**University of Leicester**

**Self-funded/Sponsored PhD Project information**

**Funding Source: Self-funded / Own Sponsor**

**Proposed start date: negotiable**

**Closing date for applications: open until filled**

**Eligibility: *UK – full-time and part-time applications accepted.***

***International. Full-time only.***

**Tuition fee band (if overseas): Band 5 - £26,500 per annum**

**Department/School:** **Population Health Sciences**

**Supervisors:**

Dr Rupert Major – rwlm2@leicester.ac.uk

Dr Jennifer Creese - jlc60@leicester.ac.uk

Professor James Burton - jb343@leicester.ac.uk

**Project Title:**

**Patient support for decision making in relation to arterio-venous fistula formation before dialysis and ligation after a successful transplant: a mixed-methods study**

**Project Description:**

People living with kidney disease often have to make complex decisions about their treatment options. Such examples for haemodialysis relate to arteriovenous fistula (“fistula”) formation. Fistulas are associated with lower rates of infective complications but do often require revision procedures and/or formation of a new fistula (1). Equally once a successful kidney transplant operation has been performed, whether to irreversibly ligate (“tie-off”) the fistula is an option.

Emerging evidence and clinical trial work suggests that there may be long term cardiovascular impact of a fistula, particularly those with high-flow through the fistula (definitions vary but typically thought to be >2000ml/min flow through the fistula) (2,3).The PhD project will be divided into four work packages to address the following aims:

1. To understand how patients and their carers make decisions about when to have a fistula formed prior to starting dialysis

2. To understand if and how patients are informed of options for their fistula after they have had a successful transplant

3. To study what factors might influence patient decision-making about whether to ligate a fistula after a successful kidney transplant

4. To develop and understand the feasibility of trialling a patient decision support tool for both formation of a fistula and ligation

**References:**

1. Keenan J, Barbre KA, Dollard P, Hoxworth T, Qureshi I, Dunham L, O'Leary E, Nuwoaty SA, Bagchi S, Edwards J, Lu M. A Six-Year Follow-Up of Bloodstream Infections in Hemodialysis Facilities in the United States, National Healthcare Safety Network, 2020. Clinical Journal of the American Society of Nephrology. 2024 Jan 24:10-2215.

2. Stoumpos S, Van Rhijn P, Mangion K, Thomson PC, Mark PB. Arteriovenous fistula for haemodialysis as a predictor of de novo heart failure in kidney transplant recipients. Clinical Kidney Journal. 2024 May;17(5):sfae105.

3. Rao NN, Stokes MB, Rajwani A, Ullah S, Williams K, King D, Macaulay E, Russell CH, Olakkengil S, Carroll RP, Faull RJ. Effects of arteriovenous fistula ligation on cardiac structure and function in kidney transplant recipients. Circulation. 2019 Jun 18;139(25):2809-18.

**Project enquiries to** Dr Rupert Major – rwlm2@leicester.ac.uk

**Application enquiries to** **cls-pgr@le.ac.uk**