



AREA

**ADVANCING RESEARCH IN AGRICULTURAL AND FOOD SCIENCES
AT FACULTY OF AGRICULTURE, UNIVERSITY OF BELGRADE**



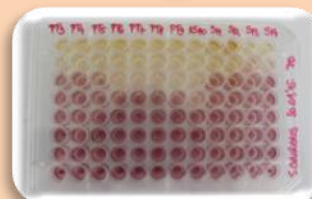
**AREA group *FOODBIOTECH*
FOOD BIOTECHNOLOGY GROUP**

Field: INDUSTRIAL MICROBIOLOGY

APPLIED MICROBIOLOGY, INDUSTRIAL AND MEDICAL FUNGI, BIOTECHNOLOGY, BIOCHEMISTRY, BACTERIOLOGY

Research and commercial expertise

- ✿ Research in the field of applied mycology- cultivation of edible, industrial and medicinal mushrooms- the processing and use. Growing mushrooms enriched with selenium.
- ✿ Experiments- Extraction of the bioactive compounds from mushrooms found in nature and growth mushrooms with selenium; Qualitative and quantitative chemical analysis of samples.
- ✿ Studying the biological activity of mushrooms: Determination of the antioxidant properties of the mushroom extracts and cytotoxicity of the mushroom extracts.
- ✿ Determination of the antimicrobial properties of the mushroom extracts. Electron microscopy analysis.
- ✿ Quantification of selenium and other elements in enriched mushrooms and mushroom extracts.
- ✿ Enzymatic modification of the mushroom extracts.
- ✿ Getting new potential products based on mushrooms.



Equipment, techniques, methods and analyses

- ✿ Climate chamber and shaker with cooling- Mushroom growing on a solid and a liquid substrate.
- ✿ Rotary vacuum evaporator, freeze-dryer, centrifuge with cooling- Preparation of mushroom extracts.
- ✿ UV-VIS spectrophotometer- Antioxidant activity testing and chemical composition analysis.
- ✿ Microplate reader, microplate washer- Determination of the antimicrobial properties of the extracts.
- ✿ Laminar flow chambers, incubator with CO₂, microscope- Determination of antimicrobial activity, separation of biomass and growth curve studying, cytotoxicity testing.

Contact - Team leader

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