

DSFS RESEARCH LINES (updated July 2025)

N.	Research area	Research topics	no. of researchers	SSD	ERC sector	notes
1	Anatomy	Neuroanatomy; neuroscience; neuropeptides; neural stem cells; cancers; identification of new therapeutic targets for cancer treatment; molecular mechanisms involved in neurodegenerative disease.	1	BIOS-12/A	LS1_4, LS1_9, LS4_1, LS4_12, LS5	
2	Biochemistry	Biochemical mechanisms of different physio-pathological conditions; <i>in vitro</i> and <i>in vivo</i> models; evaluation of molecular mechanisms of natural and synthetic compounds; cancer	4	BIOS-07/A	LS1, LS3, LS4, LS5, LS9	
3	Clinical biochemistry & Clinical Molecular Biology	Biomarkers of Oxidative stress and Inflammation on in-vitro and in-vivo models of chronic non-communicable diseases; Integrative Oncology; Epigenetic Biomarkers in Cancer; Nutraceuticals	1	BIOS-09/A	LS2, LS3, LS4, LS9	
4	General chemistry	Molecular architecture and structure; Theoretical and computational chemistry; Liquids and Solids structure; Characterization methods of materials; Photochemistry; New materials: oxide, alloys, composite organic-inorganic hybrid, nanoparticles; Intelligent materials – self assembled materials; Supramolecular chemistry	6	CHEM-03/A	PE3_1, PE3_4 PE4_4, PE4_5 PE4_11, PE4_13 PE4_15 PE5_1, PE5_6 PE5_8, PE5_12 PE5_16, PE5_19	
5	Computer Science	Scientific computing, simulation and modelling tools; Bioinformatics; Biological systems analysis, modelling and simulation	3	INFO-01/A	LS2_10, LS2_11, LS2_14, PE6_12, PE6_13	

6	Medicinal chemistry	Drug design, synthesis and discovery; Computer chemistry; Analytical chemistry	12	CHEM-07/A	PE5_18, PE6_12, PE6_13, PE4_13, PE1_18, LS2_12, LS2_13, LS7_4	
7	Microbiology	Research, development and application of plant-derived antimicrobial substances. Mechanisms of pathogenicity and antibiotic-resistance. Innovative solutions through drug delivery systems	2	MEDS-03/A	LS7	
8	Organic chemistry	Synthetic Organic Chemistry; Supramolecular Chemistry; Computational Chemistry; Drug design and Molecular modelling	5	CHEM-05/A	PE4_12, PE4_13 PE5_16, PE5_17 LS7_3	
9	Pharmaceutical biology	Plant extracts, natural compounds and their biological activities in cancer, metabolic/neurological disorders and oxidative stress	2	BIOS-01/D	LS3_1, LS4_5, LA4_6, LS7_3, LS9_5	
10	Pharmaceutical technology / Drug delivery	Advanced Drug Delivery; Nanomedicine Biopharmaceutics; Cosmetic formulations; Nutraceuticals; Physico-chemical analysis; Calorimetry	8	CHEM-08/A	LS7_1, LS7_3, PE5	
11	Pharmacology/ Toxicology	Neuropharmacology; Pharmacognosy; Pharmacology, drug discovery and design, drug therapy in depression, chronic pain and Alzheimer's disease; Toxicology	6	BIOS-11/A	LS5_3 LS7_3 LS7_5	
12	Physical chemistry	Physical chemistry of biological systems Computational chemistry	1	CHEM-02/A	PE4_11, PE4_12 PE4_13	
13	Physiology	Neurophysiology Neurobiology	2	BIOS-06/A	LS5, LS7	

14	Synthetic & Systems biology	Systems biology; synthetic biology; development & pattern formation in animals; molecular and cellular neuroscience; ex vivo modelling	1	BIOS-10/A	LS2, LS3, LS5, LS9	
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