DSFS RESEARCH LINES (updated May, 2022)						
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	BIO/16	LS1_4, LS1_9, LS4_1, LS4_12, LS5	
2	Biochemistry	Biochemical mechanisms of different physio-pathological conditions; *in vitro* and *in vivo* models; evaluation of molecular mechanisms of natural and synthetic compounds; cancer	6	BIO/10	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	BIO/12	LS2, LS3, LS4, LS9_6	
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	CHIM/03	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	INF/01	LS2_10, LS2_11, LS2_14, PE6_12, PE6_13	

6	**Medicinal chemistry**	**Drug design, synthesis and discovery; Computer chemistry; Analytical chemistry**	**13**	**CHIM/08**	**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**	**1**	**MED/07**	**LS7**	
8	**Organic chemistry**	**Synthetic Organic Chemistry; Supramolecular Chemistry; Computational Chemistry; Drug design and Molecular modelling**	**5**	**CHIM/06**	**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**	**BIO/15**	**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**	**9**	**CHIM/09**	**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**	**BIO/14**	**LS5_3 LS7_3 LS7_5**	
12	**Physical chemistry**	**Physical chemistry of biological systems Computational chemistry**	**1**	**CHIM/02**	**PE4_11, PE4_12 PE4_13**	
13	**Physiology**	**Neurophysiology Neurobiology**	**2**	**BIO/09**	**LS5, LS7**	

14	**Synthetic & Systems biology**	**Systems biology; synthetic biology; development & pattern formation in animals; molecular and cellular neuroscience; ex vivo modelling**	**1**	**BIO/13**	**LS2, LS3, LS5, LS9**	