

# Faculty of Biology University of Belgrade

## The Centre for Laser Microscopy

### Scientific field (Frascati Manual)

Behavioural sciences biology

Other biological topics

Neurosciences (including psychophysiology)

### Brief description of expertise

Confocal microscopy on cell cultures and tissue samples. Cellular electrophysiology. Epifluorescence of ion markers in cells. MRI of small animals (in collaboration). Animal and cell models of neurodegenerative diseases. The role of extracellular matrix in the plasticity of the central nervous system.

### Keywords

neurodegenerative diseases, amyotrophic lateral sclerosis, cerebral ischemia, extracellular matrix, inflammation, oxidative stress, intracellular calcium, confocal microscope, patch clamp, neural cell cultures

### Commercial services

Imaging on a Confocal Microscope (biological and other fluorescently labeled samples). Osmotic measurements of liquid samples.

### Realized and current projects

#### A) NATIONAL PROJECTS

Title	Project ID	Funding source	Duration
"Biophysical neuroprofiling on experimental models of CNS damage and recovery."	143054B	Ministry of Science and Environmental Protection, RS	2006-2010
"Biomarkers in neurodegenerative and malignant processes."	III41005	Ministry of Education, Science and Technology, RS	2011-2015

#### B) INTERNATIONAL PROJECTS

Title	Project ID	Funding source	Duration
«Neural regeneration and plasticity"	B31	COST-ESF	2005-2009

Title	Project ID	Funding source	Duration
"Centre of Excellence" grant		Psysiological Society (UK)	2006-2008
"Reinforcing a center for laser microscopy and cell profiling for regional networking - NEUROIMAGE"	026400	EC FP6	2006-2009
"The role of the endosomes in the excitotoxic neuronal injury - importance for the pathogenesis of amyotrophic lateral sclerosis."		Bilateral Croatia-Serbia	2008-2010
"The state of mitochondria in the pyramidal cells of hippocampus after an ischemic episode"		Bilateral-SANU- Academy of Sciences Ukraine	2008-2012
"Molecular Imaging on cells from the animal model of amyotrophic lateral sclerosis"		Bilateral Hungary-Serbia	2010-2011
«Brain Extracellular Matrix in Health and Disease (ECMNet)"	BM1001	COST-ESF	2010-2014
EU-ROS	BM 1203	COST-ESF	2012-2016
"Neuroimmunology of ALS – a biophysical approach"		Bilateral France-Serbia	2007-2009

[Industry group \(according to "Gazette RS", No. 54/10\)](#)

Research and experimental development on natural sciences and engineering

[Staff list within the unit](#)

Name	Last name	Teaching/scientific title
Pavle	Andjus	Full professor
Lidija	Radenović	Full professor
Milena	Milošević	assistant professor
Danijela	Bataveljić	research associate

Name	Last name	Teaching/scientific title
Vera	Stamenković	research assistant
Stefan	Stamenković	research assistant
Miloš	Jovanović	research assistant
Andrej	Korenić	research assistant
Mina	Perić	yunior researcher
Dunja	Bijelić	yunior researcher
Dušica	Kočović	yunior researcher