Project proposal title (up to 200 characters): HEMOGLOBIN-BASED SPECTROSCOPY AND NONLINEAR IMAGING OF ERYTHROCYTES AND THEIR MEMBRANES AS EMERGING DIAGNOSTIC TOOL
Acronym (up to 20 characters): HEMMAGINERO

Name, father's/mother's name and family name: Danica Zoran Pavlović
Principal Investigator (PI) or Participant: Participant
Contact e-mail, phone and web page: danica.pavlovic@ipb.ac.rs, +381641093623, http://www.ipb.ac.rs/
Username in the base of researches of the Ministry responsible for scientific research: danica.pavlovic@ipb.ac.rs
Name and address of the Scientific institution during the implementation of the Project and Scientific institution contact person: Institute of Physics Belgrade, University of Belgrade, Pregrevica 118, Zemun, Belgrade, Serbia, contact: Aleksandar Bogojević, PhD, Director

BIOGRAPHY

- **Date and place of birth**: 10/04/1990, Belgrade, Serbia
- **Age:** 29
- **Citizenship:** Serbian
- **Research field and area/areas**: Biophysics (biophotonics, biomedicine, biomimetics, biomaterials), Entomology, Ecology
- **Education**:
  - November 2014 – April 2019 Ph. D. in Biology (module Entomology, Biophotonics)
    University of Belgrade, Serbia, Faculty of Biology, Ph. D. Thesis title: "Photonic characterization of cuticular structures of selected species of Coleoptera and Lepidoptera" (defended 30th April 2019), average grade 9.82 out of 10
  - October 2013 – September 2014 M. Sc. in Ecology
    University of Belgrade, Serbia, Faculty of Biology, M. Sc. Thesis title: "Antioxidant activity and the content of phenols and flavonoids in extracts of *Salvia officinalis* L. populations from Serbia and Montenegro" (defended 29th September 2014), average grade 9.90 out of 10
  - November 2009 – June 2013 B.Sc in Biology
    University of Belgrade, Serbia, Faculty of Biology, average grade 9.31 out of 10

- **Name, family name and title of the Ph.D. thesis supervisor**
  Dr Srećko Ćurčić, Professor, University of Belgrade, Faculty of Biology
  Dr Dejan Pantelić, Research Professor, University of Belgrade, Institute of Physics Belgrade
- **Dates of appointments (researcher and scientific titles, i.e., equivalent titles in higher education)**
  - 18th July 2017 Research Assistant
  - 1th January 2015 Research Trainee
- **Employment history (institutions and to/from dates up to the day of the proposal submission)**
  - 01/01/2015-current Research Assistant
    Photonics Center, Institute of Physics Belgrade, University of Belgrade, Serbia
- **List of selected publications (up to five most important publications in the research field of the Project)**
  - Vrbica, M., Petrović, A., Pantelić, D., Krmpot, A.J., Rabasović, M.D., **Pavlović, D.**, Jovanić, S., Guéorguiev, B., Goranov, S., Vesović, N., Antić, D., Marković Đ., Petković M., Stanisavljević Lj. & Ćurčić, S. (2017). The genus Pheggomisetes Knirsch, 1923 (Coleoptera: Carabidae Trechinae) in Serbia: taxonomy, morphology and molecular phylogeny. *Zoological Journal of the Linnean Society*,183(2), 347-371. DOI: 10.1093/zoolinnean/zlx078 ($M21_a$, IF = 2,711, 2016; ISSN 0024-4082)
  - **Pavlović, D**., Vasiljević, D., Salatić, B., Lazović, V., Dikić, G., Tomić, L., Ćurčić, S., Milovanović, P., Todorović, D. & Pantelić, D.V. (2018). Photonic structures improve radiative heat exchange of *Rosalia alpina* (Coleoptera: Cerambycidae). *Journal of Thermal biology*, 76, 126-138. DOI: 10.1016/j.jtherbio.2018.07.014 (M21, IF=2,157, 2016, ISSN 0306-4565)
  - Pantelić, D., Savić-Šević, S., Stojanović, D.V, Ćurčić, S., Krmpot, A.J., Rabasović, M., **Pavlović, D**., Lazović, V. & Milošević, V. (2017). Scattering-enhanced absorption and interference produce a golden wing color of the burnished brass moth, *Diachrysia chrysitis*. *Physical Review E, 95*(3-1), 032405. DOI: 10.1103/PhysRevE.95.032405 (M21, IF=2,366, 2016, ISSN 2470-0045)
  - **Pavlović, D.,** Petković, B., Ćurčić, S., Todorović, D., Vesović, N., Pantelić, D. & Perić-Mataruga, V. (2016). Increased motor activity of the beetle *Laemostenus punctatus* caused by a static magnetic field of 110 mT. *Entomologia Experimentalis et Applicata*, 160(2), 188-194. DOI: 10.1111/eea.12470 (M21, IF=1,616, 2014, ISSN 0013-8703)
  - **Pavlović, D.,** Pantelić, D., Krmpot, A., Rabasović, M., Lazović, V., Vrbica, M. & Ćurčić, S. (2017). Nonlinear microscopy as a novel method for studying insect morphology. The Sixth International School

and Conference on Photonics & COST actions: MP1406 and MP1402 & H2020-MSCA-RISE-2015 CARDIALLY workshop. Belgrade, Serbia, 28 August-1 September. Book of Abstracts, p. 113, ISBN 978-86-82441-46-5

- **Citation number:** 7 (excluding self-citations), h index=2 (according to Scopus)

- **Project history**:
  Ongoing projects
  - "Generation and characterization of nano-photonic structures in biomedicine and informatics ", (Project participant), Ministry of Education, Science and Technological development of Republic of Serbia, No. III45016
  - "Mimetics of insects for sensing and security", Science and technology development programme-Joint funding of development and research projects of the Republic of Serbia and the People's Republic of China, from 2018
  - "Study of biological micro- and nano-structures in the visible, infrared and terahertz range", Bilateral project Germany-Serbia, financial support from DAAD and Ministry of education, science and technological development of the Republic of Serbia, from 2018
  - "Brillouin Light Scattering Microspectroscopy for Biological and Biomedical Research and Applications", COST action CA16124, from 2017

  Ceased projects (selected)
  - "Upscaling Teslagram® technology based on variable and complex biological structures for security printing" (Principal Investigator), Serbian Innovation fund project , 2017-2018

- **Awards, prizes, etc.**

  - 2019 Philip Moris and Serbian foundation "Run for science (Pokreni se za nauku)" grant for the young scientists for realization of the research project "Minimally invasive, selective ablation of dental caries with femtosecond laser"
  - 2018 Biophysical Society grant for 7th Regional Biophysics School " Academician Radoslav K. Andjus" (NERKA) in Kotor, Montenegro, 2018
  - 2018 JINR University Center scholarship for „International school on Nuclear Methods for Environmental and Life Sciences" in Bečići, Montenegro, 2018
  - Coimbra Laser Lab and LaserLab Europe scholarship for „Training School on Laser Applications for Biology and Biomolecular Systems" in Coimbra, Portugal, 2017

- **Reviewing scientific journals and grants**
  - Reviewer for scientific journal PeerJ — the Journal of Life and Environmental Sciences

- **International scientific collaboration and mobility**
  - Deutsches Elektronen- Synchrotron – DESY, A Research Centre of the Helmholtz Association, Hamburg, Germany (2018, 2019), contact details: rui.pan@desy.de

- **Link to the Public RIS page (istrazivaci.gov.rs) and to another database of researchers if available**
  https://scholar.google.com/citations?user=f65vSx0AAAAJ&hl=sr&oi=ao
  https://www.scopus.com/authid/detail.uri?authorId=57190757737
  https://www.researchgate.net/profile/Danica_Pavlovic3