1. Name of the centre / laboratory / office / team

LABORATORY FOR BIOMEDICAL RESEARCH
Department of Biomedical Sciences

2. Key words (for browsing on on-line catalogue)

Please provide as far as possible key words which best describe activities, research fields, expertize, trainings, projects within the centre / laboratory / office / team

Biomedicine, oxidative stress, nitric oxide, cell lines

3. Please describe the main goals and activities within the centre / laboratory / office / team

The Laboratory for Biomedical Research is engaged in scientific research in the field of testing the role of oxidative/antioxidative metabolism in the pathophysiological basis of the disease, cell proliferation and migration.

The aim of the Laboratory for Biomedical Research is to contribute to the improvement of existing and development of new knowledge in the biomedical science field through the scientific research and education, with the continuous improvement of researchers capacity, scientific methods and techniques, establishment of international scientific cooperation and that contribute to the integration of the State University of Novi Pazar in European scientific research area.

4. Please describe the most important results achieved within the centre / laboratory / office / team

- Education of students Master and PhD studies of Biology in application of scientific-research methods.
- Implemented more than 20 experimental research within the Master studies of Biology
- Realization of 4 experimental research within the PhD studies of Biology
- Implemented 5 service researches for the examination of the cytotoxicity

5. Please describe key personnel within your team

Names, short CV, up to five the most important references

Prof. Dr. Nataša Đorđević
She finished PhD 2010 in the field of Animal and Human Physiology and Molecular Biology at the Faculty of Sciences, University of Kragujevac, where she worked from 2006 to 2012. She has been working since 2012 at the State University of Novi Pazar, where was promoted 2017 in an associate professor for the scientific field of Biology. Since 2012 she has been included in the work and development of the Laboratory for Biomedical Research. Her field of scientific research is in the area of oxidative stress and redox homeostasis.

- Novakovic T, Dolicanin Z, Djordjevic N. Oxidative stress biomarkers in amniotic fluid of pregnant women with hypothyroidism. The Journal of Maternal-Fetal & Neonatal Medicine. doi:

10.1080/14767058.2017.1400005.

- Djordjevic NZ, Paunović MG, Peulić AS. Anxiety-like behavioural effects of extremely low-frequency electromagnetic field in rats. Environ Sci Pollut Res Int. 2017;24(27):21693-21699.
- Babic GM, Markovic SD, Varjacic M, Djordjevic NZ, Nikolic T, Stojic I, Jakovljevic V. Estradiol decreases blood pressure in association with redox regulation in preeclampsia. Clin Exp Hypertens. 2017, doi: 10.1080/10641963.2017.1368538.
- Djordjević NZ, Babić GM, Marković SD, Ognjanović BI, Štajn AŠ, Žikić RV, Saičić ZS. The antioxidative effect of estradiol therapy on erythrocytes in women with preeclampsia. Reproductive Toxicology. 2010;29(2):231-236.
- Djordjević NZ, Babić GM, Marković SD, Ognjanović BI, Štajn AŠ, Žikić RV, Saičić ZS. Oxidative stress and changes in antioxidative defense system in erythrocytes of preeclampsia in women. Reproductive Toxicology. 2008;25(2):213-218.

Prof. Dr. Zana Dolićanin

She finished master's degree 2005 in the field of Pathophysiology at the Faculty of Medicine, University of Pristina. She specialized in Ophthalmology at the Faculty of Medicine, University of Niš 2010, where finished PhD 2009 in the field of Pathophysiology. From 2001 to 2010 she worked at the Medical Faculty of the University of Pristina with headquarters in Kosovska Mitrovica. Since 2010 she has been working at the State University of Novi Pazar, where she was promoted in an associate professor 2014, and since 2016 she is the Head of the Department of Biomedical Sciences. Since 2011 she has been included in the work and development of the Laboratory for Biomedical Research. Her field of scientific research is in the area of pathophysiology.

- Novakovic T, Dolicanin Z, Djordjevic N. Oxidative stress biomarkers in amniotic fluid of pregnant women with hypothyroidism. The Journal of Maternal-Fetal & Neonatal Medicine. doi: 10.1080/14767058.2017.1400005.
- Nurković J, Zaletel I, Nurković S, Hajrović Š, Mustafić F, Isma J, Jurišić Škevin A, Grbović V, Kovačević Filipović M, Dolićanin Z. Combined effects of electromagnetic field and low-level laser increase proliferation and alter the morphology of human adipose tissue-derived mesenchymal stem cells. Lasers in Medical Science. 2017;32:151-160.
- Nurkovic J, Dolicanin Z, Mustafic F, Mujanovic R, Memic M, Grbovic V, Jurisic Skevin A, Nurkovic S. Mesenchymal stem cells in regenerative rehabilitation. Journal of Physical Therapy Science 2016;28(6):1943-1948.
- Dolicanin Z, Bogdanovic D, Lazarevic K. Changes in stroke mortality trends and premature mortality due to stroke in Serbia 1992-2013. Int journal of public health, 2016;61:131-137.
- Stefanovic V, Cukuranovic R, Dolicanin Z, Cukuranovic J, Stojnev S, Bogdanovic D, Kocic G. Placental growth factor and placental protein 13 in patient with Balcan endemic nephropathy, a worldwide disease. Ren Fail. 2015;37:1145-1148.

6. Please give the list of the most important projects within your centre / laboratory / office / team

International projects (FP7, CIP, TEMPUS, ERASMUS, LLL, COST, EUREKA, etc.) and national projects

In the Laboratory for Biomedical Research, scientific research is perform within the national project of the Ministry of Education, Science and Technological Development of the Republic of Serbia:

- Molecular and physiological biomonitoring of aerobic organisms based on the determination of biochemical biomarkers of oxidative stress, No. 173041.

7. Please give the list of the most important prototypes/products/services including also concepts, strategies, methodologies

Laboratory for Biomedical Research provides services to other researchers in the field of cytotoxicity testing of potentially biologically active newly synthesized chemical compounds and plant extracts.

8. Please give a list of the most important patents or other research valorization means (up to 10)

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9. Please describe the most important resources, equipment, software and test facilities which can be shared with other SMEs or research teams (figures, illustrations, links on web sites for video materials, photos, animations and contact details are welcome)

- UV/VIS Spectrophotometer, Shimadzu UV-1800
- Microplate reader, RT-6100, Raito
- Vertical laminar chamber Faster BIO48-M / flowfast V with accompanying equipment
- CO_2 incubator CB53, 53l, Binder with accompanying equipment
- Inverted microscope KSDS-3 with camera, Optica
- Optical microscope BA 200, Motic
- Universal 320R centrifuge, Hettich
- Table autoclave 2540MKA, Tuttnauer
- Lab dancer, Ika Werke

10. Are there some commercial services (e.g. consulting, training seminars) offered at your centre / laboratory / office / team? If yes, please describe which services and for which targeted groups.

No

11. Contact person (head, team leader etc.) of the centre / laboratory / office / team (name, address, tel., fax, e-mail, URL)

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natasadj@np.ac.rs
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