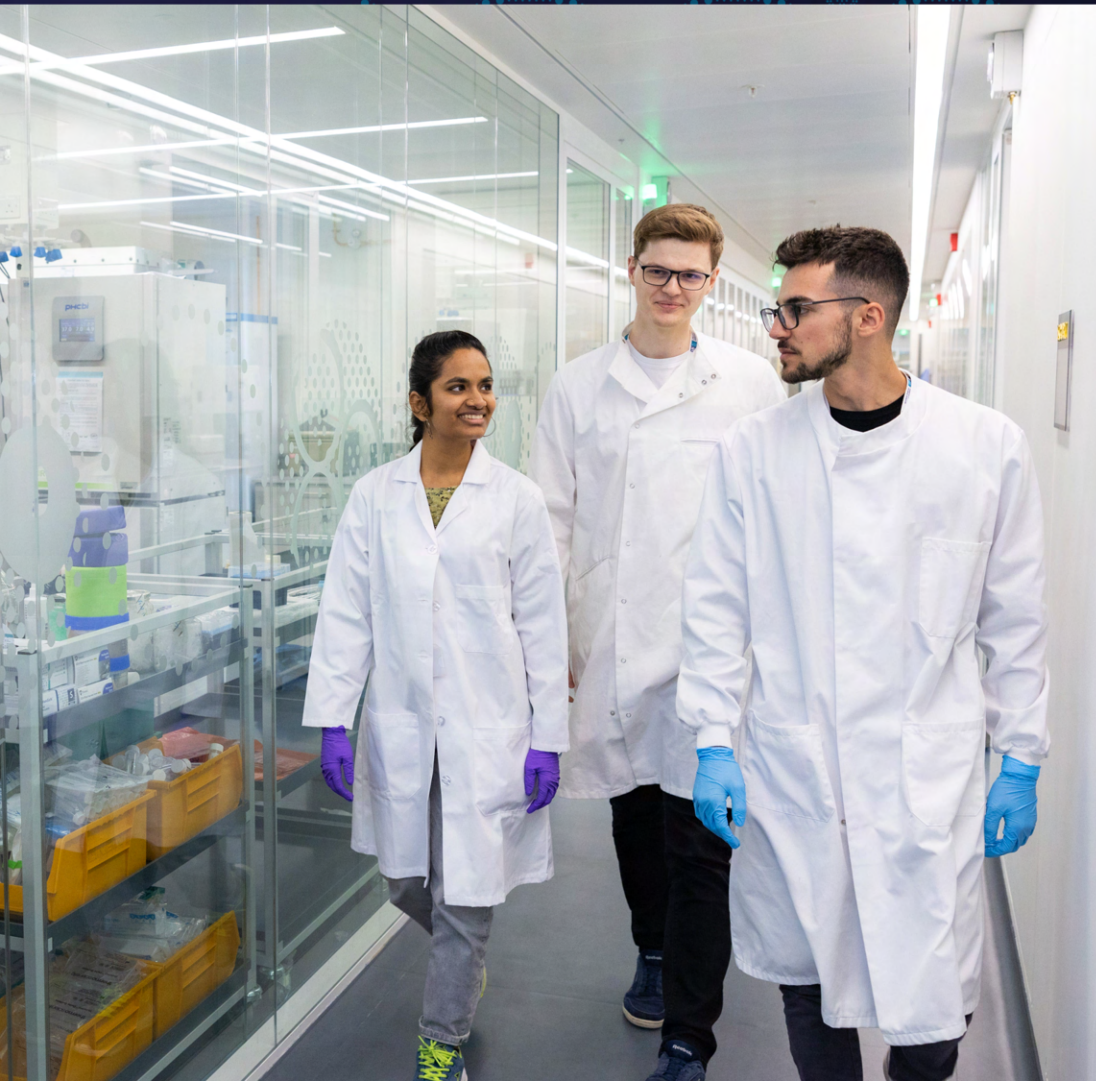




MRC Laboratory
of Medical
Sciences

Science Technology Graduate Programme Handbook



**Apply
now**

Closing date
09.08.26



Medical
Research
Council

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Message from our Director

**Wiebke Arlt,
Director of
MRC Laboratory
of Medical Sciences**



“ Welcome to the LMS! We are thrilled that you are considering our Graduate Programme as your introduction to scientific research

The LMS is a vibrant biomedical research institute that values team science and the breadth of expertise required to deliver world-class research. Our state-of-the-art core facilities are the backbone of our research, providing researchers with expert guidance and instruction, as well as driving innovation through the development of new methodologies.

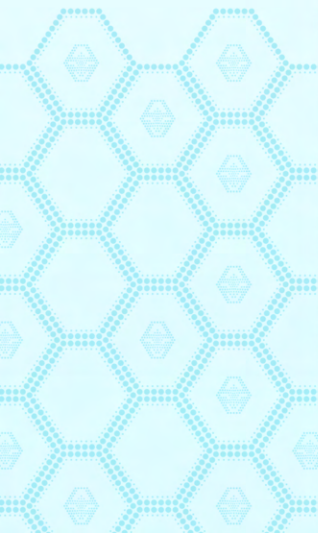
Our core facilities serve as key partners in our quest to push the boundaries of biomedical research, and share these advancements to benefit the wider scientific community. Our Graduate Programme offers an exciting opportunity for you to learn cutting-edge research skills, preparing you for a successful career in science. We are committed to supporting you every step of the way as you embark on this transformative journey towards the next phase of your scientific career.

The heartbeat of the LMS is its people, and our cohort of Graduates will help to contribute to our success and make us even better! ”

Background Information

The MRC Laboratory of Medical Sciences (LMS) is a biomedical research institute where scientists and clinicians collaborate to advance the understanding of biology and its application to medicine. The LMS is core-funded by the Medical Research Council, which provides funding to support around 35 research groups. This funding also underpins eight cutting-edge research facilities and a communications and engagement support team.

The LMS is located on Imperial College London's Hammersmith Hospital campus, and is a key component of the College's Institute of Clinical Sciences. The LMS is uniquely positioned within a rich multi-disciplinary environment, with Hammersmith Hospital and Imperial's White City Campus, NIHR 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.



About the LMS Science Technology Graduate Programme

In 2025, around 30% of biomedical science Graduates secured jobs in science, with the majority venturing into non-scientific careers (source: www.prospects.ac.uk). Moreover, it is becoming increasingly difficult for Graduates without postgraduate qualifications to secure jobs in scientific research.

The LMS recognises the challenges that new science Graduates face, with the lack of opportunities available to them, and is committed to improving this situation. The LMS Science Technology Graduate Programme (Graduate Programme) has been established to provide UK Graduates with an exciting opportunity to increase their scientific knowledge, develop their technical skills, and inspire the next generation of UK scientists. Graduates will be based within our core research facilities, where they will work to progress scientific outputs, develop facility methodologies, and conduct environmental sustainability-related pilots for the betterment of the Institute.

Graduates enrolling on this programme will receive high-quality training in cutting-edge biomedical research technologies, hands-on laboratory experience and a meaningful job, interacting with some of the best scientists in the UK. Besides offering specialist training and practical experience, you will have access to training courses and opportunities that will further your professional development. This programme intends to provide a comprehensive package that will develop aspiring scientists into highly sought after technical professionals, equipped to pursue a career in science.



Introduction to the Graduate Programme

The Graduate Programme offers Graduates an opportunity to learn specialist skills in the field of biomedical science, gain significant work experience and further their personal development.

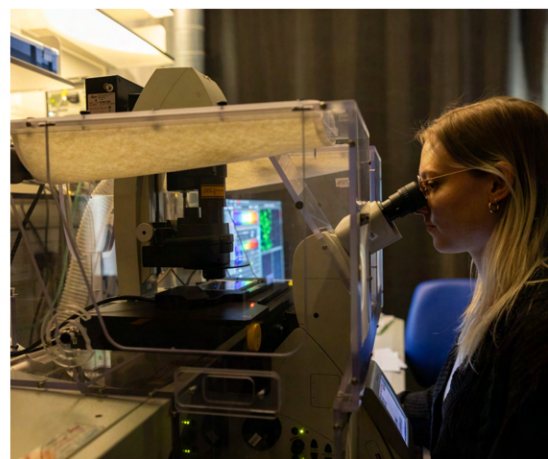
The purpose of the programme is to develop the next generation of promising scientists into technical specialists across the LMS portfolio of research facilities, so that they can progress into academia or industry.

Graduates will be employed on a 2-year fixed-term contract and will receive a salary of £37,476 per annum.

The aims of the Graduate Programme

1

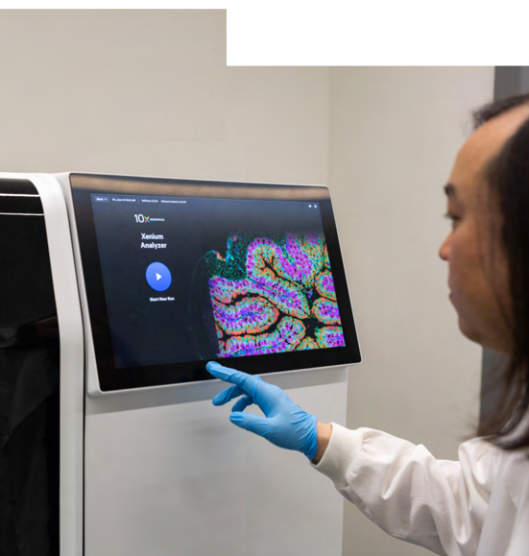
To develop enthusiastic science Graduates into technical professionals with specialist skillsets, primed for successful careers in science.



2

To provide Graduates with high-level scientific and technical training, as well as experience, enabling them to not only contribute to our scientific output but also to sustain and improve the Institute and its core research facilities.

The objectives of the Graduate Programme



To deliver a high-quality, enriching experience for Graduates on the programme, ensuring they feel valued, well supported, and provided with the skills and opportunities needed to thrive, thereby maintaining high retention rates and enabling success in their future careers.

To provide high-level technical training and hands-on experience that enables Graduates to contribute meaningfully to LMS research projects while developing their confidence and competence as emerging scientists.

To teach Graduates how to design and conduct experiments, analyse and interpret data effectively, and resolve experimental issues, thereby building their confidence and competence as emerging scientists.

To promote professional development by nurturing strong communication skills, critical thinking, and emotional intelligence, preparing Graduates for a wide range of scientific and non-scientific careers.

To ensure Graduates gain a well-rounded understanding of the MRC LMS, UKRI, Imperial College London, and the broader UK research landscape, strengthening their awareness of national research priorities and structures.

To support the Institute's environmental sustainability goals by testing innovative products and methods, and improving the efficiency of scientific technologies and practices.

Graduate Programme Overview

The LMS features ten state-of-the-art research facilities which collectively underpin our ground-breaking scientific outputs. Our research facilities offer researchers access to cutting-edge equipment, expertise on highly specialised technologies and applications, and the ability to develop new methodologies.

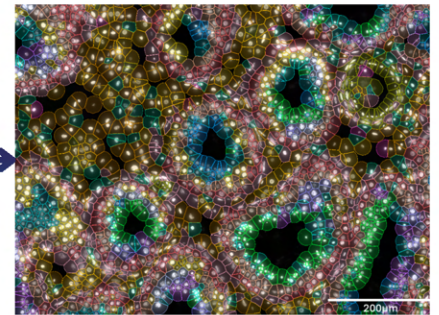
An MRI image of a brain scan, detailing the cerebral cortex, cerebellum, and brainstem.



The volcano plot illustrates changes in protein expression, in monocytes from patients with severe alcohol-related hepatitis compared to healthy volunteers.



Spatial transcriptomics view of an adult human testis with DAPI staining, with cell types grouped by colour.



Bioinformatics

Magnetic
Resonance
Imaging

Proteomics

Genomics

Transgenics
& Embryonic
Stem Cell

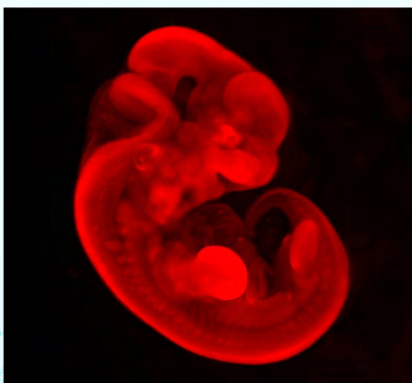
Metabolomics

Whole Animal
Physiology
& Imaging

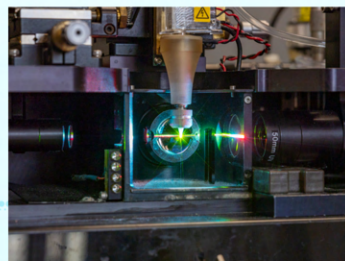
Flow
Cytometry

Light
Microscopy

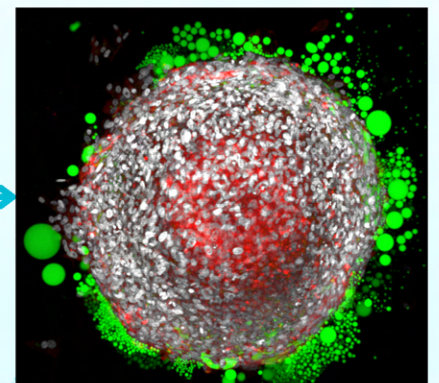
Electron
Microscopy



3D reconstruction of mouse embryo absorbance, acquired via Optical Projection Tomography.



A high-precision flow cytometer using lasers to analyse characteristics of cells in a fluid stream.



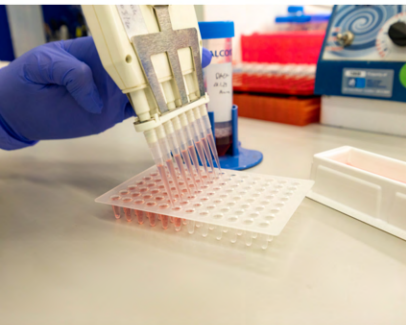
Immunofluorescent image of human adipose tissue organoid with fibrotic transformation. Nuclei - white, Fibrotic tissue - red, Lipid droplets - green.

Our Graduate Programme offers Graduates the opportunity to work in and across our portfolio of core facilities.

Graduate Programme Training

Our Graduate Programme offers a comprehensive training package designed to support both the technical and professional development of Graduates.

Single-Channel Pipetting



Multi-Channel Pipetting

Western Blotting



Coverslip Mounting



Cell Inoculation



Gel Electrophoresis



Cell Culture

Scientific and Technical Training	Soft skills Training
Molecular and cellular lab skills	Time, resources and basic management skills
Computational biology, bioinformatics and statistics	Communication skills including presentations and public speaking
Flow cytometry	Decision making and influencing skills
Microscopy and Histology	Teamworking and networking skills
Genomics, Metabolomics and Proteomics	Emotional intelligence, EDI
Professional Registration with the Science Council	Sustainability in science
Outreach and public engagement	

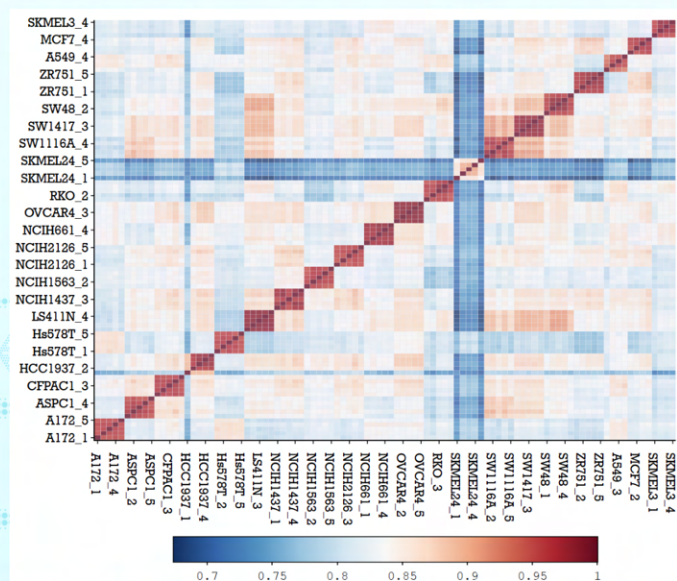
Both lists of training are non-exhaustive. The scientific and technical training lists may vary depending on the projects undertaken by the hosting facility.

Graduate Programme Positions

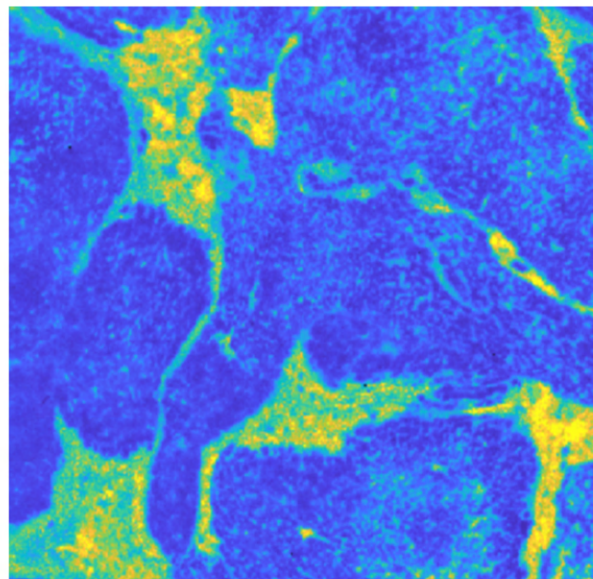
In 2026, we will recruit two Graduates who will be assigned to the following Research Facilities:

Facility 1 – Proteomics

This placement will be led by Dr Keshava Datta. In this facility, Graduates will learn state-of-the-art mass spectrometry-based proteomics, a cutting-edge analytical approach used for the comprehensive identification and quantification of proteins within biological systems. Building on their background in the molecular sciences, Graduates will learn how high-throughput proteomics is applied to study protein expression, post-translational modifications, and cellular signalling networks. Graduates will gain practical experience with sophisticated sample preparation methodologies, high-performance liquid chromatography, and advanced mass spectrometers, alongside the computational tools required to extract meaningful insights from large-scale datasets. This facility will particularly appeal to Graduates who are passionate about analytical biochemistry, cell biology, drug discovery, and translational medicine. By understanding how protein networks drive cellular behaviour, Graduates will see the real-world implications of proteomics in identifying diagnostic biomarkers and defining novel therapeutic targets, offering an exceptional springboard for a career in biomedical research and industry.



Correlation matrix of deep proteomes, demonstrating protein quantification relationships across diverse human cancer cell lines.



Spatial metabolomics on human liver showing specific lipid (yellow) distribution within the fibrotic areas of the tissue.

Facility 2 – Metabolomics

This placement will be led by Dr Mariana Santos and will provide hands-on training in mass spectrometry-based technologies within a collaborative biomedical research environment. Graduates will gain hands-on experience across all stages of metabolomics workflow, from early experimental design and sample preparation through to data analysis and interpretation. Graduates will be trained in analytical approaches to study small molecules including polar metabolites, lipids, and drugs. Graduates will learn how metabolomics is applied across diverse biological systems to study metabolic pathways and capture snapshots of cellular phenotypes, particularly in research areas such as cancer, ageing, and sex differences. Our laboratory houses the latest high-resolution Orbitrap mass spectrometers coupled to liquid chromatography or ambient imaging platforms, alongside a triple quadrupole system and gas chromatography-mass spectrometry instrumentation. This facility will particularly appeal to Graduates who are passionate about biochemistry, analytical instrumentation, lipid metabolism and cell biology. Further, this placement will provide a solid foundation for individuals considering careers in biotechnology, pharmaceutical sciences, metabolomics or wider systems biology.

Graduate Programme Structure

In Year 1

0 – 6 months

Graduates will be assigned to one of the two research facilities and work predominantly in that area. Graduates will be trained on the research facility's equipment, infrastructure, core techniques and technologies, and their applications to research. Also, Graduates will learn how LMS facilities are managed to ensure the provision of effective support to the Institute's researchers. Graduates will embed within the facility structure and network with the previous STGP cohort, technicians and support staff, PhD students, and postdocs.

6 – 12 months

LMS facilities work in close collaboration with one another, and Graduates will have the opportunity to work across them, gaining exposure to a wide range of equipment and technologies to broaden their scientific knowledge and practical experience. Graduates will be encouraged to participate in the LMS technician community activities and public engagement opportunities throughout the programme. Towards the end of this period, Graduates will have gained a good understanding of the day-to-day work practices of their hosting facility.

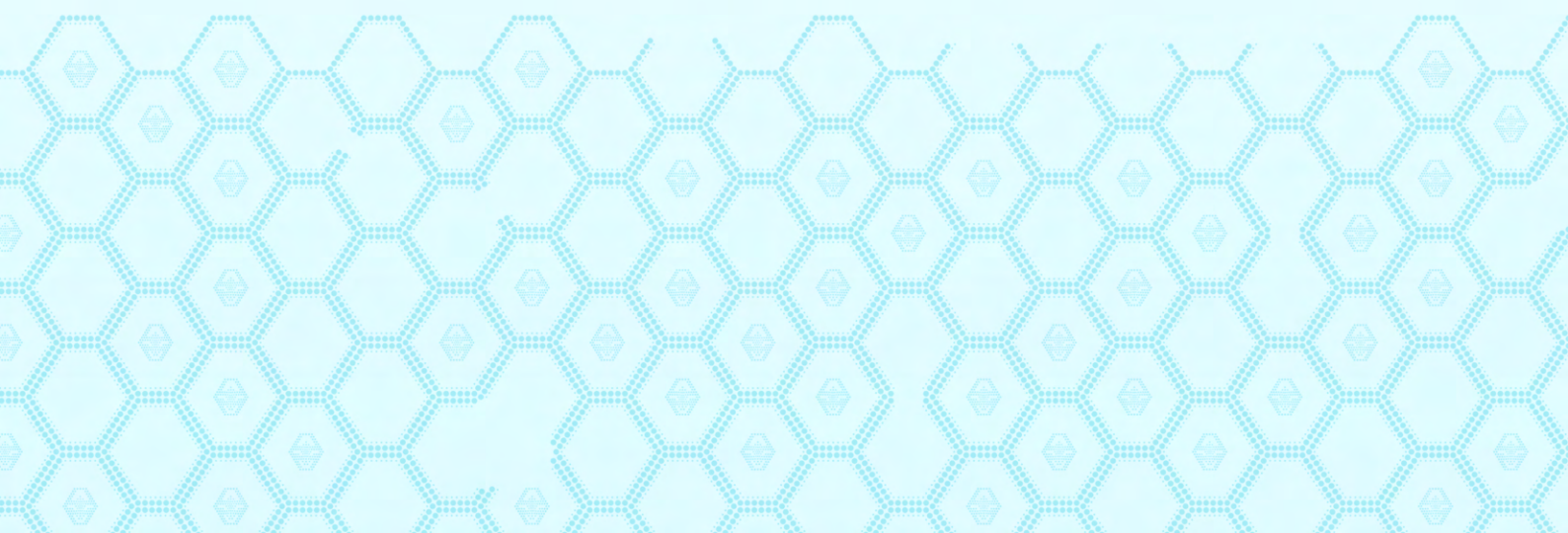
In Year 2

0 – 6 months

Graduates will begin working on a research project aiming to support and further LMS scientific outputs. Graduates will work predominantly in their hosting facility but also interact with multiple facilities and research groups to conduct this research project. Graduates will also participate in developing new methods, protocols and techniques, especially to improve the Institute's environmental sustainability.

6 – 12 months

Graduates will continue to work on the research project undertaken within their hosting facility and prepare a presentation of their work to present to an audience of LMS scientists. By the end of the programme, Graduates will have a solid understanding of core facility work at the LMS and demonstrable outputs from their research project. Making use of these, the Graduates will receive support and guidance in managing their individual career paths and in preparing for positions after the programme.



Graduate Programme Opportunities

Knowledge Exchange Placements

Graduates will have the opportunity to participate in short exchange programmes (1-5 days) with other MRC institutes and UK partners, to acquire specialised skills not available at the LMS.

Events

Graduates enrolling in this programme will become members of the LMS technician community and will be encouraged to participate in technician-led workshops and networking events. These opportunities will include both LMS-hosted events and events organised by our UK partners, such as the Research Institute Technician Group (RITG), the UK Institute for Technical Skills and Strategy (ITSS), and the SPRINGFEST technician festival. Graduates will also be invited to partake in public engagement initiatives such as community engagement events with local schools and libraries and Imperial's annual Great Exhibition Road Festival.



Technician Commitment

The Technician Commitment is a university/research institute pledge to tackle the challenges affecting technicians and technical staff. The LMS is a signatory of the Technician Commitment, therefore we endeavour to:

- Build a network of technical staff who are experts in a wide range of cutting-edge technologies and methodologies, empowering them to adapt and thrive in a world where technology is ever-changing.
- Develop the careers of all technical staff by providing opportunities to attend training courses and networking events and to undertake placements in other institutions to learn new methodologies.
- Ensure visibility for technical staff by making them identifiable on our website and by showcasing their work through internal open days and inter-MRC technician conferences.
- Recognise the contributions made by technical staff in the delivery of world-class research, by ensuring that they receive appropriate acknowledgment for their facilitative role in a research project.

Key Personnel

Graduate Programme Sponsor

Jamie Meredith

The Head of Operations acts as the sponsor for the Graduate Programme and will work to improve and ensure correct implementation of the programme. In addition, the Head of Operations will ensure that the training, pastoral support and developmental opportunities offered to Graduates are of exceptional quality and support their careers and progression.

Key responsibilities include:

- Contributing to the high-quality pastoral support we intend to deliver to Graduates.
- Ensuring that the Graduate Programme's policies and training programme are established and that key performance indicators and assessment methods are consistently monitored.
- Ensuring that the Graduate Programme is structured and organised in a manner that enables it to run effectively.

Heads of the Graduate Programme

Alex Sardini & Laurence Game

The Heads of the Graduate Programme are responsible for designing and delivering our two-year, comprehensive training programme designed to develop our Graduates into technical professionals, prepared for careers in science.

Key responsibilities include:

- Acting as role models to transmit the values, ethos and standards of the LMS to the Graduates on the programme.
- Delivering and measuring the key performance indicators of the Graduate Programme.
- Delivering an innovative, high-quality Graduate Programme that transforms new science Graduates into skilled technical professionals and meets the strategic need of the LMS.
- Designing a two-year training programme that will teach their Graduate the core laboratory techniques of their facility, use of facility technologies and equipment.
- Identifying strategies to continually enhance and improve the Graduate Programme to ensure that it remains highly attractive to new Graduates.
- Informing Graduates of opportunities to further their personal and professional development, careers and understanding of the MRC LMS, UKRI and Imperial College London.

Key Personnel

Graduate Programme Line Managers

Keshava Datta & Mariana Santos

The Graduate Programme Line Manager is responsible for the day-to-day management of the Graduates on the programme, ensuring that they acquire valuable work experience, further their personal development, and have a rewarding experience overall.

Key responsibilities include:

- Ensuring that Graduates are afforded time to attend core training, personal and professional development opportunities as well as public outreach and engagement events with external stakeholders.
- Ensuring that Graduates are effectively managed, provided with sufficient time to settle in and work on research projects as well as enjoying a healthy work-life balance.
- Informing Graduates of opportunities to further their personal and professional development, careers and understanding of the MRC LMS, UKRI and Imperial College London.
- Providing regular constructive feedback to Graduates, ensuring proactive management of Graduate performance and wellbeing.

Science Technology Graduate

The role of our Science Technology Graduates is to engage wholeheartedly in the programme to maximise their experience, take pride in being part of a thriving scientific institute, and be enthusiastic ambassadors of the Institute.

Key responsibilities include:

- Adhering to the standards laid out in the LMS Core Values and UKRI/MRC employee Code of Conduct. This involves conducting work with integrity and creating a working atmosphere based on trust, cooperation and mutual respect.
- Attempting to address any problems or difficulties experienced during the programme and seeking help if need be.

Graduate Programme Mentor

Tyrese Williams

The Mentor of the Graduate Programme will serve as a trusted ally, providing Graduates with a safe environment to express their thoughts, feelings and opinions. The Mentor will hold monthly meetings with Graduates to discuss their wellbeing, progress on the programme and offer advice and support. These meetings with Graduates are confidential. The Mentor should only share meeting details with other Graduate Programme key personnel, if the Graduate has agreed for them to do so.

Key responsibilities include:

- Challenging Graduates to identify gaps in their knowledge and development and supporting them to address these, to engender personal growth.
- Helping Graduates to become independent and reflect on their development/learning throughout the process.
- Listening to Graduates non-judgementally and offering Graduates objective, experience-based guidance for their continuous development.
- Providing Graduates with advice on their long-term professional goals and careers after the Graduate Programme.
- Attending and actively participating in all that the Graduate programme offers: scientific and soft-skill training, events and all other opportunities.
- Contributing to a culture that has equality embedded at its core and one that promotes fairness, diversity and inclusion at all levels.
- Preparing for and partaking in quarterly reviews with their hosting facility head and the Heads of the Graduate Programme.
- Taking a proactive approach to their learning, personal and professional development by identifying areas of weakness and actively working to improve them.

On-boarding

Prior to the programme start date, Graduates will be provided with a Welcome Week timetable. During Welcome Week, Graduates will:

- Complete new starter administration forms and Health and Safety inductions.
- Complete the UKRI mandatory online training courses.
- Receive a tour of the LMS, Hammersmith Hospital and Imperial's Hammersmith campus.
- Receive an introductory presentation and a Welcome Pack.
- Visit the core research facilities at LMS, meet with facility groups, key personnel from the Graduate programme, and members of the Institute's Senior Leadership team.

All Graduates will be subject to a 6-month probation period. Graduates will have quarterly meetings with their hosting facility head and the Heads of the Graduate Programme to monitor progress and ensure that everything is running smoothly.

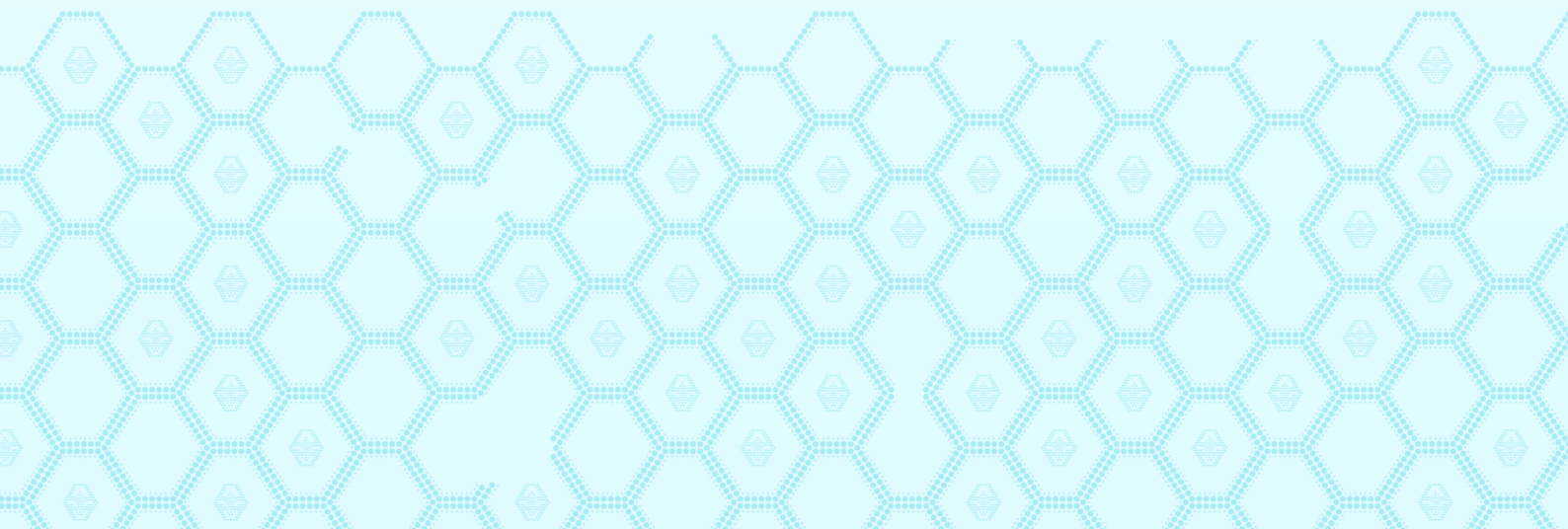
Off-boarding

All Graduates are expected to complete the two-year Graduate Programme to receive its full benefits, and acquire the skills and knowledge needed to excel as technical professionals. Upon completion of the two-year programme the Graduates will be awarded a Certificate of Completion from the LMS. This certification will be a valuable addition to the Graduate's CV, enhancing their future career prospects.

In Year 2, Graduates will receive support in managing their individual career paths and in preparing for positions after the programme, such as support on CV/Statement writing, interview preparation and career planning. Towards the end of Year 2, Graduates will give a presentation to the LMS community showcasing the work they have delivered and reflecting on their time at the LMS. Moreover, Graduates will be encouraged and supported to apply for professional registration with the Science Council to become registered scientists.

All Graduates will participate in an exit interview with People and Culture to provide feedback on the LMS, the Graduate Programme, and the support received throughout their time, regardless of when they leave the programme. After completing the programme, Graduates will be encouraged to join the LMS alumni network so that we can stay connected, follow their career progression and offer them career opportunities. Whilst the LMS cannot guarantee employment for our Graduates upon completion of the programme, there is a possibility of job openings due to natural turnover.

Although we expect Graduates to complete the two-year programme, we understand that there may be circumstances that could prompt early departure. Graduates are encouraged to promptly address any concerns and issues they have with the Heads of the Graduate Programme to find a resolution. Should a Graduate wish to terminate their contract, they must submit a resignation letter specifying the resignation date and adhere to a one-month notice period.



Post-Graduate Programme Opportunities

Graduates that complete this Programme will be well-prepared to pursue a variety of career paths. Here are some potential career path trajectories:

Technical Path (University/Research Institute)

a) Science Technology Graduate → Facility Technician → Facility Specialist → Deputy Facility Head → Facility Head

b) Science Technology Graduate → Research Assistant / Scientific Officer / Research Technician → Laboratory Manager

Academia Path (University/Research Institute)

a) Science Technology Graduate → PhD Student → Postdoctoral Researcher → Early-career researcher / Assistant Professor → Mid-career researcher / Associate Professor → Principal Investigator / Professor

Industrial/Pharmaceutical Path (Organisation/Company)

a) Science Technology Graduate → Research & Development / Manufacturing Sciences & Technology

Please note that job titles vary between Universities and Research Institutes.

Communication and Graduate Programme Profile

The launch, progress and achievements of this Graduate Programme will be publicised using standard UKRI tools and opportunities. Graduates and Facility Heads are encouraged to promote the achievements and experience of the Graduate programme through the various communication channels.

Programme Evaluation

The following key performance indicators will be used to assess the programme and be reported to the Heads of the Graduate Programme:

- Successful completion of the 6-month probation period.
- Quarterly Graduate reviews/appraisals.
- Real-time Questionnaire for Graduate Programme key personnel.
- Feedback from attended training courses.
- Individual volunteering and outreach that raise the profile of the LMS.
- Involvement of Graduate in new innovations.
- Securing employment at the end of the programme (if vacancy).
- Retention statistics on programme and post programme.