ICR The Institute of Cancer Research

Postdoc career development & training at the ICR

Learning & Development and the PostDoc Association

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Foreword from the Postdoc Association Chair

Being a postdoc at the ICR is both challenging and rewarding. With around 150 postdocs at the ICR, we represent approximately a quarter of the ICR's research workforce and cover a diverse range of scientific disciplines. The ICR is a unique organisation with a culture of hard work and collaboration, and I'm sure you'll find your time here stimulating and memorable.

Your postdoc training will be a time of substantial growth as you move towards academic independence: getting your research published, applying for funding, managing and supervising others as well as building your professional network and planning your own next career steps. However here at the ICR there are lots of opportunities to help you progress in these areas and develop the skills you need to succeed. We are signatories of the Concordat to Support the Career Development of Researchers and are committed to providing postdocs with at least 10 days of professional and career development time each year which can be on-the-job training such as gaining grant writing experience or peer review, informal opportunities like mentoring others or taking up formal courses such as supervisor training and academic writing.

I'd urge you to make the most of the opportunities available to you. Don't leave things to the last minute either. It's tempting to wait until the final months to decide what to do next in a career, but it's worth thinking right from the start about how you'll use your time here to enhance your CV both in your research, but also outside. Whether it's developing new technical or computing skills, gaining confidence in giving talks, helping organise events or refining your scientific writing, there is plenty of support to help you on the way. The following pages outline some of that support, coordinated together with the Learning & Development team.

Getting involved in the Postdoc Association is a fantastic way to find out about the opportunities and support available to you, as well as getting to know other postdocs you might never have met otherwise. We meet on a monthly basis at lunch time, so feel free to drop in and find out what we're all about.

Enjoy your time at the ICR and good luck!

Email: pdac-chair@icr.ac.uk

Postdoc Association

The ICR aims to encourage careers in science through promotion of networking, professional and personal development and increasing opportunities in science for postdocs.

Postdocs at the ICR play a pivotal role in both the day-to-day practice of research and to the discovery of new knowledge across virtually every field of Cancer Research. For many, the postdoc experience is a unique and critical juncture in their professional career.

The Postdoc Association (PDA) is dedicated to supporting postdocs both professionally and pastorally throughout their time at the ICR. The PDA focuses on the provision of networking opportunities, personal and professional training, and encouraging both scientific discussion and interaction within and outside the ICR.

You can contact the PDA committee by emailing postdoc-committee@icr.ac.uk.

Aims of the PDA

- assist postdocs in their career development
- provide a scientific forum for postdocs
- provide postdocs with learning and development opportunities
- promote interaction and networking between postdocs and other scientists (at the ICR as well as at other Institutions)
- provide postdoc representation and perspective in key initiatives within the ICR.

Nexus Pages

A central source for information on the activities of the PDA is our Nexus page (find under “Groups”). The PDA uses this web space to upload all committee meeting agendas and minutes, information on events and initiatives that the PDA is involved in. A number of presentations and recordings from previous careers conferences can also be accessed. Nexus > Associations > Post-docs association

Meetings

The PDA Committee (PDAC) meets for one hour at the end of every month in order to discuss the organization of activities and events, the participation at various boards and committees, and any other relevant business. These meetings are open to all postdocs. The meetings are video linked between Sutton and Chelsea and the times and dates can be found on the Postdoc Association Nexus page.

Internal and external involvement on boards and in committees

The PDA has representatives on several boards and committees, with the aim of providing feedback and promoting the PDA agenda. Current boards and committees on/in which the PDA has a representative include the following:

- Academic Board
- Equality Steering Group
- Athena SWAN Silver Steering Group
- Library Committee
- Chief Executive’s Advisory Forum

A full list of committee positions available can be found on the PDA intranet pages.

Travel bursaries

The Postdoc Association (PDA) is able to offer a small number of travel grants (up to £200) to support postdocs traveling to upcoming national or international conferences and training courses. Applications are judged anonymously by members of the PostDoc Association and the Learning and Development team. Preference is given to those presenting their own research and who have not received funding from other sources. Postdocs are notified by email when the call for applications is launched.

Postdoc and student seminar series

Organised jointly by the PDA committee and the student committee, this provides both groups the opportunity to present their work (whatever stage it may be at) in an informal environment for discussion and feedback. You may want to practice giving talks, prepare for a job interview, want to raise the profile of your work and seek collaboration, or feel stuck with an experiment or technique and want advice or suggestions. Whatever the reason, come along and get involved.

Events organised by the PDAC

The PDAC organises social events to facilitate networking and interactions amongst postdocs and scientists at the ICR and other institutions. The events regularly organized by the PDAC include:

Coffee Afternoons
These events are organized on a monthly basis, alternating between Chelsea and Sutton. The PDA Coffee Afternoons are a regular and informal opportunity to meet fellow postdocs, have a chat, network and raise issues with members of the Postdoc Association.

Expanding Networks: scientific discussions between Postdocs and PIs
This initiative was developed by the PDAC to bring postdocs and group leaders together to discuss pertinent scientific issues in an informal environment. The format can vary, but it will typically involve a couple of short talks or panel discussions, followed by informal Q&A and networking sessions over drinks and nibbles.

Postdoc Away Day / Careers Conference
These events are organized biennially and aim to provide career information and networking opportunities. The Postdoc Away Day is a more relaxed event focusing on social activities that promote team building and networking. The Careers Conferences aims to highlight career paths and routes from external speakers who have pursued various career paths since being a scientist. The event often hosts workshops as part of the day that offer advice and guidance for individuals to help achieve career goals.

Summer Parties
These parties are normally organized in July, often with a specific theme. Past themes include the Olympic Games, the Circus and the Tropics. There are two such events organized every year, one at each site and they have been very successful. More recently these gatherings have been organized together with the Scientific Officers Association.

Autumn Cheese and Wine evening
These events provide an opportunity to interact in a relaxed and informal evening. This is a particularly good opportunity to meet newly appointed postdocs. There are two such events organised every year, usually in November, one each site.

All postdoc socials are primarily promoted via email, so keep an eye out for these and if you don't receive them, contact the IT helpdesk to ask to be added to the mailing list.

> "Make contacts with relevant people – speak with them, network. You'll be surprised how many contacts will turn out to be useful –directly or indirectly - at the end of your contract." former PDA Committee member

Training for PostDocs

Below are some training courses specifically of interest to postdocs (A-Z). The full range of face to face workshops available are detailed on the training website. Visit **training.icr.ac.uk** for more information.

Adobe Illustrator
Adobe Illustrator can help you generate visuals to communicate your science to both specialist and lay audiences. In addition, Adobe Illustrator can be used to assemble and label multi-panel figures for publication.

Adobe Photoshop
This course provides an introduction to Adobe Photoshop software and explores how you can use it to prepare high quality scientific figures for publications or for your thesis.

Becoming a Manager - 2 day course
This two day programme is for staff who are relatively new to managing people and want to build their understanding as to what is expected from them and how they can ensure that they have the requisite skills, knowledge and attitude to perform their role effectively.

Careers 1-2-1 with External Advisor
The Learning & Development team organises these 1-2-1 sessions with external careers consultants from The Careers Group (the University of London's careers service). These sessions are free and offered to staff and students. They last approximately 30-45 minutes.

ChIP-seq Analysis
ChIP-Seq is commonly used for a number of related experiments looking at the association of proteins or other marks with parts of a genome. ChIP data is actually one of the more difficult data types to analyse and interpret. In this course we go through the entire process of analysing ChIP data, from raw sequence through to differential binding analysis. We cover many different types of ChIP and go through the issues of mapping, peak calling, filtering, quantitation, normalisation and differential analysis as well as looking at a large number of ways to visualise and check results.

Effective Research Degree Supervision
This one day workshop explores ways in which PhD students and other postgraduate research students can be best supported academically and personally to achieve success in their studies in a timely manner. There will be lots of opportunity to debate and share views whilst considering the most appropriate responses to difficult supervisory situations and common problem situations.

English Language (for non-native speakers)
This course covers the rules and practical application of the English language to enhance your vocabulary, grammar and overall communication skills. There is a pre-course assessment for applicants to ensure everyone in the course has a similar level of English competency. The course is delivered in 10-week blocks with participants committing to attend at least 8 of the 10 sessions.

Fellowships – An Introduction
This session will be chaired by a senior member of Faculty and will introduce you to fellowship applications.

Genomics with R
This course will train participants in the use of R to analyse genomic data. It is aimed at biologists, bench scientists and clinicians who work with genomic data and would like to be able to analyse it themselves and gain a better understanding of the work of bioinformaticians who use R and similar software.

Getting the most from your people
Successful managers put a lot of thought and effort into working out what motivates individual team members and the overall team. They then apply a range of different techniques to each circumstance and person.

Insight into Peer Review of Journal Articles
This course provides insight into the peer review process for journal articles, including tips on reviewing papers as quickly, efficiently and accurately as possible. The insight also allows delegates to put themselves "in the shoes" of the reviewer, to help and support in the preparation of high quality journal articles for publication.

Introduction to Biological Big Data
This course is designed to familiarise researchers with some of the central tenets of transcriptional and translational regulation, and to show you the databases which store pertinent information, techniques used for collecting relevant data, and data repositories of publicly available data which you may find useful. There will be some practical aspects to the course where you can explore some of the sites and databases shown, but more detailed knowledge would ultimately come from pointers to more specific follow-on courses which you could attend at a suitable point in the future.

Introduction to LaTeX
LaTeX has become the industry standard for technical documents across the sciences - capable of producing articles, letters, books, slides and posters which are standardised, aesthetic and clear. Typesetting is also a widely transferable skill beyond academia. This workshop introduces you to the key concepts which underlie the LaTeX language and its various uses, and guides participants through the creation of a simple document template which can be used as the basis for their future articles.

Introduction to Python
The course teaches the fundamentals of programming with Python and you will learn about the basic building blocks of the language and work with simple examples using the Jupyter notebook environment.

Introduction to Statistics with Prism (2 days)
GraphPad Prism is a powerful and friendly package which allows you to plot and analyse your data. This course acts not only as an introduction to Prism, but also goes through the basic statistical knowledge and a more in depth look at statistical analyses using GraphPad Prism which should allow you to make the most of your data.

Managing and coaching for high performance
This one day programme seeks to build the skills of managers to develop their teams through effective coaching. This will help to equip them to both tackle underperformance and build on high performance.

Masterclass on Establishing Strategic Priorities and managing personal time
This 2½ hour workshop is designed to explore and address issues around managing time optimally and introduce a number of 'tried and tested' approaches for dealing with them. We have introduced this approach to dozens of people from a wide variety of organisations and many have reported that as a result they are able to operate more effectively, confidently and with impact.

MS Access
This introductory course consists of four sessions covering the following topics: Access Database concepts, Access Forms, Access Queries and Access Reports

MS Excel
A series of short courses covering using formatting, wrap text, borders, freeze panes Autofill Formulae: Division, Subtraction, Addition, Multiplication Functions: Autosum, Max, Min, Count, CountA and Headers and Footers. The 4 sessions are 75 minutes each across one full day. Staff can attend 1 or all 4 sessions.

MS PowerPoint
A series of short courses covering PowerPoint basics, Common tasks and advanced actions. The 4 sessions are 75 minutes each across one full day. Staff can attend 1 or all 4 sessions.

Networking skills for scientists
A recent survey by LinkedIn showed that 85% of critical jobs are filled via networking and last year the Wall Street journal found that between 60% and 90% of jobs are advertised informally through people's networks. This makes networking a significant key to your job search.

New postdocs – what you need to know
This short informal session provides a chance to meet other new postdocs outside of your team over lunch

Presenting at a Research Conference
This workshop is a great opportunity to learn the skills and techniques for delivering confident presentations. We will begin by exploring the basic components of communication including the effective use of your voice and the power of body language. We will cover planning for your meeting, structuring the content and preparing to deal with questions.

R – an Introduction
This course, provided by Babraham Bioinformatics department, aims to introduce R as a tool for statistics and graphics, with the main aim being to become comfortable with the R environment. It will focus on entering and manipulating data in R and producing simple graphs. A few functions for basic statistics will be briefly introduced, but statistical functions will not be covered in detail.

R – Advanced
This course follows on from the introductory course. It goes into more detail on practical guides to filtering and combining complex data sets. It also looks at other core R concepts such as looping with apply statements, using packages and advanced graphing. Finally it looks at how to document your R analyses and generate complete analysis reports.

Research Integrity

This interactive session looks at the issues and practicalities involved in ensuring your research meets the highest ethical standards. There will be a panel of experienced researchers from a variety of disciplines there to offer advice and their own experiences.

RNA-seq analysis

RNA-Seq is one of the most common sequencing technologies and is widely used for the measurement of gene expression. In this course we go through the entire pipeline of processing, quality control, visualisation, quantitation and differential expression analysis for a typical sequencing experiment. At each stage we discuss the choices to be made, and the problems you might encounter. The course is an even split of theoretical and practical material where you will have plenty of hands-on time with real sequencing data.

Scientific Figure Design

The aim of this course is to make people think more critically about the way they construct figures for papers and presentations. It is not a course which teaches you how to draw plots in a given program or language. The course provides an introduction to basic data visualisation theory to demonstrate the scientific reasons that some plots work better than others. It also takes in elements of design theory to show how to make plots which are easier to understand and more visually pleasing. Many examples are used to illustrate the difference between an effective and pleasing plot and one which doesn't work well. The latter part of the course introduces a bitmap editing program (GIMP) and a vector editor (Inkscape) which can be used to draw, modify or composite figures for publication.

Statistics for Researchers

This course consists of separate modules which all have a distinct focus. Delivered by ICR's Clinical Trials and Statistics Unit, sessions follow on from one another, building on knowledge gained in previous sessions - so you will get the most out of it if you're able to attend all sessions. Optional review/clinic sessions are run every three weeks to recap on the previous three sessions.

Choice of tests (for categorical and continuous data)
Descriptive statistics
Measuring association between variables
Regression modelling
Sample size calculations
Significance tests and p-values
Study designs
The normal distribution and sampling
Time-to event endpoints and survival analysis

Technical seminars

A rolling programme of topics including Chemistry for Non Chemists, Bioassays in Drug Development, Introduction to Structural Biology, RNAi Screens, Practical Flow Cytometry and introduction to tissue culture.

The Essentials of Leading a Team

This one-day course is focused on the role of the manager in leading a team. It will explore some of the key management skills that underpin the delivery of successful Team Science, such a shared leadership, effective conflict management and constructive collaborations.

Academic Writing

This modular course aims to provide individuals with the skills and confidence necessary to write a research paper. It is made up of 4 parts which can be booked onto separately: Starting to Write, The Fundamentals of Academic Writing, Writing a Thesis and Writing a Paper

The Conference & Training Care Support Fund

The Conference & Training Care Support Fund is designed to support parents and carers to attend conferences and other career development opportunities. The Fund is aimed at providing support for staff and students whose childcare/care costs would otherwise stop those attending conferences, training courses, or other career development activities.

Application form and guidance can be found on Nexus at
Nexus > Staff essentials > Pay and benefits > Work-life balance > Family friendly support

How else can I develop my skills and career at the ICR?

Opportunities for PostDocs

There are a number of other initiatives and opportunities for you to get involved in which will enhance your CV and hopefully add to your ICR experience:

Science Communication bite-size lunch time talks

This series is delivered by internal ICR trainers who work in the Communications Team. The list of themes covered include how to make your research more visible through social media, and how to improve science presentations through storytelling.

Teaching opportunities

Given the lack of undergraduates and hence teaching opportunities at the ICR compared with other universities, the PDA seeks to provide opportunities for postdocs to develop teaching skills where they can. A number of postdocs provide short training seminars in key techniques or topics in their field of expertise. These seminars are opened ICR-wide and are supported by the L&D team. Topics include Introduction to Tissue Culture, Chemistry for Non Chemists, Introduction to Linux. Postdocs who are interested in providing a training seminar on a topic of interest can contact Learning & Development.

ICR also participates in the STEM Ambassador scheme which provides opportunities for researchers in STEM subjects to give talks or lessons in schools and participate in outreach events. Details can be found on Nexus.

Writing opportunities

If you'd like to refine your scientific writing skills, there are many opportunities to do this at ICR. There is the annual Mel Greaves science writing prize, the chance to write for the ICR science blog, and to contribute to the online Skills website which provides information for students on all aspects of life in research.

> "I wish I'd realised earlier that there are plenty of opportunities for public engagement science writing at the ICR - for example contributing to the ICR blog. But you have to go and find the opportunities; they won't just fall into your lap." – Former PDAC member

Careers support for postdocs

Members of the L&D team are trained in running careers one-to-ones and discussions, giving CV feedback and arranging mock panel interviews. You can contact the team at any time to arrange these or discuss your options (training@icr.ac.uk). Members of the team are qualified in psychometrics such as Myers Briggs and coaching, this may be available (email to enquire).

The Careers Group consultants

The ICR also provides access to external, impartial careers advisors from the University of London careers consultancy, The Careers Group. The careers advisors who work at ICR either have backgrounds in scientific research or have worked with a number of similar organisations such as CRUK and EMBO. They provide one-to-ones and careers skills workshops and webinars. Look out for these on the training website. Topics include:

- Networking skills for scientists
- CVs
- Careers Health Check for Researchers
- Making the most of careers conferences and fairs
- Creating prize-winning scientific posters
- Intelligent job hunting

ICR postdoc and alumni LinkedIn group

The PDAC has created a postdoc and postdoc alumni LinkedIn group to facilitate networking between current and former postdocs. This is a great way to see where former postdocs have gone in their careers after leaving ICR. You can request to join, as long as you have a LinkedIn profile.

Careers webinars

It's not always convenient to attend workshops during the working day so wherever possible webinars are recorded and made available on Nexus under Staff essentials>Resources.

Aiming for an independent academic position

Pathway to Independence

Many Postdocs face numerous challenges when they are looking to make the transition to independent group leader. In 2013 the PDA committee and Learning & Development joined collaborators from the BBSRC (now part of UK Research and Innovation) and The Wellcome Trust Sanger Institute to develop a programme of support for top postdocs hoping to make that career step. Speakers included eminent UK scientists and junior group leaders who recently made the transition who shared their experiences. The programme is offered on a biennial basis. Information on the programme can be found by emailing training.icr.ac.uk

Advice from a junior ICR group leader

We asked our newly recruited career development faculty (CDF) for their advice on successfully navigating a postdoc career and establishing as an independent researcher. Their advice includes:

1) Enter a top lab/ institution with a very helpful supervisor. My supervisor was always available for discussion and to provide feedback. They encouraged me to try other approaches and use all the resources available.
2) Determine my scientific question and the experimental approaches very early on during my postdoc (within the 1st year). You need to find your niche and get familiar with the previous approaches and results. Optimise the approaches you think should be essential to assess the biological/ clinical relevance of your setting/hypotheses.
3) Be global. I used alternative approaches, novel views from other cancer related topics (bioinformatics, biophysics, etc…). Maximize your outputs by considering new tools. Feed from fellow postdocs.
4) Work hard and learn fast. 4-5 years go really fast. Design your approaches to give you straight answers.
5) Have contingency plans set up throughout your postdoc. Try to start with 2-3 projects that could interconnect if necessary. If the priority project works fine, you will be able to follow other projects further down your career. In order to decide which project to follow at any given time, follow your instinct but feed it with multiple opinions.
6) Find quality time with your supervisor. Try to use that time accordingly – prepare it in advance, especially the things that worry you. Think global, not just the current/next experiment but also 6 months down the line.
7) Engage in scientific discussions with your fellows – either within your lab or from other labs. Participate in any event that would allow your scientific reasoning to be developed – seminars, talks, conferences…”

External support available to postdocs

Across London there are a number of universities and colleges which also provide training and career development opportunities. The bigger universities may run a wider selection of courses or run them more frequently.

Royal Marsden Hospital
RMH runs a number of courses for corporate and other staff which ICR staff can access for free. To view courses available, log in to the RMH intranet via the link on Nexus and visit the HRFirstpoint > Learning and Development pages or email askHR@rmh.nhs.uk.

Imperial College Postdoc Development Centre
www.imperial.ac.uk/staffdevelopment/postdocs1

Imperial run a number of courses and events for postdocs, including an "Introduction to Teaching and Learning" and an annual fellowships event.

King's College London researcher development programme:
http://www.kcl.ac.uk/study/pg/school/RDP

UCL staff development
http://www.ucl.ac.uk/hr/od/research

Vitae (a national organisation that champions the career development of researchers)
www.Vitae.ac.uk

Vitae host a website providing a large source of career development information for researchers in academia. The also hold regular events that are often free to attend.

Commercial training providers (most provide ~50% discount for charities)
Reed Learning: www.reedlearning.com
Kaplan Hawksmere: www.hawksmere.kaplan.co.uk
GBS Corporate: www.gbscorporate.com

Learning and Development Team

Who do we work with?

The following groups/organisations are involved in the ICR's researcher training and career development programme:

- Staff associations (Scientific Officer Association, PostDoc Association, Student Liaison Committee, Career Development Faculty network and Clinical Academic Forum)
- The Academic Dean's team and Academic Services including Registry and the Research Support Unit
- Group Leaders
- The Chief Executive and senior leadership team
- Data Science Steering Committee
- External collaborators such as The Careers Group careers advisors (University of London), Imperial College London, University College London, Wellcome Sanger Institute, the Biotechnology and Biological Sciences Research Council, Cancer Research UK and the Babraham Institute
- Vitae (a national body that champions career development of researchers)

Contacting us

You can find out more about the activities of the team by visiting the ICR's training website. The website includes a link to download the training catalogue which summarises all the courses available.

http://training.icr.ac.uk

If you have a specific question or suggestion, the team always welcomes your input. Email training@icr.ac.uk