



MRC Laboratory  
of Medical  
Sciences

# Join LMS

We are recruiting for

**Chain Florey Transition-  
To-Independence  
Fellowships**



**Opening dates**

**06.02.25**  
(cardiology)  
**11.02.25** (other)

**Closing dates**

**02.03.25**  
(cardiology)  
**04.03.25** (other)

**Interview dates**

**18.03.25**  
**26.03.25**

**Apply  
now**



Medical  
Research  
Council

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Our purpose-built facility  
at the heart of the world-leading  
biomedical hub at the Imperial  
College Hammersmith Campus.

A royal visit from  
HRH, the Princess Royal  
in 2024.







# A word from our Director

**Wiebke Arlt**

**We are thrilled that you are considering working at the MRC Laboratory of Medical Sciences (LMS) to further advance your clinician scientist career.**

The LMS is a vibrant biomedical research institute with a focus on mechanistic biomedical discovery science. We value transdisciplinary team science as a transformative approach to address major questions of relevance to human health and disease. Our state-of-the-art building, our innovative and highly collaborative researcher community and our scientific core facilities collectively build the backbone of our research. Our cutting-edge facilities provide our researchers with expert guidance, as well as driving innovation through the development of new methodologies.

The LMS is looking to recruit up to three post-CCT level Transition-To-Independence (TTI) Fellows as part of the Chain Florey clinician scientist training programme. We are looking for clinician scientists who have recently completed their clinical training (or will do so in the next 12 months) to develop an intermediate fellowship or a clinician scientist research programme with a focus on mechanistic discovery science or early experimental medicine. We would like to recruit new TTI fellows who are interested in our three priority areas:

1. Cell identity across the life course (including early development and ageing)
2. Sex differences in biology and disease
3. Gene-environment interactions (pertaining to the impact of endogenous and exogenous environmental determinants, including over-nutrition)

We are open to how your research aligns with our priority areas. One of the three available TTI fellowship positions focuses on cardiac imaging. For this specific position, we are particularly interested in hearing from clinician scientists who are researching machine learning or data science approaches for patient stratification and genetic association analyses using cardiac magnetic resonance imaging in biobank populations. Applications are welcome from any disciplinary background.

As a Chain Florey TTI fellow, you will be provided with a full mentorship programme and have access to the entire range of our scientific core facilities to drive your research forward, including a state-of-the-art animal house for detailed functional studies. We are also establishing a networked human in vivo physiology core facility providing support for studies with human tissues as well as for human in vivo physiology and experimental medicine approaches. You will also have a research consumables budget and have the option to apply for technician support.

Diversity is essential to excellence in scientific endeavour. Everyone at our institute shares in the responsibility to actively promote dignity, respect, inclusivity and equal treatment.

We are committed to creating equality of opportunity to all members of the organisation, regardless of their background, and promoting diversity and inclusivity. We warmly welcome applications from all backgrounds and from anywhere in the world.

# Why join the LMS?

The LMS is a biomedical research institute, where scientists and clinicians collaborate to advance the understanding of biology and its application to medicine. Home to around 35 research groups, the LMS offers access to nine cutting-edge research facilities and provides exceptional support for communications, involvement and engagement.

Our state-of-the-art laboratories are located on Imperial College London's Hammersmith Hospital campus, and we are partners with Imperial through the Institute of Clinical Sciences. Positioned within a rich multidisciplinary environment, with Hammersmith Hospital and Imperial's White City Campus, Biomedical Research Centre and Clinical Research Facility all in close proximity, the LMS aims to leverage its cross-disciplinary network to deliver transformative team science, tackle major public health challenges and push the boundaries of discovery to unprecedented heights.

"You are surrounded by experts willing and able to help you achieve your research goals, and teamwork is really valued here, which is a key part of the culture."

**Mark Sweeney**





# Our structure

The success of our research is built upon strong foundations of teamwork and collaboration

At the LMS, you will have the opportunity to interact with and benefit from:

## Chain Florey clinician scientist programme

The Chain Florey Programme was set up in 2009 to offer world class research training to medical graduates and clinical trainees, allowing them to advance their career as clinician scientists with a focus on discovery science and experimental medicine. The programme has supported many clinicians across a range of career stages to combine their medical knowledge with a new-found expertise for scientific research. This programme benefits our research groups by fostering clinical links and accelerating translation by enhancing the clinical relevance of our work.

## Research groups

Our research groups are led by Group Heads, who lead their independent research programmes. Group Heads are appointed at either Programme Leader Track or Programme Leader level. They are supported by postdoctoral researchers, PhD students, technicians and lab managers.

## Core facilities

Our core facilities work in collaboration with our research groups to bring cutting-edge support to our research – providing expertise in specific methodologies and data analysis. Our core facilities also lead our science technology graduate programme, which offers graduates an opportunity to learn specialist skills, gain significant work experience and further their personal development.

## PhD programme

The LMS offers two PhD programmes, our general programme and our transdisciplinary PhD (tPhD) programme, which aims to bring together researchers from different disciplines and industries to deliver novel insights. Both programmes provide four years of funding for the students and the opportunity to explore other sectors. All students have a primary supervisor and one to two additional supervisors that meet at least monthly as a team with the student. Students work directly with our research groups on an exciting and demanding project and acquire a variety of technical and personal skills that will equip them for their future careers.





# Our research priorities

Research at the LMS is collaborative, multidisciplinary and diverse. Our work examines the mechanisms that underlie multimorbidity.

Multimorbidity is a central challenge to human health. Encompassing the accumulation of chronic conditions as we age, including cancer, metabolic and cardiovascular diseases, it also includes many rare and complex inherited disorders which define multimorbidity in the young.

Increased life expectancy has brought a demographic shift over recent decades, resulting in a rise in the prevalence of chronic and potentially disabling diseases and conditions. This creates increasingly complex problems in managing patients in the 21st century. A better understanding of the mechanisms that can support healthy ageing is key to the identification of novel interventions that increase health-span rather than life-span.

LMS research takes a systems approach and uses team science to ensure that our detailed discovery science translates into clinical impact responding to the most critical challenges of medicine and healthcare.



“Our research investigates the interacting mechanisms behind the biological problems that are interwoven in multimorbidity; by taking a systems approach and embracing the collaborative philosophy of team science, we ensure our discovery research has clinical impact on the most pressing challenges of 21st century healthcare.”

Wiebke Arlt

## Our research strategy has defined three synergistic priority areas:

1

### Cell identity across the life course

From the creation of life through to death, what are the determinants of both life- and health-span? Each stage of life presents unique biomedical challenges, but the fundamental principles of ageing influence biological mechanisms across the course of life. Our teams explore the molecular processes of fertility, pregnancy, early development and genetic and epigenetic inheritance. LMS research seeks to explain how the biological processes of ageing influence not only life-span but also facilitate an extended health-span, in essence what enables healthy, long lives at the molecular, cellular and systems level.

2

### Sex differences in biology and disease

Sex differences take hold in foetal development and inform biological development and response to diseases. Diseases manifest differently in men and women, immune and drug responses vary, and some conditions exclusively or predominantly affect one sex. Biomedical research has historically neglected these differences, resulting in poorer treatment for women or the framing of women's health as being limited to aspects of reproductive processes, disregarding differences across the course of life. LMS research not only directly addresses these differences to improve diagnostics and therapeutics for all but also ensures that sex differences are considered in discovery research.

3

### Gene–environment interactions

With a changing climate, increasing pollution, and the growing influence of chemicals in the environment on health as well as the impact of endogenous and exogenous environmental influences, including (over)nutrition and temperature. LMS research starts at the molecular level, asking how these outside influences are reflected in metabolic and epigenetic processes in the body. How is gene regulation changed over time, what are the consequences for long-lasting heritable characteristics, and how does the body's response to cues and situations distort?



# What is the Chain Florey TTI Fellowship?

## Purpose and objectives

The Chain Florey Transition-To-Independence (TTI) Fellowship scheme provides a unique opportunity for clinician scientists who have recently completed their clinical training to develop an intermediate fellowship or a clinician scientist research programme. The scheme also gives participants access to a mentorship scheme, core research facilities, technician support (available upon application), and a research consumables budget.

The TTI Fellowship addresses an important gap in clinical academic career progression, the challenge clinician scientists face post-CCT when they are no longer eligible for clinical lecturer posts but are not yet competitive for 5-year clinician scientist fellowships awarded by governmental or charitable funders.

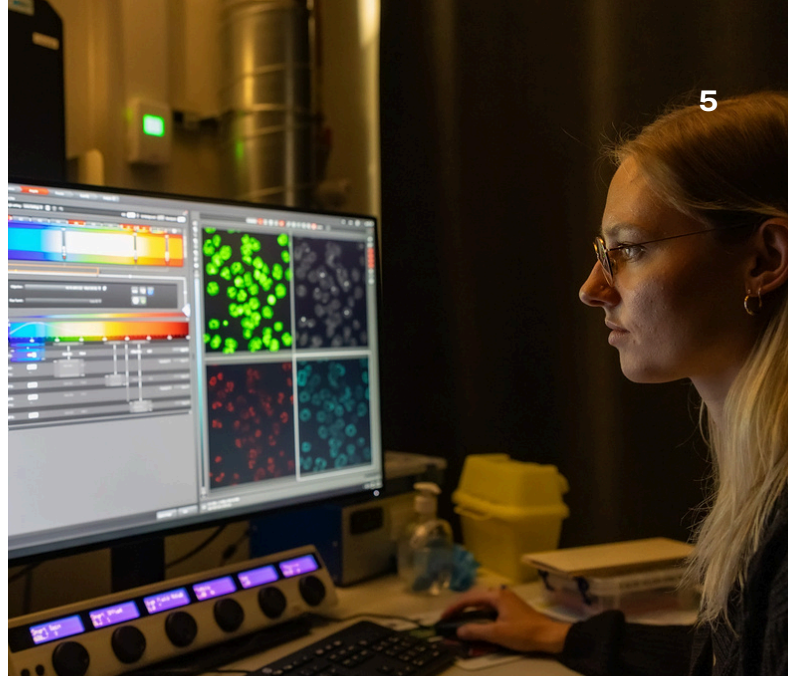


## Core components

The TTI Fellowship provides post holders with protected research time (80% research; 20% clinical time for maintenance of competency) to develop a highly competitive application to national or international governmental or charitable funders underpinned by preliminary data.

Core components of the TTI scheme include:

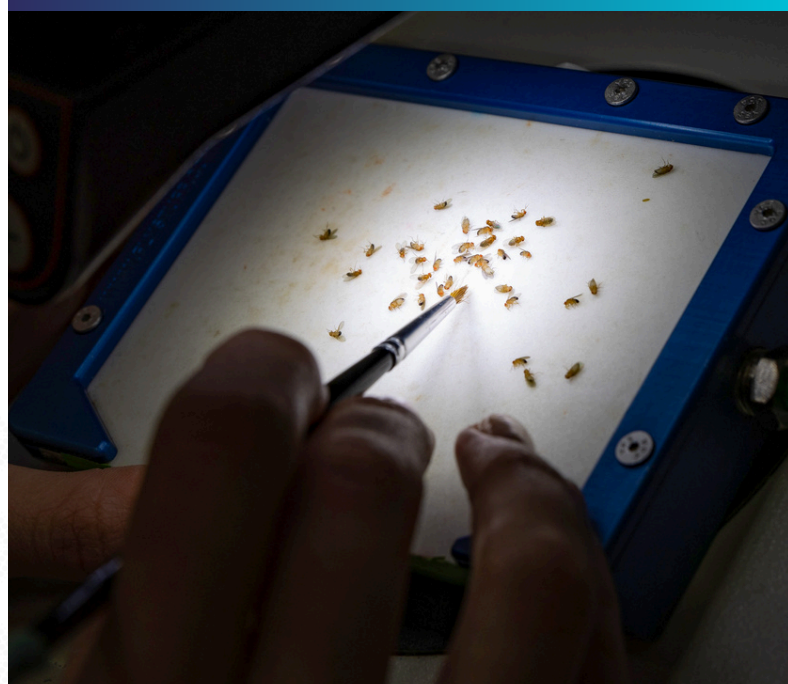
- Mentorship and guidance: each TTI fellow is paired with a clinician scientist mentor who provides regular feedback, professional guidance, and support in navigating career challenges. An external mentor is also encouraged.
- Funding and resource support: access to lab space and resources (research consumables, technician support to be applied for), and core research facilities to enable the growth of an independent research project.
- Networking and collaboration opportunities: regular events, workshops, and conferences to promote collaborations across MRC-LMS and with external partners as well as with other clinician scientists in the Chain Florey programme.



## What does a strong candidate look like?

- PhD and postdoctoral research experience in a research field complementing existing research strengths and strategic focus of the Institute.
- Experience of a clear and credible aim of applying for an intermediate fellowship or other mid-level awards.
- Ability to carry out independent research, working with minimal supervision.
- Excellent written and verbal communication skills with an ability to convey complex information to a wide range of audiences.
- A commitment to Equality, Diversity and Inclusion.

For more details please take a look at the full [Job and Person Specification](#) for the role.



# What to expect from the application process

## 1 Apply

Please apply directly via our [website](#) submitting the following:

- An up-to-date CV, including past scientific accomplishments.
- A 1-page project outline. Proposed projects should demonstrate clear potential for collaboration with at least one LMS research group.

Details of at least 2 referees from at least 2 different institutions.

## 2 Shortlisted

If you are shortlisted, you will be introduced to potential LMS scientific mentors and asked to develop a research proposal of up to 3 pages before interview, which would usually be held within 2 months of short-listing.

## 3 Interviewed

Shortlisted candidates will be invited to a panel interview with a few members of the Chain Florey committee.

You will:

- Give a 10-minute talk on your research proposal, research experience and future plans.

## 4 Offer

The final decision will be made by the interview panel and the offer will be conditional on receiving an Honorary Consultant contract from the Imperial College Healthcare or other NHS Trust.