
Training opportunities for research students

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Foreword from the Academic Dean

I am delighted to introduce you to the wide range of training opportunities in research skills available to you as a student at The Institute of Cancer Research (the ICR).

Whilst your primary occupation during your studies is, of course, the particular research project you have embarked upon, it is important to remember the significance of acquiring more general research training and individual skills development during your time as a student here. These skills are critical in enhancing your personal and professional experience as a scientist and promoting your employability.

We expect students to engage in a minimum of ten days of skills training per academic year. Some of the courses in this guide are mandatory, others optional, some taught face-to-face and others online. Your Training Tracker will help you keep a record of everything that you do.

I very much hope you will enjoy the wide range of opportunities set out in this booklet.

Clare Isacke,
Academic Dean



Introduction

The UK Research Councils require that postgraduate researchers develop transferable skills during the course of their studies, and recommend through the Researcher Concordat (vitae.ac.uk/concordat) that research students undertake at least ten days of personal development per year. The Researcher Development Framework (RDF) breaks down the skills you are expected to develop in more detail (vitae.ac.uk/vitae-publications/rdf-related). The ICR's extensive programme of courses, events, and online resources outlined in this booklet will help you to meet these requirements.

Get started

Training Needs Screener

students.icr.ac.uk/trainingneeds

You are encouraged to visit our Training Needs Screener within your first month at the ICR. This tool helps you to identify and prioritise immediate training needs, and selects courses and materials that may be of particular interest to help improve your weaker areas.

Keep a record of your training

Training Tracker

tt.icr.ac.uk

To help you keep track of your professional development, training you book through the ICR's Learning & Development website will automatically be entered into your online Training Tracker. You can also manually enter any online learning you complete, as well as external courses, events and conferences. The Training Tracker may provide a useful basis for discussion in meetings with your supervisor and when preparing a CV.

Introduction

iProgress

iprogress.icr.ac.uk

In addition to Training Tracker, you, your supervisor and the Academic Dean's Team can view your academic progress via iProgress. This system tracks and follows your work towards the key milestones of your degree.

Booking a course

The ICR's face-to-face courses and events can be booked through the Learning and Development website at training.icr.ac.uk. Please note that you must have agreement from your supervisor before booking any of the training courses or events.

Where to go for more information

The majority of our courses and events are organised by the Learning & Development team, whose objective is to provide training and support in the skills outlined in the RDF. Reach them by emailing hrtraining@icr.ac.uk or calling ext. 4556. Support for researchers is directly provided by Elise Glen and Celia Monteiro Domingues, former postdocs at Newcastle University and the ICR, respectively, and Barbara Villarejo Balcells, a former ICR student and Higher Scientific Officer. Their experiences make them familiar with the career development challenges faced by researchers.

Further support is provided by the Academic Services department, who provide e-learning resources and give training in library and literature searching skills. They also organise the induction event that takes place when you first join the ICR.

Mandatory training

This section lists the training courses and resources that all research students must complete; some in the first six months, others within the first or second year.

In your first six months

The ICR provides comprehensive training to ensure that its staff and students are aware of their rights and responsibilities with regard to key areas of legislation. For this, you are required to complete four classroom-based courses and seven online courses within your first six months. You may also be required to complete two additional courses depending on your area of research*. All of these courses can be accessed through the Learning & Development website (training.icr.ac.uk).

Classroom-based courses

Bullying and Harassment (also available online)

Learn how to identify and address unacceptable behaviour in the workplace.

Equality Excellence

Workshop to encourage an understanding of equality obligations and how the ICR responds to these.

Health and Safety

Workshop covering health and safety in the office and laboratory.

Active Bystander training

Workshop to empower staff to challenge poor behaviors.

***Good Clinical Practice (if relevant)**

Training course for those involved in clinical trials.

Mandatory training

Online courses

Data Protection

An overview of data protection legislation, your responsibilities and its impact on your work.

Freedom of Information

An overview of the legislation on Freedom of Information and your roles and responsibilities.

Information Management

An introduction to information management at the ICR.

Information Security Awareness

An overview of common online security issues, such as scams and Identity Theft, and how to protect against these.

Risk Management

This module describes how risk is monitored within the ICR, outlines our policy on categorising and managing risk, and highlights the benefits of using a risk management approach in your own project.

Display Screen Equipment

Health and safety module on safely using display screen equipment.

*Human Tissue Act (if relevant)

Training module for people working with human tissue samples.

Perspectives in Oncology

perspectives.icr.ac.uk

Perspectives in Oncology has been designed to give all new research students an overview of cancer, its

Mandatory training

research and its treatment, bringing everyone to the same level of knowledge irrespective of background. It has ten modules:

- Cancer: causes and prevention
- Tumour genetics
- Common cancers
- An approach to therapies
- Bioinformatics
- Cancer physics
- Basics of tumour biology
- Cell signalling
- Structural biology
- Experimental therapeutics

End-of-module tests assess your progress through the course.

PhD students must score >75% in five end-of-module tests within the first six months, including “Common cancers”, “Cancer: causes and prevention”, and “An approach to therapies”.

By the end of Year 1

Perspectives in Oncology

PhD students are required to pass (>75% score) all remaining end-of-module tests on Perspectives in Oncology by the time of their transfer viva.

By the end of Year 2

Research Integrity

This workshop examines what is meant by research integrity. It looks at the frequency and consequences of scientific misconduct, and gives guidance on how to avoid misconduct in your own work. In addition, the workshop provides a forum for discussing specific case studies to help determine what course of action to take when faced with difficult issues that may arise during a researcher’s career.

Researcher development

The ICR provides an extensive programme of courses to directly support your development as a researcher. Some examples are outlined below, but the full list is available on the training website (training.icr.ac.uk).

Courses and workshops

Science Communication Lunchtime Workshops

The ICR communications team hosts workshops to help researchers develop their science writing, social media, and public engagement skills.

Writing Skills for the PhD and Beyond

Aimed at early stage researchers, this course will help you to write both within and outside academia.

Preparing to Submit Your Thesis

The Registry team and the Academic Dean's team cover the process of thesis submission and time-frames. Recommended to all those in the final years of their degree programme.

Writing and Publishing a Research Paper

This course aims to provide you with the skills and confidence necessary to write a research paper.

Writing a Targeted Grant Application

Learn how to identify funding opportunities, plan projects and finances for proposals, and write persuasively.

Creating Prize-Winning Scientific Posters

Aimed at researchers who wish to improve the way they present data visually, and who want to create eye-catching posters that make an impact.

Researcher development

Presenting at a Research Conference

Develop your presentation skills and gain the confidence to help you present your research to internal and external audiences.

Maintaining Momentum During a PhD

In this course we identify some of the internal and external causes of a dip in momentum and help you to think about strategies to address them.

Good Laboratory Practice (GLP)

An introduction to standards and processes for Good Laboratory Practice.

Managing Research Collaborations

A workshop looking at research collaborations with industry – the practicalities, advantages and issues.

Statistics Course

Four modules delivered by the ICR's Clinical Trials and Statistics Unit, teaching essential statistics skills that may be required in the scientific environment.

Statistics with Oncology

This course aims to present an overview of how statistics are used within cancer research, and to illustrate different statistical methods using examples of studies related to the work of the ICR.

Introduction to R

Aimed at helping you to use the powerful statistical programme R in order to perform basic statistical techniques such as distributions, descriptive statistics, graphics and statistical testing.

Researcher development

Advanced R

Following on from the introductory course, this goes into more detail on filtering and combining complex datasets and also covers areas such as looping, advanced graphing and use of R packages.

Bioinformatics with R and Bioconductor

Aimed at researchers who would like to be able to use R and Bioconductor to analyse genomic data.

Introduction to Bioinformatics (three day course)

This course introduces you to the uses of bioinformatics in cancer research, and aims to empower you to generate your own bioinformatic analyses. It is provided by internal experts including Dr Bissan Al-Lazikani, Team Leader.

GraphPad Prism

The course offers a refresher of statistical techniques and how they can be applied using the GraphPad Prism software. Provided by Dr Anne Segonds-Pichon from the Babraham Bioinformatics Department.

Introduction to Python

This course introduces you to Python code: how it works and how to troubleshoot simple problems, which will begin to give you the tools to start writing your own Python scripts.

Taking the Fear out of Vivas

A session exploring the viva process, aimed at students at all stages of their PhD. Crucial for those preparing their final PhD submission.

Researcher development

How to Peer-Review Manuscripts for Journals

An introduction to the peer review process.

Managing Your Research Project

How to organise time and resources to best achieve project goals. It also explores the nature of project management as well as goals, milestones and risks.

Public engagement

The policy and engagement team are developing a public engagement course for all researchers and students, to begin next calendar year. You can also email the ICR's head of policy and engagement, Eva Sharpe, at Eva.Sharpe@icr.ac.uk, for support and guidance around public engagement activities.

Technical seminars

The PostDoc and Scientific Officer Associations run a series of technical seminars to support students with some of the leading-edge scientific techniques including:

- Real-time PCR
- Flow cytometry
- Cell and tissue culture
- RNAi screens
- Bioassays in drug development
- Structural biology workshop
- Chemistry for non-chemists
- Microscopy & image acquisition
- Pharmacokinetics
- CRISPR
- Chemical structure and reactivity

Online resources

Nature Masterclasses

masterclasses.nature.com/courses/28

An online suite of short modules that provides expertise in scientific writing and publishing direct from Nature journal editors.

Researcher development

Social media guides

tinyurl.com/ICRDigitalComs

Guides for using social media to communicate science, including live event tweeting and dealing with negative comments, can be found on Nexus. You can also email digital@icr.ac.uk for guidance.

Journal clubs

Journal clubs are an opportunity to read and critique recent publications with other students and more experienced scientists; you should attend these regularly. They tend to be organised within specific lab groups, or in wider subject groupings. Ask your supervisors or lab mates for more information.

Practicing communication

Public engagement opportunities

Learn how to build support and enthusiasm for scientific research, inspire young people, or reach out to our local community through public engagement. Opportunities to take part in public engagement activities are shared through our monthly public engagement email and the [public engagement pages](#) on Nexus. Nexus also offers guidance on organizing events.

Science communication prizes

Develop your science communication skills and learn how to share your passion and enhance your reputation by working towards one of our science communication prizes. The prizes include a Science Photography and Imaging Award, a Science Writing Prize and the Public Engager of the Year Award.

Information technology

Learning & Development provides a range of IT training opportunities that are particularly relevant to scientific work. Book a course through training.icr.ac.uk.

Classroom-based courses

Adobe Photoshop

An introduction to Adobe Photoshop that explores how you can use the software to prepare high-quality scientific figures for publications or for your thesis, while doing so with integrity.

Adobe Illustrator

An introduction to Adobe Illustrator that demonstrates how the software can be used to create high-quality illustrations, including scientific diagrams for publications or for your thesis.

Microsoft Word for Thesis

Guidance on writing and formatting your thesis and reports using Microsoft Word.

Microsoft Excel

This training is delivered as short training modules that can be booked individually to cover a range of topics such as relative and absolute referencing, working with chart objects and templates, pivot tables, linking and consolidating workbooks.

Microsoft Access Databases and Spreadsheets

An introduction to database concepts and terminology. How to create a database and store, find, retrieve, and edit using tables and queries.

Information technology

Introduction to HPC and Linux

A hands on workshop introducing you to High Performance Computing (HPC) and the Linux operating system, often used in academia on computer clusters and supercomputers.

Scientific Computing User Forum (SCUF)

This group meets every two months to provide a forum for sharing expertise and advice to other researchers undertaking projects that require computing. Please email hrtraining@icr.ac.uk to be added to the mailing list.

Career development

The ICRs Learning & Development team works with The Careers Group at the University of London (www.thecareersgroup.co.uk) to provide career development opportunities for ICR students. Trained careers advisors (a number of whom have a research background) regularly visit both ICR sites to run skills development sessions and offer one-to-one careers guidance interviews. The advisors also run webinars on key elements of career development. The student careers programme has been, and continues to be, designed based on student feedback, and the student committee is closely involved in the initiative.

The Careers Group events

Skills workshops

These sessions, which usually take place over half a day, look at developing skills to enhance your career prospects, they cover topics including:

- Networking
- Careers outside academia
- Intelligent job hunting
- CVs and interviews

One-to-One With Careers Advisor

A confidential opportunity to talk with a trained careers advisor about any career issues.

Careers Webinars

Live webinars on careers topics run throughout the year and are then available as recordings from the [resources pages](#) in Nexus.

Career development

Internal events and courses

Postdoc Career Conference

Presentations on potential career paths at the ICR and externally, aimed at postdocs and final year PhD students.

Fellowship Applications – an Introduction

Covers writing a proposal from the applicant's perspective, hints and tips from a grant reviewer and essentials when making an application. Register at training.icr.ac.uk.

Clinician career development

The ICR runs the BRC's Clinical Academic Careers Programme which comprises talks and workshops relevant to clinicians as well as talks from funding bodies such as the MRC, NIHR, AMS, CRUK and Wellcome Trust. Please email hrtraining@icr.ac.uk for more information.

The RMH/ICR Biomedical Research Centre (BRC - www.cancerbrc.org) also provides support for clinician researchers including access to NIHR leadership programmes for academic trainees.

Library resources and referencing

The Library and Information Service provides training in accessing resources and reference management.

Scheduled training

Accessing Library Resources

An introduction to library resources available at the ICR, including e-journals, databases and books. This course is scheduled to take place at various points throughout the year, and can be booked through the Learning & Development website (training.icr.ac.uk). Please contact library staff at library@icr.ac.uk for further details.

Ad-hoc training

Please contact library staff directly at library@icr.ac.uk to arrange a one-to-one session covering one of the following topics:

PubMed Searching

General searching tips and an introduction to some of PubMed's advanced features.

Introduction to Web of Knowledge

General searching tips and an introduction to some of Web of Knowledge's advanced features.

Transferable academic skills

The ability to communicate effectively to a wider audience, build rapport with peers and colleagues and manage your time effectively are examples of transferable skills that you will need to develop and master for a successful career as a researcher.

Online resources

Skills

skills.icr.ac.uk

Skills is a website designed to support you in developing your transferable skills. It contains short, blog-style articles written by postdocs, senior researchers and other experts, sharing their experiences and advice. Topics on Skills are arranged into four categories:

- Personal effectiveness
- Communication skills
- Finding and using information
- Science in context

Over time new posts will appear on the site, relevant to the stage of your project. Posts will also be recommended to you at certain times, for example when you are preparing for your transfer viva or writing your thesis. The Training Needs Screener will also direct you to posts on Skills when you first identify your training needs.

Student-Focused Resources on the intranet

The Learning and Development Team provide online training resources on Nexus (tinyurl.com/ICREssentialResources) including a subset of resources specifically aimed at students (tinyurl.com/ICR-StudentResources). These cover thesis writing, viva examinations, and presentations.

Transferable academic skills

Classroom-based courses

Learning & Development offers a number of courses on transferable academic skills. These courses are accessible through the Learning & Development website (training.icr.ac.uk).

Presentation Skills

This practical one-day course covers areas such as delivery styles, visual aids, and preparing and structuring ideas, with the opportunity to practise a presentation and receive feedback.

Project Management

This course covers a range of areas including developing, planning and organising a project, managing risks and project closure and review.

English Language Classes

Weekly sessions for those with English as a second language are offered free of charge – contact hrtraining@icr.ac.uk to enquire.

Communicating Assertively

This course gives you the guidance and tools that enable you to develop your assertiveness, improve your confidence and maximise your contribution to your team's research.

Influencing & Negotiation Skills Training

In order to influence others, and persuade them of your way of thinking, you need to communicate confidently, build a relationship and remain calm under pressure. This course is designed to enable you to be more effective, influential and persuasive at work – through recognising the link between your communication skills and the impact they can have on others.

Conferences, lectures & seminars

A wide range of research lectures and seminars are organised annually at the ICR. Students are expected to attend as many of these as possible. Information about the current programme can be found at nexus.icr.ac.uk/Events.

Conferences

ICR Conference

This annual event is designed to disseminate information about the research taking place across the ICR, and includes lectures, seminars, poster presentations and social events.

Annual Student Conference

An opportunity for research students to meet and share their ideas away from the laboratory environment.

Lectures

Inaugural Lectures

All newly appointed professors at the ICR are invited to give an inaugural lecture on their research careers to date to a general audience.

Grand Rounds

In the Grand Rounds seminars, scientific divisions within the ICR showcase their recent activities to the rest of the ICR and Royal Marsden.

Research lectures & seminars

Link Lectures

The annual Link Lectures celebrate the link between the scientific work of the ICR and the clinical work of the Royal Marsden, and are jointly run by both organisations. In this lecture series, eminent scientists and clinicians whose research has a significant translational element are invited to talk about their life and work. As with inaugural lectures, Link Lectures are aimed at a general audience and all students should find them to be interesting.

Seminars

A large number of seminars are organised throughout the year by divisions, teams and individuals at the ICR. They are often intended for a more specialised audience, but tend to be open to all who are interested.

These seminars are generally advertised through Nexus, the weekly internal newsletter – Inside ICR – or via posters on notice boards.

External resources

There are many resources and courses available from sources outside the ICR; this is a short selection of those that are particularly relevant. For more information and dates about the resources and courses highlighted below please view the external training resources file available at [training.icr.ac.uk/External Training Resources.pdf](https://training.icr.ac.uk/External%20Training%20Resources.pdf).

The Royal Marsden

The Royal Marsden runs some training courses that ICR students may be interested in attending, including Good Clinical Practice training. For specific enquiries contact TrainingandHRAdmin@rmh.nhs.uk.

Vitae

Vitae is a national organisation championing the personal, professional and career development of doctoral researchers and research staff in higher education. Their website is www.vitae.ac.uk.

Vitae provides workshops, courses, case studies, and news on a range of activities to support you in developing your career. The ICR is a member of Vitae, so students can access all the online resources free of charge simply by registering. These resources are all available at www.vitae.ac.uk/pgpr.

Other universities

Many other higher education institutions, including Imperial and UCL, make their researcher training programmes available to ICR students and staff for a modest fee. View the external training resources file at [training.icr.ac.uk/External Training Resources.pdf](https://training.icr.ac.uk/External%20Training%20Resources.pdf) for more information.

Making the discoveries that defeat cancer