**Funding Source: Wellcome Trust Grant**

**Proposed start date: 1 October 2022**

**Closing date for applications: 8 April 2022**

**Eligibility:** UK applicants only

**Department/School:** Health Sciences

**Supervisors:** Prof Tom Yates ([ty20@leicester.ac.uk](mailto:ty20@leicester.ac.uk) ), Prof Pratik Choudhary ([pratik.choudhary@leicester.ac.uk](mailto:pratik.choudhary@leicester.ac.uk) )

**Project Title:** Optimising weight loss in South Asian populations with cardiometabolic disease: a focus on exercise, lean mass preservation and metabolic health

**Project Description**

Obesity in South Asian populations is associated with a higher risk of long-term conditions and infectious disease compared to many other ethnic groups. In addition, the risk of frailty and poor physical function is increased. Therefore, optimising functional and metabolic health with weight management in South Asian individuals with obesity is a public health priority. This PhD project seeks to address this area through a multidisciplinary programme of medical research. The overall aim is to investigate the effect on lean mass preservation and insulin resistance of an exercise intervention in South Asian individuals with obesity and cardiometabolic disease when undergoing a programme of rapid weight loss. The project will include the set-up and integration of novel mechanistic outcomes, including insulin clamps and muscle biopsies, supported by relevant clinical expertise. The project is suitable for a wide range of Allied Health Care Professionals, including physiotherapists, dieticians, nurses, clinicians or GPs with an interest in obesity management or exercise therapy.

**References:**

1. Davies M, Færch L, Jeppesen OK, Pakseresht A, Pedersen SD, Perreault L, Rosenstock J, Shimomura I, Viljoen A, Wadden TA, Lingvay I. Semaglutide 2· 4 mg once a week in adults with overweight or obesity, and type 2 diabetes (STEP 2): a randomised, double-blind, double-dummy, placebo-controlled, phase 3 trial. The Lancet. 2021 Mar 13;397(10278):971-84.

2. Sargeant JA, Jelleyman C, Coull NA, Edwardson CL, Henson J, King JA, et al. Improvements in Glycemic Control After Acute Moderate-Intensity Continuous or High-Intensity Interval Exercise Are Greater in South Asians Than White Europeans With Nondiabetic Hyperglycemia: A Randomized Crossover Study. Diabetes care. 2021;44(1):201-9.

3. Sattar N, Gill JM. Type 2 diabetes in migrant south Asians: mechanisms, mitigation, and management. The lancet Diabetes & endocrinology. 2015 Dec 1;3(12):1004-16.

4. Wilding JP, Batterham RL, Calanna S, Davies M, Van Gaal LF, Lingvay I, McGowan BM, Rosenstock J, Tran MT, Wadden TA, Wharton S. Once-weekly semaglutide in adults with overweight or obesity. New England Journal of Medicine. 2021 Mar 18;384(11):98.

5. Yates T, Henson J, Sargeant J, King JA, Ahmad E, Zaccardi F, Davies MJ. Exercise, Pharmaceutical Therapies and Type 2 Diabetes: Looking beyond Glycemic Control to Whole Body Health and Function. Translational Medicine and Exercise Prescription. 2021 Jun 16;1(1):33-42.

6. Yates T, Edwardson CL, Celis-Morales C, Biddle SJH, Bodicoat D, Davies MJ, et al. Metabolic effects of breaking prolonged sitting with standing or light walking in older South Asians and White Europeans: a randomized acute study. The journals of gerontology Series A, Biological sciences and medical sciences. 2018.

**Funding details:**

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

* *UK Tuition Fees for three years of the PhD*
* *Wellcome Trust stipend covering your salary for 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.

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 and the link to our online application please go do: <https://le.ac.uk/study/research-degrees/funded-opportunities/leicestershire-healthcare-inequalities-improvement-dtp>

With your application, please include:

* CV
* Personal statement explaining your interest in the project, your experience and why we should consider you
* 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.

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).

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

**Project / Funding Enquiries to:** [**lhiip@leicester.ac.uk**](mailto:lhiip@leicester.ac.uk)

**Application enquiries to** [**pgradmissions@le.ac.uk**](mailto:pgradmissions@le.ac.uk)

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