microspectroscopy as a biomarking tool for in vitro diagnosis of cancer: a feasibility study, *Croat. Med. J.*, 2012, 53, 551-557. doi: 10.3325/cmj.2012.53.551

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