

Nuria Genicio Bouza

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Academic data

2005 Master Degree pre-Bologna in Biochemistry, University of Salamanca (**Degree pre-Bologna in Chemistry**, University of Santiago de Compostela)

Experience

Currently: *International Iberian Nanotechnology Laboratory (INL)*, Braga (Portugal)

Position: **Research Fellow**

- Duties related to laboratory management, technical support and hands-on support within different projects at the Department of Life Sciences

May 2016-October 2018: *Center of Molecular and Environmental Biology (CBMA)*, University of Minho, Braga (Portugal)

Position: **Research Technician**

- FCT grant, UMINHO/BTI/6/2016, associated to the project UID/BIA/04050 (POCI-01-0145-FEDER-007569) "Management of space and equipment, acquisition of goods and services, stocks control, management of websites, management of Biological Collections and Hygiene and Security"
 - Duties related to laboratory management, technical support for students and researchers, control and maintenance of supplies and chemicals, and waste management of the waste in the labs.
 - Flow cytometer responsible: training students in its use and following-up initial experiments with the equipment.

July 2013-December 2014: *Institute of Ophthalmology*, University College London (UCL), London (UK)

Position: **Research Assistant**

- Project titled "Quantum dots for the use in diagnosis and treatment of Acanthamoeba Keratitis", grant from Special Trustees Moorfields Eye Hospital awarded for 12 months:
 - Axenic culture of a variety of Acanthamoeba strains and the process of transformation of xenic into axenic cultures (Category 2 Laboratory)
 - Development of an Acanthamoeba infection in a pig eye model and its detection using mainly Confocal Microscopy and Flow Cytometry
 - Some experience with the Phage Display technique

July 2012-July 2013: *Institute of Ophthalmology*, University College London (UCL), London (UK)

Position: **Research Technician**

- Project titled "Developing of novel methods of identifying and tracking limbal epithelial stem cells (LESCs) in vivo and in vitro", Special Trustees Moorfields Eye Hospital:
 - Isolation and culture of corneal limbal epithelial stem cells from cornea tissues also culture of cell lines such as NIH/3T3 mouse fibroblasts and HCET human corneal epithelial cells
 - Development of different methods to label and image in vitro corneal epithelial cells by mainly Confocal Microscopy, but also Flow cytometry and Multiplate reader

September 2007-December 2011: *Center for Cooperative Research in Biomaterials (CICbiomaGUNE)*, San Sebastian (Spain)

Position: **Laboratory Research Technician**

- Funded by Ciber-bbn (consortium of Biomaterials, Bioengineering and Biomedicine centers) 2007-2010
- Funded by the Spanish Ministry of Science and Innovation (Project Plan Nacional I+D+I del Ministerio de Ciencia e Innovación) 2010-2011:

- Use of several equipment such as Flow Cytometry, Fluorescence Microscopy (Confocal and epifluorescence), Fluorimeter, UV spectrophotometer, Multiplate reader
- Culture of a variety of cell lines: Human cervix endotelial cells (C33-A), Burkitt's lymphoma cells (Raji cells), rat glioma cells (C-6), mouse astrocytes (C-8), murine glyoma (GL-261), Human Leukaemia monocytes (THP-1), human osteosarcoma (MG-63), human breast carcinoma (MCF-7), human liver carcinoma (Hep-G2).
- Cytotoxicity assays (MTT/MTS) and cell internalization assays with a variety of nanoparticles (metallic and magnetic nanoparticles and quantum dots). Also direct and indirect immunofluorescence staining
- Isolation by both, Ficoll gradient centrifugation and plastic adhesion, of several blood cell populations (Peripheral Blood Mononuclear Cells PBMCs, red blood cells RBCs and monocytes) from blood obtained from the Basque Centre for transfusions and human tissues). Differentiation of macrophages and dendritic cells from blood monocytes with cytokines or macrophages from THP-1 monocytes with PMA in vitro cultures
- Some experience with techniques like ELISA, western blot, and also enzymatic hydrolysis (with cathepsin B and α -mannosidase)
- Preparation of cell phantom for MRI

August 2006-August 2007: Grupo Leche Pascual, Aranda de Duero-Burgos (Spain)

Position: **Research Assistant in R&D Department**

- Grant from the ADE Castilla y Leon Foundation: "Development of new products based on ingredients from egg". Research on the production and utility of peptides with antimicrobial properties:
 - Enzymatic digestions (trypsin, chymotrypsin, pepsin) of egg proteins (ovoalbumin, lysozyme), also milk and soy proteins. Fermentation of egg, milk and soy using the lactic acid bacteria group (LAB, Lactobacillus termophilus, bulgaricus, lactococcus lacti)

June 2006-July 2006: SAINT GOBAIN Vicasa, Burgos (Spain)

Position: **Quality Control Assistant**

- Analysis of a variety of physical properties of glass bottles such as weight, internal pressure and cold treatment

Summer 2004: Aquagest, Palencia (Spain)

Position: **Quality Control Assistant**

- Quality control of drinkable water and wastes and residual water (EDAR y ETAP)

Extraacademic data

- 2017: **Certificate in German: A1**, BabeliUM, Braga (Portugal)
- 2016: **Certificate in Portugues: B2/B2+**, BabeliUM, Braga (Portugal)
- 2016: **Implementation of Quality Management System according to NP EN ISO 9001:2015**, 14h, XZ consultores, Braga
- 2016: **Approach to Quality Management System (ISO 9001:2015)**, e-learning course, XZ consultores, Braga
- 2015: **Fundamentals in Genetics, Development and Neoplasia** postgraduate course, ICVS, Braga
- 2015: **Laboratory Animal Science Category c**, Felasa accreditation, IBMC, Porto
- 2015: **Cambridge English: First Certificate (FCE)**
- 2011: **Atherothrombosis: thrombosis and vascular permeability** (at the IIS Fundación Jiménez Díaz, 11 hours, Madrid)
- 2010: **Fire prevention and extinction** (at CICbiomaGUNE, 8h, San Sebastián-Spain)
- 2008: **Factory Conversation English** (at CEI Formation School and and Factory Consultancy, S.L, 60 hours, San Sebastián-Spain)
- 2007: **English** (at Caja Círculo Languages School, Aranda de Duero-Burgos-Spain)

Publications

- **Magnetic glyconanoparticles as a versatile platform for selective immunolabelling and imaging of cells**, Garcia I., Gallo J., Genicio N., Padro D., Penades S., **Bioconjugate. Chem.**, 2011 22, 264-273

- **Specific labelling of cell populations in whole blood with targeted *immuno*-fluorescent magnetic glyconanoparticles**, Gallo J., Genicio N., Garcia I., Padro D., Penadés S., **Biomaterials** 2011 32 9818-9825
- **Uptake and intracellular fate of fluorescent-magnetic-glyconanoparticles**, Gallo J, Genicio N., Penadés S, **Advanced Healthcare Materials** 2012 1 302-307
- **Sugar/Gadolinium-loaded gold nanoparticles for labelling and imaging cells by magnetic resonance imaging**, Ainhoa Irure, Marco Marradi, Blanca Arnaiz, Nuria Genicio, Daniel Padro and Soledad Penades, **Biomaterials Science** 2013 1 658
- **CdTe-based QDs: Preparation, Cytotoxicity and Tumor Cell Death by targeting Transferrin Receptor**, Juan Gallo, Isabel Garcia, Nuria Genicio and Soledad Penades, **Particle and Particles Systems Characterization** 2014 31 126-133
- **Quantum dot labelling and tracking of cultured limbal epithelial cell transplants in-vitro**, Genicio N., Gallo J. Shortt A.J, **IOVS** 2015 56 3051-3059
- **Targeted gold-coated iron oxide nanoparticles for CD163 detection in atherosclerosis by MRI**, Tarín C, Carril M, Martín-Ventura JL, Markuerkiaga I, Padró D, Moreno JA, García I, Genicio N, Plaza S, Blanco-Colio LM, Penadés S, Egidio J., **Sci Rep.** 2015 Nov 30;5:17135
- **Latent capability of Biofunctionalized-Heavy Metal Free Quantum dots for tracking of transplanted limbal epithelial stem cells in the cornea**, Genicio N., Gallo J., Dziasko M., Shortt A.J, in preparation

Conference proceedings

Genicio Nuria, Gallo Juan, Dziasko Marc, Long Nicholas J., Shortt Alex J., “Biofunctionalized heavy metal free quantum dots (HMF-QDs) as a tool for tracking transplanted limbal epithelial cells”, ARVO 2014, 2nd-4th May Orlando 2014
Monica Carril, Carlos Tarin, Irati Markuerkiaga, Jose Luis Martín-Ventura, Daniel Padro, Jose Antonio Moreno, Isabel García, Nuria Genicio, Luis Miguel Blanco-Colio, Jesus Egidio, Soledad Penades, “CD163-Targeted Gold-Coated Iron Oxide Nanoparticles for *in vivo* MRI Imaging of Atherosclerosis”, **WMIC2013**, 18-21th September Savannah 2013
Gallo J., Garcia I., Genicio N., Padro D., Penadés S., “Core@shell fluorescent magnetic *glyco*-ferrites as specific targeted contrast agents for magnetic resonance imaging”, **TNT2010**, 6-10th September Braga 2010

Languages

English: high

Spanish/Galician: mother tongue

Portugues: high

Computing

Computing Course (2003)
(Windows, Word, Excel, Power Point)

Other data

Driving licence and own vehicle
Shortt term job as Shop Assistant and Room maid