

Job Description – Head of Mass Spectrometry Facility

Department	Mass Spectrometry (Proteomics)
Line/Manager Job Title	Head of Research Operations
Grade	BI 4
Salary range	£62,000 to £68,000 per annum
Length of appointment	Permanent
Location	Babraham Institute, Cambridge
Working Hours	Full-time (37 hours per week)

Job Profile Summary

The postholder will provide strategic leadership and oversight of the Babraham Institute Mass Spectrometry Facility and be a recognised leader in mass spectrometry-based proteomics through scientific contribution, professional networks and engagement with community activities.

This is a unique opportunity for an individual with extensive experience in mass spectrometry-proteomics to shape and establish the future operating model of the Facility. The postholder will be empowered to develop and implement operational processes, service delivery models and user engagement approaches, working collaboratively with stakeholders to ensure services evolve in response to scientific needs and user feedback.

Building on significant recent capital investment (including Thermo Orbitrap Astral and Eclipse Mass Spectrometers), the postholder will embed newly acquired technologies and establish the workflows, standards and operating practices required to maximise their impact. The role requires a proactive and collaborative approach, working closely with researchers, technical staff and institutional partners to drive continual improvement, innovation and operational excellence.

The Head of Facility will oversee the delivery of the latest proteomics sample preparation and analysis services, including data-dependent (e.g., TMT isobaric labelling) and data-independent acquisition, enrichment & quantification of various post-translation modifications, and low-input (near-single-cell) sample preparation/analysis strategies. They will be responsible for ensuring that techniques and technologies are optimally deployed to support cutting-edge research across diverse biological applications.

They will proactively engage with Institute researchers to understand current and future requirements ensuring Facility capabilities align with the Institute's strategic priorities in Epigenetics, Immunology and Signalling. The postholder will provide advanced proteomics services to research groups, collaborating on experimental design and driving adoption of emerging methodological advances that enhance research outcomes.

The postholder will deliver a high-quality, responsive and user-focused service, providing advice on experimental design, sample preparation, data analysis and interpretation where appropriate. They will maintain strong data literacy skills and work closely with data scientists, bioinformaticians and other specialists to support analysis of complex datasets. In partnership with the Bioinformatics Facility, they will ensure data and metadata are delivered in accordance with FAIR principles.

In addition, the facility provides support to the commercial bioscience community, on the Babraham Research Campus and beyond, through fee-for-service use, collaborations and consultancies. The postholder will develop collaborations with external academic and commercial partners, enhancing the Facility's impact, visibility and sustainability. They will actively promote the Facility through engagement with relevant national and international networks, conferences and scientific communities.

Key areas of Responsibility

- Scientific, strategic and operational management of the Facility
- Designing and implementing the Facility's operating model, service portfolio and user engagement approach, ensuring services evolve in response to scientific priorities and user needs.
- Driving the Facility's technological advancement through assessment, adoption and optimisation of emerging platforms, methodologies and operational workflows tailored to biological questions.
- Writing grants and business cases for capital investment, then leading the operational integration and optimisation of newly acquired instrumentation and technologies, ensuring their effective adoption and long-term sustainability.
- Advise researchers on experimental design, sample preparation, quantitative proteomics approaches and analytical strategies, including low-input workflows, label-free and labelled quantification methods, and optimisation of instrument acquisition strategies.
- Lead the development and application or adaptation of advanced proteomics workflows, including approaches for quantitative proteomics, post-translational modification analysis and protein interaction studies (eg phosphorylation, ubiquitylation, affinity purification and proximity-labelling methods).
- Making effective use and interpretation of large and complex datasets, working collaboratively with data scientists, bioinformaticians and other specialists to generate insights that support research, operational and strategic objectives.
- Co-ordinating with Bioinformatics and Babraham Institute Computing Service to ensure that all data and metadata from the facility embraces FAIR principles.

Scientific performance and achievements

- Making contributions to and / or leadership of major programmes of research, both within and outside the Institute
- Managing complex projects, working with stakeholders to ensure delivery of output
- Providing expert guidance to facility teams and Institute scientists
- Making sustained, substantial and recognised contributions to their field of expertise



- Maintaining comprehensive and up-to-date expertise in subject area
- Engaging productively with the facility User Group, exchanging knowledge on new technologies and facility advances; responding / adapting to User Group feedback
- Working with the Knowledge Exchange & Commercialisation team and colleagues at Babraham Research Campus Ltd to maximise use of the facility by external stakeholders

Facility management

- Developing a facility strategy that aligns with Institute priorities
- Leading an agile and adaptable Facility that continuously evolves in response to user needs and scientific priorities, developing accessible, user-centred services and workflows that enhance the researcher experience and maximise the impact and uptake of Facility capabilities.
- Ensuring effective financial planning and comprehensive facility oversight
- Overseeing daily operations, ensuring efficient workflow, equipment functionality, and adherence to quality standards and safety protocols.
- Maintaining availability of state-of-the-art equipment, writing grants and business cases where necessary to acquire new capital equipment
- Acting as coach and mentor, and actively developing the people within the team
- Maintaining professional and productive stakeholder relationships at all levels, both within and outside the Institute, underpinned by excellent communication and interpersonal skills
- Participation in outreach / public understanding / knowledge exchange activities
- Perform other tasks commensurate with the role

Person Specification

Criteria	Essential (✓)	Highly Desirable (✓)	Shortlisting (please indicate the specific criterion that can be shortlisted) (✓)
Education & Qualifications			
PhD or equivalent experience in life sciences, such as (bio)chemistry, molecular biology, or a related discipline	(✓)		(✓)
Relevant Experience			
Significant experience working in and running a proteomics-focused Mass Spectrometry facility	(✓)		(✓)
Experience leading significant operational, technological or organisational change	(✓)		(✓)

within a scientific facility or research infrastructure environment.			
Experience designing, implementing and embedding new operating models, service frameworks or ways of working within a scientific facility environment.	(✓)		(✓)
Experience obtaining capital investment and establishing new facility capabilities	(✓)		
Experience managing and developing staff members	(✓)		(✓)
Experience with sample preparation for various proteomic applications (including label-free and isobaric labelling, e.g., TMT, pulse/dynamic SILAC)	(✓)		
Experience horizon-scanning, incorporating, and adapting cutting-edge developments in proteomics (e.g., low-input/single-cell; novel PTM-omics)	(✓)		(✓)
Experience with Thermo Orbitrap (especially Astral or Eclipse) mass spectrometers	(✓)		
Experience with DDA and DIA analysis	(✓)		
Experience of working with large and complex datasets and translating data into meaningful insights through effective collaboration with data scientists, bioinformaticians and other analytical specialists	(✓)		(✓)
Experience with depositing data and metadata into repositories such as PRIDE		(✓)	
Experience with sample tracking/LIMS systems to organise workflows	(✓)		
Experience developing services, collaborations or commercial partnerships that enhance facility utilisation, impact or income generation.		(✓)	
Experience managing budgets and financial planning	(✓)		
Sitting on external committees, panels and / or roles in professional bodies		(✓)	
Excellent communication and presentation skills, including ability to translate complex concepts into lay language and pitch the message appropriately for the audience	(✓)		(✓)
Working with User Group Chairs to plan and run engaging meetings, and responding to feedback	(✓)		

Adopting new technologies, beta-testing new equipment, working in partnership with companies		(✓)	
Evidence of presenting / chairing / organising in external events, eg conferences or meetings	(✓)		
Establishing national / international collaborations or partnerships		(✓)	
Experience establishing and managing relationships with external clients, both academic and from the commercial sector		(✓)	
Knowledge & Skills			
Evidence of interest and suitability for the role (e.g. covering letter has been tailored for the role)	(✓)		(✓)
Excellent interpersonal skills with the ability to communicate with staff at all levels	(✓)		
Ability to work independently and as part of a team	(✓)		
Excellent accuracy and attention to detail	(✓)		
Excellent organisational skills, with good time management	(✓)		
Strong IT skills, including Microsoft Office	(✓)		
Personal Attributes & Characteristics			
Ability to make independent decisions and solve routine problems	(✓)		
Self-motivated and adaptable to change	(✓)		
Empathy with the life sciences work of the Institute	(✓)		
Able to handle confidential information with discretion	(✓)		
Willing to work flexibly at times	(✓)		
Additional Requirements			
Proactive and progressive supporter of equality and diversity	(✓)		