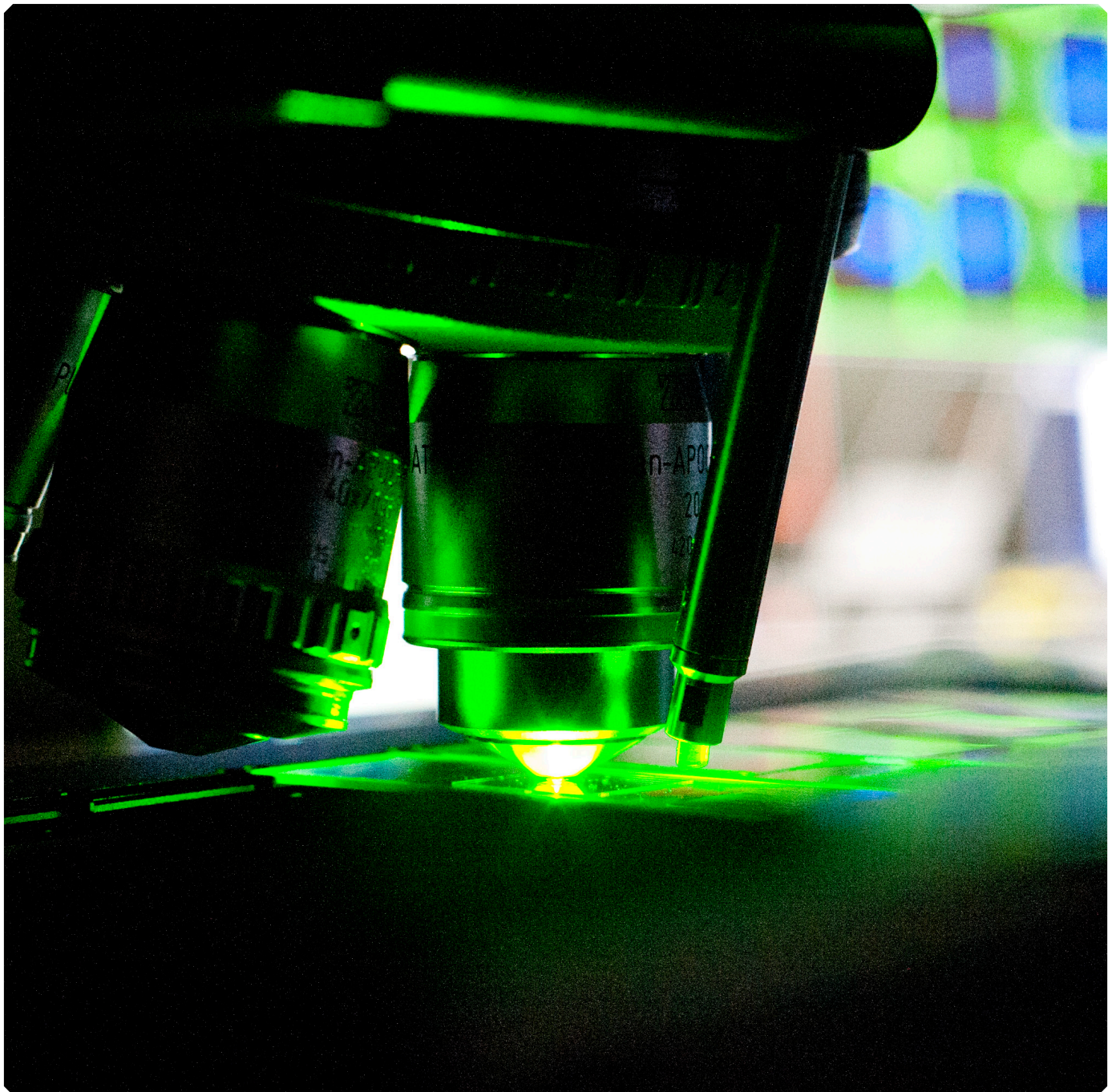


Scientific facilities and expertise at the ICR

A guide for biotech partners on how to
access our cutting-edge equipment





A guide for external users

The Institute of Cancer Research, London, is a world-leading centre for cancer research and industry collaboration. We work with external partners of all types to translate innovative science into patient benefit.

In this brochure you can find information regarding our scientific platforms and technical expertise that can be accessed by external users, including biotech, pharma, diagnostic and other related companies.





The Institute of Cancer Research

The ICR is a world-leading, oncology-focused research and higher education institution with laboratories in Sutton, south London, and Chelsea in the centre of the capital. We are one of the UK's leading academic institutions in biological sciences and in clinical medicine, and have around 1,100 scientists, postgraduate students, technicians and professional staff.

Our research ranges across the full spectrum of oncology from high-quality, fundamental science through translational research and, thanks to a close partnership with The Royal Marsden NHS Foundation Trust, clinical trials of all stages. You can find out more about the clinical capabilities, services, facilities and expertise available at the ICR and The Royal Marsden available for external users and partners in our companion [brochure here](#).



Our Core Research Facilities

The ICR Core Research Facilities listed in this brochure support all research groups at the ICR. They therefore have a wide range of cutting-edge technologies with expert advice, training and supervision or bespoke services to enable and enhance high-quality science. Facility staff work alongside researchers from planning experimental approaches and sample preparation, to developing a training programme and supporting data analysis.

Given the wide user base, the facility staff have broad experience with many sample types and cutting across life science disciplines while also being cancer specialists.

Contact individual facility managers as listed below in the first instance for any query relating to their technologies, or the Head of Core Facilities, Tina Daviter on tina.daviter@icr.ac.uk, for general questions.



How to access us

Equipment access:

Full use of platforms and technical capabilities with expert inductions and scientific support. Our team will work with you to discuss your requirement including access and storage, complete required health and safety assessments and put our standard equipment access agreement in place, if required.

Our comprehensive user induction and instrument training can give you independent access to our equipment and flexibility to book it when needed on a first come first served basis.

Full service:

Research staff will discuss your scientific question and experimental approach and will work with you to outline a work plan for the work ICR will undertake on your behalf.

Using our standard fee-for-service contract, several different work packages can be defined and signed off for separate experiments under the one contract, making this a quick approach to fulfilling your ongoing relationship with ICR.

Setting you up

Please get in touch with the Head of Facility to discuss your scientific need and the available solutions. We may also give you a rough quote at this point. Should you want to go ahead we will ask you to fill in a sample form, for our Health & Safety team to check, and to agree a work package, describing the equipment to access, experiments to do or service to deliver. We will then be able to provide you with a price for the equipment access or service.

Our Business and Innovation Office will set up the contract, to which work packages can be added as your work develops. If you use our equipment yourself, we will give you a full lab induction on your first day, which will include standard ICR safety training to sign off.

For an access fee, you can then be set up on our booking system and issued with an ICR entry access card, or relevant lab access can be added to your card if you already have one.

Flow Cytometry

Our flow cytometry platform offers advanced analytical and sorting capabilities including:

- High-parameter spectral and conventional analysers
- Multi-way cell sorting (usually done in service mode only)
- Immunophenotyping
- Tumour microenvironment profiling
- Cell cycle, proliferation and apoptosis analysis
- Single-cell workflows
- Help with panel design and data analysis options

See here for more information:

[Flow Cytometry Facility - The Institute of Cancer Research, London](#)

Contact: flowcytometry@icr.ac.uk



Genomics

A leading national centre for next-generation sequencing (NGS), offering:

- Whole genome and exome sequencing
- Long-range sequencing (Nanopore)
- RNA sequencing
- DNA methylation profiling
- TCR/BCR sequencing
- Single-cell platforms (10x Genomics and BD Rhapsody)
- Spatial transcriptomics (Nanostring and 10X Visium)
- Specialist bioinformatics pipelines and interpretation

We have state-of-the-art equipment including the NovaSeqX Plus and specialist expertise such as for library preparation from FFPE samples.

See here for more information:

[Genomics Facility - The Institute of Cancer Research, London](#)

Contact: GenomicsFacility@icr.ac.uk



Light Microscopy

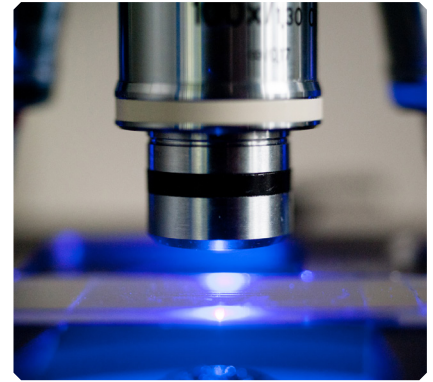
State-of-the-art imaging facilities include:

- Confocal and super-resolution microscopy
- Lattice light-sheet technologies
- High-speed live-cell imaging
- Whole-slide and automated imaging platforms
- Image analysis

See here for more information:

[Light Microscopy Facility - The Institute of Cancer Research, London](#)

Contact: LightMicroscopySutton@icr.ac.uk or LightMicroscopyChelsea@icr.ac.uk



Pathology Facility

This new facility provides important histology services and sample preparation including for some of our more advanced technologies available in the other facilities:

- Tissue processing
- Sectioning
- Hematoxylin and eosin (H&E) staining
- Picrosirius red (PSR) staining
- DNA extraction curls and slides
- Preparing tissue samples specifically for spatial analysis

See here for more information:
(external website in development)

Contact: Pathology.Facility@icr.ac.uk



Antibody Facility

Generation of scFvs against your targets from a highly diverse phage library for use in research, diagnostics and treatment.

See here for more information:

[Antibody Facility - The Institute of Cancer Research, London](#)

Contact: AntibodyEnquiries@icr.ac.uk

CASE STUDY

Flow Cytometry with Curesponse

Curesponse is a commercial-stage precision oncology company. The company has developed a unique genomic-functional personalised cancer medicine platform that evaluates drug response in patient tumour tissues. Curesponse's UK laboratory is based in the Innovation Gateway at The London Cancer Hub.

“We have collaborated with the ICR's Core Research Facilities and their Flow Cytometry team to assist our R&D work, and we are currently planning further collaborations with other teams within the ICR's Core Research Facilities.

“Being located at the Innovation Gateway provides unique opportunities to establish new collaborations to advance cancer care and cancer research, and save lives.”

Dr Sandra Hanks
UK Laboratory Director, Curesponse



Proteomics

A UK-leading proteomics environment providing:

- Whole proteome and targeted MS analysis
- Post-translational modification mapping
- Protein–protein interaction profiling including cross-linking and proximity labelling
- Immunopeptidomics guided by proteogenomics for novel antigen discovery and quantitation
- Bespoke experimental design and computational analysis

See here for more information:

[Proteomics Core Facility - The Institute of Cancer Research, London](#)

Contact: jyoti.choudhary@icr.ac.uk



Biobank

The Biobank runs a sample management service (Royal Marsden- and ICR-sponsored studies only), which is open to external enquiries.

- The Biobank Services can provide lab support for processing blood samples (including Peripheral Blood Mononuclear Cell isolation)
- Biobank Services provide logging, storing tracking and auditing support for all types of research samples.
- Biobank team also manage the generic tissue bank, consenting RM patients to collect blood and tissue
- Can provide cohort building support and project approval for sample access to the generic tissue bank collection.

See here for more information:

[The Royal Marsden Generic Tissue Bank | The Royal Marsden](#)

Contact: biobank@rmh.nhs.uk



Structural Biology

The Structural Biology Division has expertise in molecular structure determination, biophysics and in situ structural biology. We operate state-of-the-art instrumentation for structural electron microscopy in situ and ex situ, biophysics characterisation, and protein crystallisation, which supports a wide range of biological and biomedical research. Our researchers and scientific staff have expertise in characterising molecular complexes and drug-target interfaces. This work can involve extensive customisation and optimisation for a given sample of project.

We welcome access enquiries for trained and experienced scientists with demonstrated proficiency on our instruments, and we welcome enquiries regarding research collaborations.

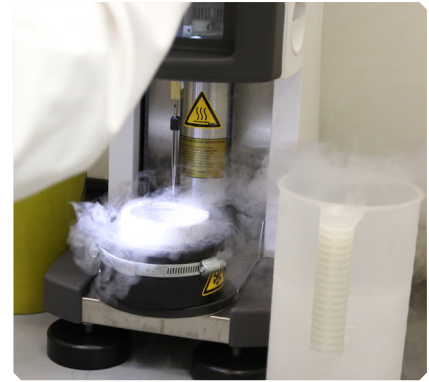
Our facilities include:

- A state-of-the-art 200 kV cryo-TEM [$>700/\text{hr}$, FFI, energy filter, F4i] capable of rapid, high-throughput high-resolution single particle cryo-EM, supported by other instrumentation and a well-equipped cryo-preparation laboratory.
- State-of-the-art equipment for in situ structural biology including cryo-confocal fluorescence microscopy, high-pressure freezing, CEMOVIS and electron tomography expertise.
- Integrated biophysical characterisation platforms for analysing macromolecules, their complexes, and interactions, spanning mass, size, stoichiometry, kinetics, and thermodynamics.
- Robotics for preparing protein crystallisation experiments.

See here for more information:

www.icr.ac.uk/research-and-discoveries/icr-divisions/structural-biology

Contact: StructuralBiologyOffice@icr.ac.uk with subject "Facility access".



Centre for *In Vivo* Modelling

The Centre for *In Vivo* Modelling (CIVM) at The Institute of Cancer Research (ICR) uses state-of-the-art animal and humanised models to study cancer biology and accelerate discovery of effective therapies.

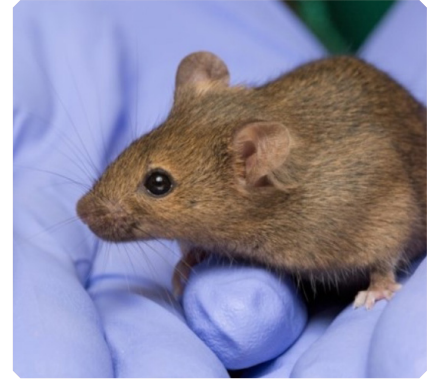
What we do:

- Develop and apply advanced *in vivo* cancer models, including genetically engineered mouse models and PDX (patient-derived xenograft) models.
- Investigate tumour cell behaviour, evolution, and therapy resistance in physiologically relevant systems.
- Validate novel therapeutic targets and support pre-clinical testing of anti-cancer agents.
- Provide expertise in advanced mouse genetics and humanised models to the broader research community.

See here for more information:

[Centre for In Vivo Modelling Service Core](#)

Contact: Fabiana.Muzzonigro@icr.ac.uk



Clinical Pharmacodynamic Biomarker Group

The ICR's Clinical Pharmacodynamic (PD) Biomarker Group has a highly successful track record in developing, validating and providing specialised analytical services to clinical trials and has played an important role in the development of several approved drugs.

The group provides a sector-leading service to pharma, biotech and charity trial sponsors, enabling the successful development of new drugs up to regulatory approval.

The group specialises in measuring Biomarkers in less invasive surrogate tissues such as plasma, serum, platelets, PBMCs and hair follicles, plus tumour biopsies and cultured cells, using technologies including MSD®, Luminex®, LEO™, JESS™, Nanostring, Quantigene Plex and immunofluorescent microscopy.

Contact the Group to discuss your project and see how we can apply our expertise to fully support your needs.

See here for more information:

[Clinical Pharmacodynamic Biomarker Group](#)

Contact: karen.swales@icr.ac.uk





The ICR collaborates with around 100 industry partners at any one time and is ranked among the top universities in the world in industry partnership. Our partners range from smaller spinouts and SMEs to major international pharmaceutical and medtech companies, and across all areas of oncology, from drug discovery and development to diagnostics, imaging and clinical trials.

Each year we start around 20 new industry collaborations based on joint research, as well as hundreds of other agreements with industry partners including material transfer and consultancy agreements.



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