



RESEARCH LINES (2022-2023)

Department of Pharmaceutical Technology and Chemistry

- Nanotechnology and drug delivery systems
- Design and development of lipidic and polymeric nanoparticles for gene delivery
- Nanomedicines and vaccines (NANO-VAC)
- Biopharmaceutics and Pharmacokinetics
- Search of New Natural Compounds for Therapeutic Use.
- Pharmacometrics & Systems Pharmacology
- Physiological Based Pharmacokinetic Modelling
- Design and preclinical development of novel organoselenium compounds as bioactive agents (SECALE)

Department of Pharmacology and Toxicology

- Safety evaluation of new drugs
- Risk factors for Alzheimer's disease
- Epigenetics of depression
- Toxic effects of nanoparticles
- Toxicological evaluation of food contaminants
- Technical development of in vitro and in vivo genotoxicity tests

Department of Microbiology

- Immunoadjuvants (vaccination; immunotherapy).

Department of Nutrition, Food Science and Physiology

- Obesity, Inflammation, Nutrigenetics, Diet.
- Nutriepigenomics and methylepigenome.
- Vegetable Food.
- Coffee, Heat-treated foods, Antioxidant capacity
- Food composition, Lipid oxidation, Functional meat products, Bioaccessibility of bioactive compounds.
- Nutritional intervention, Mediterranean Diet, Energy-restricted diet, lifestyle modifications, Obesity, Metabolic syndrome, Non-alcoholic fatty liver disease (NAFLD)
- Hypoxia, obesity, adipose tissue/cells, cell culture, QPCR, Western blot
- Membrane transporters, Intestinal absorption, GLUT12, Caco-2 cells
- Children obesity, Mediterranean diet and Telomeres.
- Adipocytes/fat cells and microRNAs.
- Omega-3 and inflammation

University Clinic of Navarra-CIMA

- Radiopharmacy Unit and PET Laboratory
- PET/SPECT molecular imaging in small animals for drug development
- Molecular *Biology* in *Pediatric* Bone Sarcomas
- Molecular and cellular neurobiology and neuropharmacology.
- Cancer Immunotherapy