**Funding Source: Wellcome Trust grant**

**Proposed start date**: 1 October 2024

**Eligibility:** UK applicants only

**Department/School:** Health Sciences

**Supervisors:** Dr Molly Baldwin (molly.baldwin@uhl-tr.nhs.uk), Prof. Nicolette Bishop (N.C.Bishop@lboro.ac.uk), Prof. Sally Singh (sally.singh@uhl-tr.nhs.uk), Dr. Nicola Paine (N.J.Paine@lboro.ac.uk)

**Project Title:** The effect of lifestyle activity and pulmonary rehabilitation on chronic systemic inflammation in individuals with Chronic Obstructive Pulmonary disease (COPD) of different ethnicities

**Project Description:**

The prevalence of COPD is increasing in the UK, with disparities present in the management and prognosis of COPD in individuals of South Asian and white European ethnicities; specifically, surrounding referral/uptake to pulmonary rehabilitation – a gold-standard COPD treatment. COPD is associated with chronic systemic inflammation, a key driver of disease progression, which can initiate/worsen comorbidities, such as heart disease and diabetes. These comorbidities also cause inflammation, adding to the inflammatory burden. Increasing physical activity can reduce inflammatory markers; however, data in COPD is lacking, with data from South Asian patients scarcer. Therefore, this PhD will investigate the anti-inflammatory effects of lifestyle activity and pulmonary rehabilitation, and associations of this with comorbidity risk, in white European and South Asian COPD patients. In addition, qualitative methods will be used to explore the barriers and facilitators to referral/uptake to pulmonary rehabilitation in the South Asian community. The project and training will provide skills and knowledge in patient-centred methodologies in combination with experimental medicine, encompassing respiratory medicine, exercise physiology, and exercise immunology. The project will be based in the internationally renowned National Centre for Sport and Exercise Medicine at Loughborough University and NIHR Leicester Biomedical Research Centre. The successful candidate will receive training in all the techniques required.

**References:**
1. Nici L, et al. (2006) American Thoracic Society/European Respiratory Society statement on pulmonary rehabilitation. Am J Respir Crit Care Med 173(12):1390–1413. Doi: 10.1164/ rccm.200508-1211ST PMID: 16760357.
2. Gilkes, A et al. (2017) Ethnic differences in smoking intensity and COPD risk: an observational study in primary care. npj Prim Care Resp Med 27, 50 doi: 10.1038/s41533-017-0052-8. PMID: 28871087: 10.1164/rccm.200508-1211ST.
3. Department of Health (2011) An Outcomes Strategy for Chronic Obstructive Pulmonary Disease (COPD) and Asthma in England Department of Health <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/216140/dh_128427.pdf>
4. Martin A, et al, (2012) Effect of ethnicity on the prevalence, severity, and management of COPD in general practice. Br J Gen Pract. 62(595):e76-81. doi: 10.3399/bjgp12X625120. PMID: 22520773

**Funding details:**

*Students on this programme will be supported by a generous funding package. This will include:*

* *Postgraduate research fee waiver at standard College of Life Sciences UK rates for three years of the PhD*
* *Wellcome Trust stipend covering your salary for all three years of the PhD*
* *Research grant for training, research and travel costs*

**Entry requirements:**

Applicants are required to hold/or expect to obtain a UK Bachelor Degree 2:1 or better in a relevant subject. UK Bachelor Degree 2:2 may be considered, subject to approval from the Dean of the Doctoral College.

The University of Leicester [English language](https://le.ac.uk/study/research-degrees/entry-reqs/eng-lang-reqs) requirements apply where applicable.

This programme is open to:

* allied health professionals
* nurses
* midwives
* junior doctors
* general practitioners

Fellows recruited to the programme must be practicing healthcare professionals and be registered with a national professional regulatory body (e.g. the General Medical Council, Health and Care Professions Council) in the UK/Republic of Ireland.

Medical graduates must be registered on a UK/Republic of Ireland specialist training programme or must be a registered GP.

All fellows must have completed their undergraduate degree and be registered with the relevant professional body.

**Application advice:**

For full application advice, please go to: <https://le.ac.uk/study/research-degrees/healthcare-inequalities/application-help>.

To apply, please go to: <https://le.ac.uk/study/research-degrees/funded-opportunities/leicestershire-healthcare-inequalities-improvement-dtp>

With your application, please include:

* Full up to date CV
* Personal statement of 700 words (excluding references). For detailed instructions on what we will be looking for in your personal statement and your CV, please review the guidance here: <https://le.ac.uk/study/research-degrees/healthcare-inequalities/application-help>. **Please do not exceed the word limit, as your application may be delayed.**
* Degree Certificates and Transcripts of study already completed and if possible transcript to date of study currently being undertaken
* Evidence of English language proficiency if applicable
* In the reference section please enter the contact details of your two academic referees in the boxes provided or upload letters of reference if already available.
* A filled out Widening Participation Questionnaire

In the funding section please specify that you wish to be considered for **Wellcome Trust LHII DTP**

In the proposal section please provide the name of at least one or at most two of the projects you are interested in (please indicate title and name of supervisor). The first project you list will be taken to be your preferred choice.

Upload the Widening Participation form (found on the above link) to the proposal section

**Project / Funding Enquiries to:** **lhiip@leicester.ac.uk**

**Application enquiries to** **pgradmissions@le.ac.uk**

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