**Marie Skłodowska-Curie European Fellowships**

**2020 call Expression of Interest**

Deadline: 31st May 2020

Personal details

|  |  |
| --- | --- |
| Full name |  |
| Current position |  |
| Current Organisation |  |
| Email address |  |
| Title of PhD thesis |  |
| Your PhD award date |  |
| Have you lived, worked or studied in the UK for 12 months or more since August 2017? |  |

Proposed research

|  |  |
| --- | --- |
| Title | *<your proposed research title>* |
| Topic | *<see list of available topics overleaf>* |
| *< brief outline of your proposal> (maximum 300 words)* | |

Please attach your full CV and send your Expression of Interest to [evolution@qmul.ac.uk](mailto:evolution@qmul.ac.uk) by midnight (UK time) on Sunday, 31st May 2020.

We will inform successful candidates by Friday 5th June.

**Centre for Endocrinology**

• Role of cancer stem cell in CNS tumours

• Genetic changes in pituitary adenomas

• Regulation of adrenal function and metabolism

• Exploring skin development, regeneration and diseases

• Cell stress and molecular chaperones in neuronal and endocrine diseases

• Redox sensing and control in adrenal and gonadal steroidogenesis

**Centre for Biochemical Pharmacology**

• Understanding the role of inflammation during pregnancy

• Bioengineering 3D in vitro models to study chronic inflammation

• Investigating why chronic inflammatory diseases fail to resolve

• Developing an arthritic joint on a chip

• Development of layer-by-layer microcapsules for delivery of therapeutics

• Development of disease responsive promoters for application in gene therapy

• Using machine learning to correlate mass spectrometric and genomic data to establish disease mechanisms in chronic inflammatory disorders

• Understanding the cellular and immunological mechanisms elicited by pro-resolving mediators in infections

• Determining the mechanisms that regulate enzyme activity and lipid mediator biosynthesis

**Centre for Clinical Pharmacology**

• AI for precision medicine biomarker discovery in immune-mediated inflammatory diseases

**Centre for Microvascular Research**

• Myocardial regeneration and repair

• The control of endothelial junctions by intracellular trafficking

• Immunomodulatory roles of organotypic and disease-associated endothelial cells

• Lymph node stromal reprogramming: A Focus on Metabolism, Cytokines, and Inflammation

• Elucidating the role of exosomal miRNAs in the progression of heart failure

• The role of syndecans in inflammation and angiogenesis

• The pathophysiology of atypical chemokine receptors

• Mechanisms in neutrophil extravasation

**Centre for Translational Medicine & Therapeutics**

• Roles of C-type natriuretic peptide in cardiovascular health and disease

• The role of Bruton Tyrosine kinase (BTK) in ischaemia-reperfusion injury and shock

• Immunotransmitters to define acute and chronic inflammation

• Impact of metabolic ageing in neurodegeration

**Centre for Advanced CV Imaging**

• Artificial intelligence applications in Cardiac Magnetic Resonance and Cardiac CT

• Radiomics in cardiac imaging – towards personalised medicine

• Economic evaluations in cardiac imaging

**Centre for CV Medicine & Devices**

• Translational stem cell therapy for cardiovascular disease

• The non-canonical pathway for NO: mechanisms and therapeutics

• Sex differences in cardiovascular disease

• The microbiome and cardiovascular disease

• AI approach to coronary plaque characterisation from intracoronary imaging

• Non-invasive imaging technology for physiologic assessment of coronary artery disease

• Renal handling of nitrate and nitrite

• Effect of diabetes on nitrite-derived NO production

• Proteomics based druggable target discovery in cardiovascular diseases

• Role of intracellular chloride channels in vascular pathobiology

• Platelet dysfunction in pulmonary hypertension

• Endothelial cell metabolism in vascular homeostasis

• Role of endothelial mitochondria in the haemodynamic shear stress response

• Mitochondrial metabolism and function in angiogenesis