UNIVERSITY OF LEICESTER

Job Summary

Job Title: **NIHR Clinical Lecturer - Dementia theme**
Honorary Specialty Registrar in Renal or Vascular Surgery (ST3 and above); or
Post CCT candidate in General Practice

Salary: Honorary StR - Nodal 4 (ST3-ST5) £65,048; Nodal 5 £73,992pa (ST6+)
General Practice post CCT £85,732-£111,133pa

Department: College of Life Sciences

Hours/Contract: Full-time or part-time (minimum 0.7FTE, 28 hours per week) fixed term contract for up to 48 months. Actual period of appointment defined by NIHR conditions; consideration may be given to a LTFT appointment which meets the NIHR criteria. The appointee must commence in post no later than 1 September 2026

Reference: 12137

Role Purpose

The post offers the opportunity for those with excellent potential as clinical academics to progress Specialist Training in Renal Medicine/Vascular Surgery, or work as a post CCT General Practitioner whilst further developing their academic skills, and undertaking high quality research within the theme of Dementia. The scheme is intended to develop the Lecturer into an independent principal investigator or educator who is able to apply competitively for a senior academic position in the future.

Balance of Duties

The Renal or Vascular Surgery ACL will be offered entry at their appropriate stage of training into their specialty training programme.

A General Practitioner will be required to have completed training and be on the GP register & to have a joint job plan & Memorandum of Understanding agreed between the University and a local GP practice for the delivery of clinical work. This muse be reviewed as a minimum on an annual basis.

The successful applicant will spend 50% of their time undertaking academic duties (research and teaching) and 50% of their time undertaking clinical training/work. The way that this split is arranged can be managed flexibly through liaison between the post holder, the academic supervisor and the clinical supervisory team or GP practice. Where required consideration can be given to the research being undertaken in dedicated blocks with no (or minimal) clinical commitment to ensure that the ACL has the opportunity to focus on their own academic work, as well as participate in the training opportunities within the School, College and wider University. There are a significant number of training courses and sessions that the University provides for clinical academic staff, and the trainee will be expected to identify, in consultation with their academic and research supervisors, the courses that are necessary for their on-going professional development as an academic clinician.
Excellent clinical training will be provided for those requiring specialty training through NHS England East Midlands training scheme. The key principle underlying this phase of training is that the balance of academic and clinical training will be agreed on an *ad personam* basis between the trainee's academic supervisor, the training programme director, and the SAC taking into consideration the level of training of the candidate at appointment.

In line with NIHR guidance LTFT applications may be considered. Dependent upon the fte undertaken, posts may be extended for a maximum of 6 years (equivalent to four years full time) and the academic component of the post must not fall below 0.33fte. Posts must also comply with guidance issued by the GMC with respect to LTFT academic trainees.

Resources Managed

- Supervise junior research staff and research students as required
- Manage research income as required

Main Duties and Responsibilities

Research (see appendix)

The CL will develop a portfolio of research related to existing interests within the College.

The appointee will be required to:

- To contribute in a significant and meaningful manner to the College's profiles by producing academic outputs of the highest standard.
- Ability to establish and develop an excellent and distinctive independent academic portfolio.
- Ability to write up research findings in a timely fashion resulting in publications in high quality peer-reviewed journals.
- Ability to establish successful collaborations within and beyond Leicester to enhance the overall College academic portfolio.
- To secure, in collaboration with colleagues, as appropriate, external research funding relevant to their academic project(s) and future independent research area, which will deliver outputs of excellence
- To attend and present research findings and papers at academic and professional conferences, and to contribute to the external visibility of the College
- To ensure that all research activities undertaken are in compliance with the 'Research Code of Conduct' operated by the University.
- To undertake research student supervision

Teaching

The appointee will contribute to teaching appropriate to their expertise on the MB ChB and other undergraduate and postgraduate courses. The medical curricula are integrated, and the structure and content are the responsibility of a single Medical College Curriculum Committee. They are coordinated by the Leicester Medical School in consultation with academic Schools. Staff may contribute to lectures, tutorials or practical work in either the core curricula or student selected Special Study Modules. In the case of the core curricula, staff will be responsible to a relevant Module Leader, who may not necessarily be based in the member of staff's own School, for the content and nature of their teaching.

UNIVERSITY OF LEICESTER

Job Summary

Clinical Duties

For Renal or Vascular trainees this will be managed and delivered by NHS England (Midlands), in accordance with the National training curriculum for the clinical specialty.
Details of the clinical training curriculums can be found at:
https://www.jrcptb.org.uk/specialties

Clinical training attachments will be fully approved training posts in the East Midlands rotation and mapped to the academic and clinical needs of the trainee.

If appointees are required to undertake out of hours work this will be managed in line with the terms and conditions of the resident doctors' contract.

General Practitioners will spend up to 50% of the time undertaking clinical practice in the locality and will be expected to be registered on one of the provider lists. The appointee may identify their own practice in which to undertake clinical duties, or assistance will be provided by the University in identifying a practice.

The precise job plan will be agreed, but it is anticipated that clinical and administrative duties will account for up to four sessions (40%) whilst the primary care meetings and
CPD will account for one session (10%).

- ***Clinical duties:*** appointments, visits, dealing with telephone queries from patients or other health care professionals.
- ***Administration:*** whether arising directly from this caseload (referrals, investigations, results) and indirectly (reports, medicals, etc).
- ***Primary care team meetings:*** formal or informal, essential to the delivery of team-based care, discussing clinical practice standards, developing practice protocols, mutual professional support for the individual practitioners, audit, significant event analysis, meetings with colleagues in the locality, care trust etc.
- **Management and Administration**
  To co-operate in the administrative work of the Centre and to undertake such duties as may from time to time be determined.
- **Continuing Professional Development**
  The post-holder will be expected to pursue a programme of CPD in accordance with the requirements of the Royal College of General Practitioners or another recognized body. This may include for example in-house meetings and events, private study, attending educational events.

Internal and External Relationships

- Coordination with central University offices as required.
- Delivery of research presentations at national/international conferences and meetings.
- Attendance and contributions to group and School meetings

- Liaison with collaborators within and outside the University of Leicester
- Seek guidance from academic, research, clinical and educational supervisors, administrative support staff and other academic colleagues as required
- NHS staff & patients

Supervision

Within the University the appointee will be responsible to their academic supervisor and ultimately to their Head of School.

As part of the NIHR academic training scheme, appointees in all specialties will have an academic supervisor and a research supervisor. The Director of the Clinical Academic Programme is responsible for ensuring that these supervisors are appointed and approved by the Clinical Academic Training Committee (CAT).

In addition, those in specialty training will also have a clinical supervisor and an educational supervisor. The educational supervisor is appointed by NHS England, must have undertaken appropriate training and is responsible for specifying the trainee's pathway to Certificate of Completion of Training. In addition, the appointee will be responsible for their clinical duties to the Training Programme Director and Clinical Director/Head of Service.

Where an academic supervisor is also a trained educational supervisor, approved by NHS England, they may undertake a dual role. A research supervisor cannot act as an academic or educational supervisor.

Planning and Organising

- Shaping the strategic direction of own area of activity, managing own time and leading the long-term planning and delivery of activity with respect to agreed priorities/projects with a view to applying for funding for a senior academic position
- Participation in the School operational planning process
- Supporting the strategic direction of the research group and College
- Seek guidance from mentors, administrative support staff and other academic colleagues as required.

Person Specification

All candidates in specialty training must satisfy the clinical training person specification available at

https://specialtytraining.hee.nhs.uk/Recruitment/Person-specifications

in addition to the person specification for a clinical lectureship below:

Qualifications, Knowledge and Experience

Essential

All candidates

- Basic medical degree, MB BS or equivalent*
- Full GMC registration *
- GMC Licence to practice*
- Higher degree (MD, PhD or equivalent) in field related to this post. Candidates who have submitted for their higher degree at the time of application may be considered but must have been fully awarded prior to 31 August 2026*
- A coherent, high quality and feasible plan of research
- Demonstration of understanding and commitment to academic career*
- Indication of medium and long-term career goals*
- Demonstration of reasons for applying for this Clinical Lectureship Programme*
- Evidence of teaching experience* and the ability to teach undergraduates and postgraduates
- Publications in peer reviewed journals, with ability to meet REF requirements*

Renal/Vascular candidates

- Evidence of achievement of Foundation competencies in line with GMC standards/Good Medical Practice Evidence of achievement of ST1 & ST2 competencies in medicine/surgery at the time of appointment (ARCP outcome 1 in ST1 and 2) *
- Hold an NTN in relevant specialty and have achieved an outcome 1 at the most recent ARCP, or have been through national recruitment and be regarded as appointable at ST3 or above in the clinical specialty and be able to provide formal evidence of this
- Have a minimum of one-year clinical training to complete at the time of commencement in ACL*
- Evidence of good progress in clinical training and that completion of specialty training may be accommodated either during or after the four-year period of the CL award*
- MRCP/MRCS or equivalent*

General Practice candidates

- MRCGP or equivalent*
- Completed Specialist training in General Practice*
- GP on UK GP Register and a GP Performers list *
- Undertaking clinical work in a local GP practice which is agreeable to signing a Memorandum of Understanding for delivery of 50% clinical work*

Desirable

- Evidence of commitment to specialty
- Intercalated honours degree and/or additional qualifications e.g. MSc etc
- Knowledge of the centre hosting the research and how this is best placed to support the research, education and training needs*
- Prizes or distinctions significant to this post*
- Presentation of work at a national or international meetings*

- Minimum of two 4* REF returnable publications*

Criteria to be used in shortlisting candidates for interview

Skills, Abilities and Competencies

Essential

- High level of proficiency in English, sufficient to undertake research, teaching and administrative activities utilising English Language materials and to communicate effectively with staff and students
- Area of research compatible with the interests of the College *
- Publications in national or international peer reviewed Journals*
- Evidence of presentations to learned societies*
- Demonstration of the potential for scientific independence and the ability to lead a research team
- Demonstration of personal reasons for applying for this Clinical Lectureship Programme
- Evidence of potential to become a leader in chosen field
- Evidence of ability to work effectively & co-operatively as a member of a multi-disciplinary team
- Commitment to personal and professional development
- A high degree of motivation and personal self-discipline
- Organisational ability
- Capacity to prioritise own workload
- Able to initiate/innovate
- Effective written communication skills*
- Effective oral communication & spoken English skills

Additional Requirements

Essential

- Satisfactory enhanced DBS disclosure
- Satisfactory occupational health clearance
- Meets professional health requirements (in line with GMC standards/Good Medical Practice)
- Medical defence cover
- Able to commence in post no later than 1 September 2026

Contract Information

This post is a fixed-term post & forms part of the integrated clinical/academic training programme. Funding is provided by NIHR for a maximum period of 4 years (full time), or until the post holder relinquishes their NTN whichever is the earlier, or until the end of an NIHR approved post CCT period.

Candidates must have a higher degree (MD/PhD, or equivalent), or have submitted their higher degree, at the time of application. The degree must be awarded prior to commencement. The post holder must be able to commence no later than 1 September 2026.

In line with NIHR guidance LTFT applications may be considered. Dependent upon the fte undertaken posts may be extended for a maximum of 6 years (equivalent to four years full time) and the academic component of the post must not fall below 0.33fte. Posts must also comply with guidance issued by the GMC with respect to LTFT academic trainees.

Renal & Vascular Surgery Specialty trainees will hold an NTN (a).

Should the appointee be due to attain CCT during the four-year funding period, an application may be made to NIHR for consideration to continue in post beyond CCT (up to a maximum of 4 years ie total ACL funded duration), to enable the individual to make the transition to research independence.

In making an application the following conditions must be met:

- Applications for extension must be made to NIHR at least 6 months prior to CCT.
- A trainee that wishes to apply for an extension must have more than 12 months remaining of their training at the time of appointment to the NIHR CL post. Trainees with less than 12 months to CCT will be considered ineligible.
- Except in exceptional circumstances, post-CCT CLs must reduce their clinical commitments to 2 clinical sessions per week, which should be sufficient to maintain clinical skills and remain appointable as an NHS consultant. Those employed in the craft specialties may seek permission within the extension request to undertake up to 4 clinical sessions per week.
- In giving consideration to an extension within the existing four-year funding period, NIHR may approve for a maximum of 24 months beyond CCT (including the grace period), or until the 4-year funding maximum is reached. For example, a CL who uses 3.5 years of the funding to reach CCT will be offered a 6-month extension (equivalent to the grace period).

Extensions are not automatically given; they are considered on a case-by-case basis and are not guaranteed to be granted.

Should you not complete training to CCT during the period of this appointment the post will be reviewed to determine if the appointee is to transfer to an NHS StR post to complete their training, or if the academic post can be extended using local funding.

An honorary StR contract will be sought from the University Hospitals of Leicester NHS Trust (http://www.leicestershospitals.nhs.uk/aboutus), or the hospital in which they are based on the training scheme, as appropriate.

General Practice (Post CCT)

Appointees in General practice will hold a jointly agreed clinical and academic job plan between their GP practice and the University, and a Memorandum of Understanding will be put in place between the Practice and the University for management of the post. Appropriate NHS research governance arrangements will be put in place with respect to the research to be undertaken.

Professional Requirements

You must be registered with the GMC, hold a licence to practice, abide by the codes of professional practice and have appropriate cover from a medical defence organisation for the duration of your appointment. Lapsing may render you subject to disciplinary action and you cannot be lawfully employed should registration lapse. You are required by the GMC to revalidate every five years. You must therefore advise the University of your revalidation dates and provide written evidence of your satisfactory revalidation where these fall within your period of employment with the University. You are also required to abide by the codes of professional practice as detailed by the professional body GMC.

It is a fundamental condition of employment for those in training that you hold and retain an honorary clinical specialty registrar contract with a recognised NHS Trust acceptable to the University for the duration of your employment. You must not commence work prior to this contract being awarded. The appointment with the University will automatically terminate should an honorary NHS contract be withdrawn or otherwise come to an end.

It is a fundamental condition of employment for GPs that a joint job plan and Memorandum of Understanding acceptable to the University remain in place for the duration of your employment. You must not commence work prior these being agreed. The appointment with the University will terminate where your GP clinical service commitment is withdrawn or otherwise comes to an end.

Appointees will be expected to engage in appropriate continuing professional development.

You will be required to comply with all NHS employment checks and satisfactorily meet these requirements prior to commencement in post. You are required to comply with the appropriate occupational health procedures for the post which you are to undertake. You must provide evidence of OH clearance from UHL (Renal) or your GP practice by commencement.

Management of the Academic Programme

The academic programme is managed by the Clinical Academic Training (CAT) Operational Group & comprises members from the University, NHS Midlands and partner NHS Trusts. It is led by the Director of CAT, currently Dr Anvesha Singh. The Clinical Academic Training programme is responsible for annually reviewing the academic progression of the trainee to inform their ARCP.

Appraisal and Revalidation

At the commencement of the lectureship the academic trainee must meet with their academic supervisor to ensure that an integrated and jointly agreed training programme/job plan is agreed, & at a minimum of six-monthly intervals thereafter, preferably more frequently, to review progress. The trainee will also have an induction meeting with the Director/Deputy Director of the Clinical Academic

Training Programme and the Administrative Manager for the programme. In addition, the appointee should meet regularly (at least bi-monthly) with their research supervisor.

The appointee will be required to attend an annual academic review & provide the required information to the review panel. These normally take place in May each year. The academic supervisor must ensure that a report on academic progress is submitted to the Director of Clinical Academic Training (CAT) at least 2 weeks prior to the review. Following the review, the Director of CAT will provide a letter of progression to inform the ARCP of academic progress (Renal). Documentation from the academic review & the Director's report will inform University probation. All appointees are required to comply with the University's PDD processes.

Renal & Vascular trainees

Specialty trainees must also meet with their clinical & educational supervisors

The ARCP will jointly assess academic and clinical progress and the outcome of the process will be recorded.

In the event that at the second year review it is evidenced that the appointee has been unsuccessful in developing an academic career a recommendation will be made for specialty trainees to join the standard clinical training programme.

General Practice (post CCT)

Prior to commencement a Memorandum of Understanding must be agreed with the GP practice in which the appointee is based and a joint job plan agreed between the University, involving both the Clinical Academic Training Programme Director and the appointee's supervisors) and the GP practice. This process will be administered by the administrative manager for the academic programme.

It is expected that at the second year review there is clear evidence that the appointee is successfully developing an academic career. If this cannot be evidenced a recommendation may be made for the appointee to leave the ACL post.

Participation in the NHS/University Joint Appraisal Scheme is a condition of employment. In accordance with the Follett Report recommendations the appointee will be expected to participate in a joint appraisal arrangement as agreed locally. The "joint appraisal" will be conducted by two appraisers, one from the University and one from the NHS, working together with the post-holder on a single occasion.

Teaching Qualification

CLs with less than 3 years' experience of teaching in higher education are expected to complete the Postgraduate Certificate in Academic and Professional Practice within a reasonable timeframe of starting their employment with the University. CLs with more than 3 years' teaching experience, who do not already hold an Academic Teaching Qualification as defined by HESA such as teaching qualification (UK or International), or Fellowship of the Higher Education Academy, are expected to achieve the latter within a reasonable timeframe of starting their employment with the University. Fellowship of the Higher Education Academy can be achieved through the Experiential Route of the University's Professional Educational Excellence Recognition Scheme (PEERS).

UNIVERSITY OF LEICESTER

Job Summary

NHS Research Governance Requirements

Where it is determined that the duties of this post for the purposes of research involve work with the NHS, it is necessary to ensure that the performance of the duties attached to the post are covered by NHS research governance arrangements and the appointee must comply with all such arrangements, which may include occupational health clearance and DBS clearance.

Criminal Declaration and Disclosure and Barring Service (DBS).

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

This post is exempt from the Rehabilitation of Offenders Act 1974 because the appointee will have substantial access to young people and/or vulnerable adults. Therefore, an appointment to this post will be subject to checking through the Disclosure and Barring Service (DBS). The successful applicant for this post will, therefore, be required to give consent for the University to check and obtain appropriate clearance with the DBS for the existence and content of any criminal record in the form of an Enhanced Barred with Adult & Child Workforce Check.

Information received from the DBS and the police will be kept in strict confidence and will be destroyed once the University is satisfied in this regard.

Supporting University Activities

As a University of Leicester citizen, you are expected to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.

University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Freedom of Speech

The University is committed to upholding freedom of speech and academic freedom within the law

throughout our recruitment processes. We ensure that all candidates are considered based on merit and suitability for the role, without regard to their lawful viewpoints or the expression of challenging or controversial ideas. Our recruitment policies and practices are designed to protect applicants from discrimination or adverse treatment on the basis of their opinions, and to foster an environment where open debate and diverse perspectives are valued as essential to our academic mission.

Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.

UNIVERSITY OF LEICESTER

Job Summary

Appendix

Dementia Research

Vascular dementia (VaD) is the second commonest type of dementia, and vascular mechanisms also contribute to the development of Alzheimer's dementia and mild cognitive impairment. Certain patient groups are particularly at risk of VaD, including those affected by stroke or transient ischaemic attack, and those living with vascular surgical pathologies. In a recent meta-analysis, we found a prevalence of cognitive impairment of 61% (95% CI 48 – 74) amongst vascular surgical patients (https://pubmed.ncbi.nlm.nih.gov/33573912/), and our trial data suggest key abnormalities in cerebral haemodynamic parameters, even at early stages of cognitive decline (https://pubmed.ncbi.nlm.nih.gov/33720895/). However, VaD is under-researched, and there are no effective treatments.

Building on an existing programme of research, which sits within the themes of the BRC, evaluating haemodynamic mechanisms in cognitive disorders and the validation of cognitive assessment tools, the ACL will benefit from an extremely strong cross-discipline research collaboration between the Leicester Vascular Institute and the internationally renowned Cerebral Haemodynamics in Ageing and Stroke Medicine group, which is overseen by an NIHR Senior Investigator, Prof Thompson Robinson (Honorary Consultant) who is also the Pro Vice-Chancellor and Head of the College of Life Sciences
https://www2.le.ac.uk/departments/cardiovascular-sciences/research/imaging/cerebral-haemodynamics-in- ageing-and-stroke-medicine/

Both groups have extensive experience in translational and clinical trials, a very strong record of attracting grant funding (NIHR, MRC, BHF, Stroke Association, EPSRC, Dunhill Medical Trust, George Davies Vascular Surgery Fund), high impact publications (NEJM, Lancet, BMJ, Neurology, Stroke, JCBFM) and strong links with other national and international research groups.

The group also has a strong track record of supporting ACLs into senior academic positions including

- Mr Athanasios Saratzis – Associate Professor, NIHR Advanced Fellow/Honorary Consultant, UHL
- Dr Jatinder Minhas – Associate Professor/Honorary Consultant, UHL
- Dr Victoria Haunton – Associate Professor (Plymouth) & Honorary Senior Lecturer, University of Leicester
- Dr Lucy Beishon who commences an NIHR Advanced Fellowship in May 2026. She undertakes research with Prof Elizabeta Mukaetova-Ladinska who is a Professor of Old Age Psychiatry and holds an Honorary Consultant contract with the Leicestershire Partnership NHS Trust.

Vascular Surgery

UNIVERSITY OF LEICESTER

Job Summary

Vascular Surgery is currently based in the Department of Cardiovascular Sciences, which is the largest department within the College of Life Sciences. The Department's mission is to undertake bench-to-bedside research, education and training, and clinical practice that impacts on the health and well-being of patients and the public.

The vascular surgery group has specific expertise in applied vascular research (£9.5 million in current research grants). The group has a strong track record of supervising ACFs and PhDs. The ACL will join an established interdisciplinary programme of research involving clinicians and methodologists. Research training will be bespoke, including statistics, qualitative research methodology, and trial design.

Clinical Academic Staff

- Professor Matt Bown, BHF Professor/Honorary Consultant mjb42@le.ac.uk
- Professor Rob Sayers, George Davies Professor/Honorary Consultant rs152@le.ac.uk
- Professor Athanasios Saratzis Professor/Honorary Consultant as875@le.ac.uk
- Dr John Houghton NIHR ACL/Specialty Registrar
- Dr Dimitrios Vlastos NIHR ACL/Specialty Registrar

The group also has a number of honorary staff, researchers, clinical research fellows and support staff

Research Opportunity - PICO Study

This study aims to demonstrate how **precision medicine** and **integrated dementia care** can improve clinical outcomes for a high-risk vascular population, laying the foundation for a future full-scale trial.

Population (P):
Patients with **chronic limb-threatening ischaemia (CLTI)** undergoing **vascular intervention or surgery** in the NHS, with a focus on those who are **frail**, focussing on those with **cognitive impairment or dementia**, and at **elevated cardiovascular risk**.

Intervention (I):
A **precision medicine approach** using **bedside assessment tools** to evaluate frailty, cognitive status, and cardiovascular risk. This enables:

- **Targeted antithrombotic therapy** and **tailored cardiovascular medical optimisation** (e.g., lipid-lowering, antihypertensives, diabetes management)
- **Integrated dementia care interventions**, including delirium prevention, medication review, cognitive-friendly care plans, and appropriate multidisciplinary input

Comparator (C):
Current standard NHS care, which may involve non-standardised or suboptimal management of cardiovascular risk, frailty, and cognitive impairment.

Outcome (O):

- Improved prescribing and adherence to evidence-based antithrombotic and cardiovascular medications
- Reduction in major adverse cardiovascular and limb events (MACE, MALE)
- Improved frailty and cognitive function outcomes
- Reduced perioperative complications including delirium
- Feasibility and acceptability of precision medicine strategies in patients with frailty and/or dementia

Study Design Summary

A **two-phase study**:

1. **Single-site exploratory study** to evaluate current practices and implement a precision medicine pathway incorporating targeted medical optimisation and dementia-specific interventions.

2. **Multi-centre feasibility study** to assess broader implementation, clinical impact, and barriers to embedding personalised care strategies across NHS vascular units.

Renal Medicine

Renal research is currently based within the Department of Cardiovascular Sciences. The department has a strong background of laboratory and clinical research with a national and international profile. There are modern laboratory facilities in the University of Leicester Centre for Medicine and at Glenfield and Leicester General Hospitals within the College of Life Sciences. Several research staff are supported by grants from research councils, charities and from industry.

The CL will work alongside basic and clinician scientists, and with industry collaborators, to extend the current work of the research group.

<u>Clinical Academic Staff</u>

- Professor Jonathan Barratt/Honorary Consultant - Mayer Professor of Renal Medicine Research focuses on IgA nephropathy (IgAN).
- Dr Haresh Selvaskandan - NIHR ACL/Honorary StR
- Professor James Burton/Honorary Consultant/ NIHR Senior Investigator.
- Dr Rupert Major, Associate Professor/Honorary Consultant.
- Dr Matthew Graham-Brown, Associate Professor/Honorary Consultant.

The group also has a number of honorary staff, researchers, clinical research fellows and support staff.

UNIVERSITY OF LEICESTER

Job Summary

Research Opportunity - Dementia and Cognitive Impairment
(Professor James Burton's group)

In the UK, around 7.2 million people (just over 10% of the population) are living with chronic kidney disease and there are nearly 71,000 adults receiving kidney replacement therapy (transplantation and dialysis) for kidney failure. Kidney disease is a public health concern; the burden of kidney disease is increasing in the UK and globally; it has been estimated that by 2030, 5.4 million people will require kidney replacement therapy worldwide. People requiring maintenance dialysis have a poorer health-related quality of life compared to the non-dialysis population and experience high rates of hospitalisation, co-morbidity and mortality. Cardiovascular disease is the leading cause of death in kidney disease and 15 to 20% of individuals die within 12 months of commencing dialysis. Kidney disease is expensive, with current estimates indicating it uses 3.2% (£6.4 billion) of the total NHS budget.

Chronic kidney disease-associated cognitive impairment is an underserved area and there is a lack of understanding regarding the ***kidney-brain axis***, its implications for health and clinical care. Individuals living with kidney disease have a higher risk of developing dementia (both Alzheimer's and vascular types) and it has been demonstrated that cognitive function is impaired by chronic kidney disease stage, with the prevalence and experience of cognitive impairment worsening as the kidney function declines. The dialysis population are particularly vulnerable to cerebrovascular insult; up to 70% of those ≥ 55 years and 10% aged 21 to 39 years on chronic haemodialysis have moderate-to-severe cognitive impairment. This is likely to exacerbate the burden to the individual, their family, the healthcare service and society as a whole, yet this impact has not been quantified.

The pathophysiology of cognitive impairment in the kidney disease and dialysis population is thought to be multifactorial and includes, but not limited to: traditional cardiovascular risk factors, impact of declining kidney function (e.g., uraemic toxins, chronic inflammation, disrupted metabolic pathways, anaemia), and the impact of dialysis therapies, both haemodialysis and peritoneal dialysis. Chronic-kidney disease-associated cognitive impairment appears to be more common in the haemodialysis population, with haemodialysis induced haemodynamic stress and microvascular ischaemia, and alterations to cerebral autoregulation key perpetrators of damage. Chronic glucose exposure and the accumulation of advanced glycation end-products in peritoneal dialysis are thought to contribute to the cognitive impairment in this population. Overall, the pathophysiology of cognitive impairment and dementia in the kidney disease population is poorly understood, and the impact to both the individual and society has not been characterised. This limits patient autonomy (particularly individual ability to plan for the future and making fully informed choices regarding treatment modalities), inhibits the development of chronic kidney disease specific diagnostics and therapies, and impacts healthcare service planning.

The Leicester Renal Network cares for more than 2,500 individuals on chronic kidney replacement therapy across 11 dialysis units and four counties in the Midlands, alongside thousands more individuals living with chronic kidney disease. The University of Leicester hosts a wealth of expertise in nephrology research for both the chronic kidney disease and dialysis population, from laboratory-based research to large multicentred clinical research trials. The research team have extensive experience in supporting and supervising clinical-academics at all stages in their clinical training. The

Academic Clinical Lecturer would have an excellent platform to develop and provide clinically-meaningful research regarding cognitive impairment and dementia in the kidney disease population at the University of Leicester.

General Practice

A General Practice candidate may choose to work with either the Renal or Vascular research teams.