Universidad de Alcalá

DRUG FORMULATION AND BIODISPONIBILITY

TECHNOLOGY OFFER

Code

BIO_UAH_34

Application areas

- Biological Sciences
- Other indistrial technologies

Type of collaboration

- Manufacturing agreement
- Comercial agreement
- Service agreement

Main researches

Prof. Ma Ángeles Peña Fernández

CONTACT

OTRI Universidad de Alcalá
Escuela Politécnica Superior
Campus Científico-Tecnológico
28805, Alcalá de Henares
(Madrid)
(+34) 91 885 45 61
otriuah@uah.es

@otriuah

OTRI Universidad de Alcalá

ABSTRACT

This consolidated research group frames its research activity in the design, development, elaboration, control and evaluation of immediate or modified-release drugs, which has allowed new galenic developments and an optimization of existing drug formulations, or betting for galenic innovations.
The group has worked on numerous projects and maintains regular collaborations with companies in the pharmaceutical sector, which allows it to focus its research in a practical way and bring the results obtained closer to the market.
Our main lines of research focus on expanding the knowledge of the properties of drugs in relation to their polarity that allow us to find solutions to problems of solubility in liquid formulations, development of models and predictive theories of solubility, promotion of vectorization strategies to increase bioavailability, advance in the characterization of the drug release and/or absorption processes from the medicine that contains them and the evaluation of the pharmacokinetic profile after its administration to the organism, advance in the physical-chemical-drug-excipient characterization, development of rational criteria beneficial in drug formulation by predicting the release of active ingredients from polymer matrices, providing criteria that facilitate the prediction of drug release based on physical- chemical characteristics, polarity and degree of interaction with the polymer, saving in this way time and effort in the design of release systems.

ADVANTAGES AND INNOVATIONS

- Technical advice and consulting on drug formulation and development, scaling and manufacturing of pilot batches, quality control, stability studies, and manufacturing to third parties.
- Preformulation studies.
- Galenic design and development of innovative, generic and brand name (OTC) drugs.
- Galenic design and development of new forms of administration.
- Compatibility studies of active ingredients and excipients.
- Design of manufacturing processes.
- Expert reports.
- Patent study.

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