

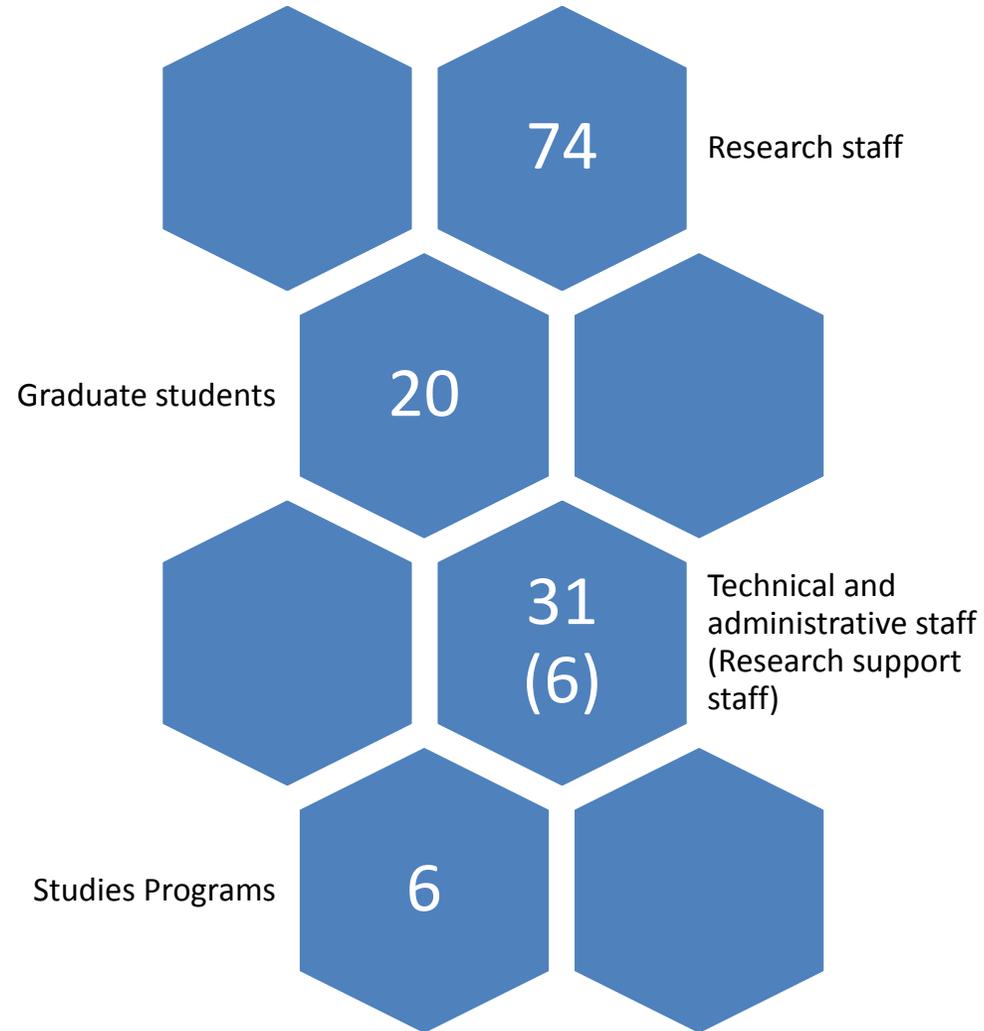
DEPARTMENT PHARMACY



COMMITTED TO
EXCELLENCE IN
PHARMACY



DEPARTMENT AT A GLANCE



RESEARCH AREAS

Area 1

Design, chemical synthesis and optimization of novel molecules as potential therapeutic/diagnostic/theranostic agents

Area 2

Pharmaceutical technology: design, development and characterization of pharmaceutical forms and polymeric excipients

Area 3

Identification of drug targets, mechanisms of action, and pharmacodynamic/pharmacokinetic profiles of synthetic or natural entities. Physio-pathological mechanisms in cells and animal models



RESEARCH PROJECTS



Development of bioactive compounds:

- Computer-aided drug design and optimization of synthetic procedures by regio- and stereo-selective methodologies for the synthesis of new small molecules/saccharides/glycoconjugates as drug candidate and/or diagnostics for widespread pathologies
- Development of chemical technologies for eco-friendly synthesis/extraction of bioactive compounds



Pharmacological and nutraceutical evaluation of synthetic and natural entities for the treatment of:

- Cardiovascular pathologies
- Cancers
- Respiratory diseases



Biochemical and molecular signals in cancer and neurodegenerative diseases:

- Study of the intracellular pathways of cell death, survival and differentiation;
- Investigation of pathological mechanisms in cells
- Identification of new pharmacological targets and biological markers



Applied pharmaceutical technology:

- Development of polymeric nanoparticles, liposomes or hydrogel based pharmaceutical forms for ocular, oral and dermatological drug delivery
- Development, characterization and application of synthetic or natural derived polymeric excipients
- Development of nutraceuticals and cosmetics



RESEARCH IMPACT

Industrial technological innovation and economic growth by exploitation of the patented research. Field of application: pharmaceutical, nutraceutical and cosmetic industry.

- Consultancy and technical assistance for private companies in chemical, technological and pharmacological fields: **117 projects** (2013-2018)
- Institutional funded grants: **73 projects** (2013-2018)

Educational/dissemination actions based on social media and press action: improved citizen awareness on perspectives and progress in the biomedical research, performed at the department.

