ESR 14 Project Information Sheet

Project Title	*Nano-structured vehicles for optimized RNA delivery*
Reference number	BIOMOLMACS_ESR_14
Host Institution/Company	Imperial College London
Supervisor(s)	Prof. Robin Shattock
Research Group	Mucosal Infection and Immunity
Department/School	Department of Infectious Disease
Duration	36-months full-time employment contract provided and ESR enrolled on 4- year structured PhD. ESR may be required to self-fund after the initial 36 months for successful completion of the PhD program at the Imperial College London.
Funding information	Funding agency: H2020-MSCA-ITN-2019 (Proposal no:859416)
Early Stage Researcher Salary and Allowances	Living allowance: ***approximately*** £40,000/year + mobility allowance of €7,200/year + family allowance where applicable (**all values before tax and social security payments**) This calculation is to give you an idea about the level of funding. The actual salaries can be found on the official job application link below.
Pre-application closing date	28th of February 2020
Official application closing date	15th of March 2020
Start date	1st of April 2020 or as soon as thereafter
Official job application link*	TBC

**The pre-application form should be submitted to biomolmacs@gmail.com by latest 28th of February 2020. Following the initial eligibility assessment, the applicants will be requested to submit their applications using the links provided specific to each institution/company.*

Post Summary
Brief description of the project:
We have developed a self-amplifying RNA platform for efficient reprogramming of target cells. We will specifically design a library of nano-structured formulations to optimize the stability, uptake, location and duration of RNA expression. We will determine whether next-generation molecular machines can create a gate in the cell membranes to provide effective delivery of RNA biotherapeutics to specific cells and tissues in vitro and in vivo. This approach has potential to provide a highly cost-effective strategy for the clinical delivery of next generation RNA based vaccines and biotherapeutics.

Further information on the research interests of Prof. Robin Shattock can be found on their website.
https://www.imperial.ac.uk/people/r.shattock

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 ITN programme (BIOMOLMACS). 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 Chemistry, Materials Science, Analytical Chemistry, Organic Chemistry, Biomedical Science, Polymer Chemistry, Pharmaceutics or related area.

Knowledge and Experience
Essential
- Research project carried out in at least one of the above disciplines.
- A demonstrated knowledge of at least three of the following: pharmaceutical formulation development, drug delivery, cell culture/molecular biology, nanotechnology, polymerisation techniques.

Desirable
Work placement undertaken in an industry related to the above disciplines

Skills and Competencies
Essential
- Applicants whose first language is not English must submit evidence of competency in English, please see Imperial College London's English Language Requirements for details.
- Evidence of interest, aptitude and research experience in the above disciplines.

Further information
For any informal queries, please contact Prof. Robin Shattock by email at r.shattock@imperial.ac.uk

For queries relating to the application and admission process please contact
Dr Gokhan Yilmaz at biomolmacs@gmail.com
Website: www.biomolmacs.com