



UNIVERSITY: University of Navarre (UNAV)

WIT PROGRAMME'S RESEARCH LINE NAME: Health

DOCTORAL PROGRAMME: Doctoral program on medicines and health
<https://en.unav.edu/web/doctoral-program-in-medicines-and-health>

COMPLETE DESCRIPTION OF THE LINE

Research activity: Nanotherapy and biomaterials

The research of Prof. Blanco-Prieto's group lay in the field of biomaterials and advanced drug carrier systems including the design and the development of polymer and lipid based micro- and nanoscale carriers, their biological evaluation in *in vitro* cell cultures (toxicity, mechanism of action, intracellular drug release) and also their pharmacokinetic and dynamic impact *in vivo* (using relevant animal models of the diseases). These micro and nanosystems are prepared using non-toxic, biocompatible and biodegradable biomaterials. Research carried out in this field is mainly applied to cancer, infectious, cardiovascular and neurodegenerative diseases. The main objectives are to target the molecules to their site of action (i.e. cancer cells), to decrease the toxicity of anticancer drugs, to improve the oral absorption of poorly absorbed drugs, to protect fragile molecules like cytokines (for cardiac tissue regeneration) or neurotrophic factors (for brain tissue regeneration) from degradation in the



body and to achieve a controlled and sustained release of the entrapped molecules over the time.

RESEARCH GROUP NAME: Nanomedicines and Drug Delivery

COORDINATOR:

- Last and first name: Blanco-Prieto, María J.
- Link to the “Portal of scientific production”:

https://www.researchgate.net/profile/Maria_Blanco-Prieto

<https://www.linkedin.com/in/maria-blanco-prieto-223a281b/>

https://scholar.google.com/citations?hl=es&user=--dT-tEAAAAJ&view_op=list_works

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MEMBERS OF THE LINE RESEARCH:

- María J. Blanco-Prieto
- Elisa Garbayo Atienza
- Pablo Vicente Torres Ortega
- Souhaila El Moukhtari
- Ruben del Campo
- Paula Gil Cabrerizo



ANOTHER RESEARCH LINES OF THE GROUP:

Other research lines:

- Nanomedicine in pediatric cancer
- Regenerative medicine
- Drug delivery systems for therapeutic proteins
- Theragnostic for cancer

- Entities involved in research lines and contact person:

- ✓ Academic entities:

Université Paris-Sud, UMR CNRS 8612 – Institut Galien Paris-Sud, Paris, France

Université Catholique de Louvain (UCL), Brussels, Belgium

University of Lisbon, Lisboa, Portugal

University of Texas, USA

Université de Genève, Genève, Switzerland

University of Utrecht, The Netherlands

Universidad of Barcelona, Spain

Universidad de Zaragoza, Spain

Universidad del País Vasco, Spain

- Joint supervision of doctoral thesis with international universities or non academic institutions:

Université de Versailles (France)

Université of Paris-Sud (France)



- Group review

The group of Nanomedicines and drug delivery is a consolidated and international team with extended experience in the design, development and in vitro and in vivo evaluation of nanomedicine and drug delivery systems for developing effective therapies in regenerative medicine and cancer, with worldwide collaborations. The group is integrated by 12 persons: Senior group leader (Prof. Blanco-Prieto), 1 assistant professor, 2 PhD students, 2 Master students, 1 lab technician and 4 Erasmus Students.

The group leader is the author of more than 160 research papers and book chapters with more than 7.600 cites (H-index 50), 4 editorials, 5 patents and over 200 communications at scientific conferences, many of them as invited speaker. She is/was responsible of more than 31 competitive research projects and Dr. Blanco-Prieto is an expert for the European Commission for nanomedicines.

She is the vice-president of the Executive Committee of the European Federation of Pharmaceutical Scientists (EUFEPS) and the President of SEFIG (The Spanish Society of Pharmaceutics and Pharmaceutical Technology).

- Link of the group to the “Portal of scientific production”

<https://www.unav.edu/web/grupo-investigadores/nanomedicines-and-drug-delivery>

- Pictures, links... to academic or industrial partners (if any)

