



Prof. Dr. Anna Rita BILIA is full professor leading the group of pharmaceutical technology, pharmaceutical biology and analytical phytochemistry, at the Natural Products lab (Phytolab) located at the Department of Chemistry UGO Schiff of the University of Florence. Research topics can be summarized as follows: 1- Improvement of the biopharmaceutical and technological properties of plant extracts and natural products by conventional and innovative formulations. Design and development of formulations using micro- and nanocarriers such as liposomes and vesicles, micelles, supramolecular complexes with cyclodextrins, micro- and nanoparticles. Characterisation of the formulations by conventional methods (HPLC, DSC, UV, light scattering, dissolution tests) and innovative ones such as NMR (ROESY and DOSY).

2- Studies of pharmaceutical and technological aspects of herbal drugs, herbal drug preparations and herbal medicinal products. Improvement of their biopharmaceutical properties by the use of conventional and innovative formulations.

3-Authentication, quality control and stability testing by using conventional and also not conventional methods such as 1D- and 2D- NMR, NIR, and biosensors

Other highlights: She is Director of the Post-graduate School of Hospital Pharmacy.

In 1995 she got the national award "Claudio Redaelli" for outstanding young researchers in the field of phytochemistry and in 2002 she got the international "Egon Stahl Medal" for researchers younger than 40 years, working in natural products. In 2018 she got the Qihuang International Prize from the China Association of Chinese Medicine for her outstanding achievements in the field of analysis and innovative formulations of extracts and natural products from Chinese medicine. She is leading the group of natural products analysis and pharmaceutical technology at the Department of Chemistry. She is the president of Interdepartmental Center of Services for Biotechnologies of Agrarian, Chemical, Industrial interest (CIBIACI). She is expert of the European Pharmacopoeia and member of the TCM group. She is former president of the International Society for Medicinal Plant and Natural Product Research (GA). She is the Italian delegate of the board of directors, member of the scientific committee and vice chair of the European Scientific Cooperation on Phytotherapy (ESCOP). She is former president of the Italian Society of Phytochemistry and Sciences of Plants for Medicinal, Food and Cosmetic use (SIF). Participant of the European Project Horizon 2020-ES-MSCA "ETHNOHERBS", of the European Erasmus+_KA2 "HEALTHYHERBS" project, of PNRR project PE12 Neurosciences and neuropharmacology: "A multiscale integrated approach to the study of the nervous system in health and disease" (MNESYS) Spoke S6 of PNRR project CN3 Development of gene therapy and drugs with RNA technology Spoke 5. Component of the management committee COST Action "Medicinal plants for animal health care: Translating tradition into modern veterinary medicine" (CA22109, MedPlants4Vet) MedPlants4Vet. Prof. Bilia's list of publications shows more than 260 papers in the most reputed international journals of her field of research, she is authors of numerous invited book monographs and chapters.

Lecture: "Strategies to increase stability and bioavailability of natural products"