HORIZON 2020

PARTNER SEARCH FORM

Area:	MARIE SKŁODOWSKA-CURIE ACTIONs
Call:	INNOVATIVE TRAINING NETWORKS (ITN) H2020-MSCA-ITN-2014: European Training Network scheme
Deadline:	9th April 2014

INFORMATION OF ORGANISATION	
Name of organisation	Fundación IMDEA NANOCIENCIA
Short description of organization (main research activities)	The Fundación IMDEA Nanociencia (IMDEA Nanociencia) is a multidisciplinary research institution (www.nanoscience.imdea.org) focused on frontier science and technology at the nanoscale. Despite its brief history, IMDEA Nanoscience has established itself as a competitive center in the area of nanoscience at international level. Currently IMDEA researchers coordinate several FP7 projects (Large Scale, Small and medium scale, Marie Curie Training Networks, ERC Starting Grants) and participate in various other international funded projects.
Project Proposal Scope and Objectives	The aim of the proposal is to develop and validate nanotechnology against cancer establishing a suitable procedure for reaching preclinical stage. The consortium will offer suitable framework for a training network while performing interdisciplinary research activities related to the development of novel and minimally-invasive platforms based on magnetic nanoparticles (MNP) to improve the breast cancer detection and elimination. Multifunctionalised magnetic nanoparticles (MF-MNP) will be designed to selectively target breast cancer tissues. Simultaneously, MF-MNP will be used as functional contrast agents, nanocarriers, and heating inductors providing a combined theragnostic modality in a single platform.
Expertise offered	The consortium is willing to synthesize MNP aggregates with improved and preserved magnetic properties. The MNP aggregates will be decorated with different anticancer agents and specific ligands for selective targeting. Immunotoxicology response of MF-MNP will be assessed in vitro and in vivo prior biodistribution studies. The local anticancer and specific imaging activity of MF-MNP (including magnetic heating) will be assessed in xenografts animal models (mice).
Target partners' expertise sought	We are looking for SMEs to take part as full partners of a ETN project. The SME's expertise should lie in one of the following areas: 1) Immunotoxicology studies (in vitro and in vivo), 2) Microfluidic devices for magnetic trapping (mediated by functionalized magnetic nanoparticles) of cancer (stem) cells, proteins,etc. 3) arrays for assessing drug resistance
Other partners in the consortium already identified (with their countries)	CSIC (ES), King's College London (UK), Karolinksa Institute (SE), Trinity College Dublin (IE), University Hospital of Jena (DE), University of Manchester (UK), Pharma Mar SA (ES)

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