ESR Project Information Sheet

Project title	Development of ex-vivo models for smart screening of novel colloidal ocular formulations
Reference number	ORBITAL_ESR_2019_Project 13
Host Company	NANOVECTOR srl
Academic institute of registration	UNIVERSITY OF PARMA
Supervisor(s)	P. Gasco, S. Pescina, L. Fitzhenry, A. Gonzales Paredes, G. Carracedo
Research Group	R&D Nanovector srl
Department / School	UNIPR – Department of Pharmacy
Duration	36 month employment contract provided and ESR enrolled on 3 year structured PhD ESR will be required to self-fund after the initial 36 months
Status: Full-time / part-time	Full time
Funding information	Funding agency: H2020-MSCA-ITN-2018
Early Stage Researcher Allowances:	Living allowance: €40,966.56 p/y + mobility allowance of €7,200 p/y + family allowance where applicable (**all values before tax and social security payments**) Fees: As by Italian Laws on research job contract
Closing date and time	5 p.m. (CET) Friday 28th June, 2019
Commencement date	2nd September 2019

Post summary

The topical treatment of eye diseases shows great advantages such as ease of administration, good patient compliance and cost effectiveness, but it still has drawbacks in great loss of drug and low bioavailability in deeper ocular tissues. Nanomedicine has great potential for the improvement of ocular administration: size of carriers and their surface characteristics are crucial parameters that impact on drug release and diffusion across and into ocular barriers. In this context, rapid and affordable methodologies to characterize how formulations perform in contact with ocular tissues are strongly needed. Regardless the ocular target site, availability of validated ex-vivo models is essential: in fact, models help formulations screening by identifying those characteristics that are responsible for an effective drug delivery.

Project aims at design and development of novel lipid based nanocarriers, particularly micro and nanoemulsions and nanoparticles, that can enhance drug penetration across ocular barriers: candidate will carry on both colloidal formulation research and full set up and assessment of newly developed ex-vivo animal models, to screen and characterize obtained formulations

Research activities will be held in both Torino (Italy) and Parma (Italy) location , most of the time is planned in Torino

Standard duties and responsibilities of the ESR

For the 36 months of employment contract the ESR will be required to work exclusively on the MSCA programme.

In all cases, all duties and responsibilities will be clearly outlined in the researchers Personal Career Development Plan, as determined in the early stages of the project between the ESR and their supervisory committee.

Person specification

Qualifications

Essential

Applicants should hold or expect to attain, as a minimum a 2:1 Honours degree, or equivalent, in Pharmacy, Industrial Pharmacy, Materials Science, Biomedical Science, Organic Chemistry or related area.

Knowledge & Experience

Essential

- Research project carried out in one of the above disciplines
- A demonstrated knowledge of at least three of the following: pharmaceutical formulation development, drug delivery, nanotechnology, analytical chemistry, lipid chemistry, cell culture/molecular biology, nanoscale surface interaction

Skills & Competencies

Essential

- Applicants whose first language is not English must submit evidence of competency in English
- Evidence of interest, attitude and research experience in the above disciplines

Further information

For any informal queries, please contact Paolo Gasco preferably by email at paolo.gasco@nanovector.it , or alternatively by phone at +390112258921

For queries relating to the application and admission process please contact Dr Laurence Fitzhenry at orbital@wit.ie or by telephone at +353 (0)51 302624.

Website: www.orbital-itn.eu

The Institute may decide to interview only those applicants who appear from the information available, to be the most suitable, in terms of experience, qualifications and other requirements of the position.

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