

Laboratory for Investigation of Natural Resources of Pharmacologically and Biologically Active Compounds (LAFIB)

natural products; medicinal plants; chemical characterisation; biological activity

LAFIB's main research directions are:

1. Isolation and chemical characterization of biomolecules from medicinal and edible plants, spices, plant extracts, commercial phytopreparations, essential oils and other products;
2. Determination of biological and pharmacological activities of biomolecules from medicinal and edible plants, spices, plant extracts, commercial phytopreparations, essential oils and other products.

Research conducted at LAFIB is of both fundamental and applied nature. Fundamental research is related to plant chemotaxonomy and the influence of various ecological factors on plant chemical composition. Also, fundamental research includes mechanistic studies of the role of plant biomolecules in complex biochemical pathways in animal cells, such as oxidative stress defence, inflammation, cancerogenesis. Applied research is focused on the possible utilization of plant biomolecules, plant extracts and phytopreparations in pharmaceutical, food and cosmetic industries.

Thanks to successful participation in many national and international projects, LAFIB obtained the state-of-the-art laboratory equipment which is the basis for conducting the high quality scientific research.

SELECTED EQUIPMENT

- High-performance liquid chromatograph with DAD detector (Agilent Technologies 1100 Series);
- High-performance liquid chromatograph Agilent Technologies 1200 Series coupled with DAD detector and 6410 TripleQuad mass detector with electrospray ion source (ESI);
- Centrifugal partition chromatography system (Waters semi-preparative liquid chromatograph, coupled with Kromaton centrifuge);
- Multiskan Spectrum microplate reader (Thermo Scientific);
- Cell culture lab.



COLLABORATIONS

- Biological Research Center of Hungarian Academy of Sciences, Szeged, Hungary;
- University of Regensburg, Institute of Pharmacy, Department of Pharmaceutical Biology, Regensburg, Germany;
- Prince of Songkla University, Faculty of Sciences, Hat Yai, Thailand.

CONTACT PERSON

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SELECTED PROJECTS

Title: *Biologically active natural products as potential sources of new drugs and dietary supplements*, project number: OI 172058

Type: Fundamental Project financed by Ministry of Education, Science and Technological Development of the Republic of Serbia

Duration: 2011-2019

Contact person:
Prof. Neda Mimica-Dukić

Title: *Biologically active components and medicinal potential of functional foods grown in Vojvodina*, 114-451-2149/2016-03

Type: Research project financed by Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina, Serbia

Duration: 2016-2019

Contact person:
Prof. Neda Mimica-Dukić

