

# MRC Confidence in Concept (CiC) University of Manchester Allocation 2017

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## Appendix: Previously-funded projects

### Projects funded in Round 4 of UoM Confidence in Concept program

#### **Dr Brian Bigger (FMHS)**

Validation of hematopoietic stem cell gene therapy for Mucopolysaccharidosis IIIB in human CD34+ stem cells

#### **Dr Herve Boutin (FMHS)**

Imaging of synaptic density in neurodegenerative conditions using PET-MR

#### **Prof Silvia Bulfone-Paus (FMHS)**

Mast cell activation assay – a robust and novel tool to diagnose clinical food allergy

#### **Prof Garth Cooper (FMHS)**

Elevated Copper in Human Diabetic Nephropathy: A New Therapeutic Target?

#### **Prof Peter Gardner (FEPS)**

Infrared Spectral Pathology on Glass Slides

#### **Dr Meghna Jani (FMHS)**

Development of a predictive tool for subsequent biologic response and adverse events in rheumatoid arthritis patients treated with TNF- $\alpha$  inhibitors

#### **Dr Lucy Kershaw (FMHS)**

Advanced characterisation of tumour hypoxia using PET-MRI to personalise radiotherapy for cervical cancer patient

#### **Prof Harm van Marwijk (FMHS)**

Kinectin frailty

#### **Dr Adam J Reid (FMHS)**

Advanced nerve guidance conduits for peripheral nerve repair

#### **Prof Chris Taylor (FMHS)**

Bringing quantitative nailfold capillaroscopy into the clinic

**Prof Kaye Williams (FMHS)**

Novel dual chemokine receptor inhibitors targeting endometrial cancer spread

**Projects funded in Round 3 of UoM Confidence in Concept program**

**Paul Brenchley (FMHS)**

Anti-PLA2R immunoadsorption therapy for membranous nephropathy patients

**Tony Day (FLS)**

A novel therapeutic for OA: generation of new IP

**Jeremy Derrick (FLS)**

Adaptation of a virus-like particle platform for high throughput vaccine antigen selection

**Rebecca Elliott (FMHS)**

Cognitive biomarkers for drug development: evidence for psychopharmacological modulation of a novel test battery

**James Fildes (FMHS)**

Increasing donor heart availability for transplantation using ex-vivo perfusion

**Alex Gerhard and Sarah Skeoch (FMHS)**

In vivo characterization of the inflammatory component of carotid plaques using PET/ CT and PET/MR in order to develop non-invasive prognostic imaging markers for stroke

**Judith Hoyland (FMHS)**

The use of a semi-autologous structural bone graft to improve the clinical outcome of revision hip arthroplasty

**Ian Kimber (FLS) and Chris Griffiths (FMHS)**

Inhibition of epidermal Langerhans cell (LC) migration with soft drugs (SD) as a novel therapeutic strategy for the treatment of psoriasis

**Forbes Manson (FMHS)**

Repositioning of urea cycle disorder drug for inherited retinal disease

**Andrea Murray (FMHS)**

Pilot investigation of polarisation sensitive optical coherence tomography as a non-invasive measure of skin fibrosis

**Josephine Naish (FMHS)**

MRI-based Diffusion Orientation Complexity (DOC) A Non-Invasive Novel Biomarker of cardiac fibrosis and heart failure

**Stephen Richardson (FMHS)**

A novel regenerative therapy for IVD degeneration and treatment of low back pain

**Paul Townsend (FMHS)**

Enriching biomarker identification – earlier diagnosis of Prostate Cancer

**Michael Turner (FEPS)**

Automated prognostic cellular pattern recognition in pathology using multicoloured Lumisphere biolabels & multispectral microscopy

## **Projects funded in Round 2 of UoM Confidence in Concept program**

**Prof. Cay Kielty (FLS)**

Developing cell/gene therapies for heritable fibrillinopathies

**Prof. Sonja Kotz (FMHS)**

Towards a mobile health device for day-to-day monitoring of Parkinson's disease

**Prof. Christopher Miller (FMHS)**

To develop a novel treatment for hypertrophic cardiomyopathy

**Prof. Jo Neill (FMHS)**

New target identification for neurodevelopmental disorders through development of a neuro immune animal model

**Prof. Ariane Herrick (FMHS)**

Development of novel topical therapies for Raynaud's phenomenon

**Prof. Rob Lucas (FLS)**

Gene therapy to restore vision in retinal dystrophies

**Dr Shane McKie (FMHS)**

Improved drug discovery in psychiatry using arterial spin labeling based quantitative pharmacological magnetic resonance imaging

**Dr Harmesh Aojula, (FMHS)**

Accelerating the early phase development of a new therapeutic for the treatment of small cell Lung cancer (SCLC)

**Dr David Gilham (FMHS)**

Chimeric Antigen Receptor (CAR) T-Cell Therapy for Ovarian Cancer

**Dr Will Dixon (FMHS)**

Development of a validated clinical and research tool for measuring musculoskeletal disease severity using passive motion and position sensing

**Prof. Shaheen Hamdy (FMHS)**

Dysphagia in early stage Huntington's disease: A multimodal imaging approach to target stimulation based therapies

**Prof. David Ray (FMHS) and Prof. Andrew Loudon (FLS)**

Identification of novel REV-ERB agonists with anti-inflammatory action

**Dr David Brough (FLS)**

Development of novel inflammasome inhibitors for the treatment of Alzheimer's disease

**Dr Lydia Taberner (FLS)**

A new treatment for tuberculosis by targeting MptpB phosphatase

**Prof. Mike Bromley (FMHS)**

Development of a novel therapy to treat fungal infection

**Prof. Xin Wang (FLS)**

Repositioning of an anti-epileptic drug for anti-arrhythmic treatment

**Projects funded in Round 1 of UoM Confidence in Concept program**

**Prof. Paul Bishop (FMHS)**

Optimisation of an anti-angiogenic opticin peptide for eye diseases

**Dr Elizabeth Cartwright (FMHS)**

Development of a novel therapeutic approach to cardiac hypertrophy and heart failure.

**Dr Curtis Dobson (FLS)**

Development of point-of-care microbial safety monitors for peritoneal and haemodialysis patients

**Prof. Sue Kimber (FLS)**

Chondrocytes from human embryonic stem cells for the clinical repair of cartilage defects

**Dr Julie Gough, School of Material Science (FEPS)**

Resorbable magnesium alloys for bone repair applications

**Dr Neil Pendleton (FMHS)** and Prof. John Quinn (University of Liverpool)

Exploitation of Genome wide association markers for cognitive decline

**Dr Laura Parkes (FMHS)** and Prof. Graham Kemp (Liverpool)

Arterial Spin Labelled MRI – an imaging biomarker of cerebral blood flow in children

**Dr Kim Linton (FMHS)** and Prof. Andrew Pettit (Liverpool)

Molecular subtyping of diffuse large B-cell lymphoma (DLBCL) – developing a simple and inexpensive method for routine clinical use

**Prof. Robert Dryfe (FEPS)**

Graphene as a vehicle for drug delivery

**Dr Ardy Bayat (FMHS)**

Role of Graphene combined with electrical stimulation in the acceleration of wound repair

**Prof. Steve Williams (FMHS)**

Graphene-based MRI contrast agents

**Dr Chris Blanford (FEPS)**

Edge-specific reactions of biomolecules with graphene flakes on surfaces

**Prof. Jian Lu (FEPS)**

Nanocomposite Graphene Biomaterials and Bionanofilm Platform

**Prof. Geoff Margison (FMHS)**

Assessing graphene oxide as a matrix for DNA repair and DNA damage assays

**Prof. Ian Roberts (FLS)**

Antimicrobial properties of graphene oxide