

Getting back into research after a career break



Acknowledgements

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Louisa Tribe and Malcolm Chivers.

Foreword



Supporting researchers throughout their careers is at the heart of our funding philosophy. We believe that breakthroughs emerge when the most talented researchers are given the resources and freedom they need to pursue their goals, and we know that success demands diversity – of people, ideas and approaches. However, different people choose different career paths, so we strive to provide flexibility in the range of research career opportunities we offer. An important example of this is our Research Career Re-entry Fellowships – see wellcome.ac.uk/cref – which offer postdoctoral scientists the chance to re-establish their careers after a substantial break.

Our fellows have told us that the advice they received from people with personal experience of returning to research was invaluable. So we have created this guide in partnership with past and present Research Career Re-entry Fellows. We hope it will be useful for anyone considering taking a break from research, or planning to return to a career in scientific research.

I'd like to thank the Wellcome Trust Research Career Re-entry Fellows for their invaluable work in shaping this guide.

A handwritten signature in black ink that reads "Jeremy Farrar". The signature is fluid and cursive, with a horizontal line underneath the name.

Dr Jeremy Farrar
Director of the Wellcome Trust

A note from our Fellows



This guide has been compiled by past and present Wellcome Trust Research Career Re-entry Fellows. We all have taken a break from research in the past and, thanks to this funding scheme, have since returned to a career in science.

We come from a range of scientific backgrounds, and took time away from research for a wide variety of reasons. Some of us have taken a two-year break, some took 20 years, but what we all have in common is the passion, commitment and drive needed to get back into research.

We have first-hand experience of the challenges and opportunities involved in relaunching a scientific career after a prolonged break. We hope that our tips and suggestions in this guide will be helpful for anyone who is considering taking a career break or returning to research.

Research Career Re-entry Fellows

Christiaan van Ooij

Jess Buxton

Giulia Bigotti

Helen Arthur

Sally Cowley



Prof. Greg Towers's lab at UCL.
Wellcome Library, London

Introduction

A family emergency, a desire to try out a new career, the birth of a child: there are many reasons you might want or need to take a substantial break from research. But more importantly, there is no reason not to. Whatever prompted you to take time out, it's never too late to get back into research. For some it might mean picking up where they left off in a previous position, for others it could be embracing a chance to retrain, or deciding to move into a whole new field of work, and the good news is there are now more grants and fellowships than ever before specifically designed to help people return to research.

This guide has been put together for people who, after a substantial break, are thinking about making the step back into research in biomedical or public health areas, although the advice given here should be broad enough to apply to other fields in science and medicine. The Wellcome Trust provides a Research Career Re-entry Fellowship scheme, and many of the hints and tips in this guide come from fellows who have themselves made the journey back into research.

Looking forward, getting back



Camilla Larsen
Wellcome Trust Research Career
Re-entry Fellow
MRC Centre for Developmental Neurobiology
King's College London

Family matters

My decision to take a break wasn't premeditated or planned at all. I'd just recently become married, and the issue that me and my partner had was that I couldn't become pregnant, which we'd known for a long time. But then, miraculously, I did become pregnant. He was working in one town and I was working in another, and we were faced with this totally surprise pregnancy. It meant that one of us would have to give up our postdoc so we could be in the same place, and at the time my CV was stronger than his, so it was simply a tactical decision because we thought I'd find it easier to take a break at that stage in my career.



Harry White
Wellcome Trust Research Career
Re-entry Fellow
Henry Wellcome Building for Biocatalysis
University of Exeter

A sense of perspective

I wasn't sure I wanted to be a scientist, and it was actually my career break that made me realise how much I enjoyed it, and also that I used to be quite good at it. Before then, I suppose, I just carried on down the career path unthinkingly. I went off and did other things and experienced the wider world. I was out for a long time, seven years, and it helped me realise what a good job doing research is, but that perspective only really came during my break.

One of the overwhelming messages that comes back from people who have applied for a Research Career Re-entry Fellowship is that, when it comes to returning to research from a lengthy career break, the further ahead you plan the easier the whole process will be. In theory, that means starting to think about how and when you will return to research before you have even left, though in practice, circumstances often make our decisions for us, and leave little room for deliberation. What follows is a checklist of things to consider before, or more likely during, a career break that will help make your re-entry into research as smooth as possible.

Finding funding

More and more funding agencies and even universities themselves now have schemes in place to attract talented people back into research and keep them there (see page 9 for examples). Many such schemes require applicants to have at least a PhD and/or several years of relevant work experience, although most have some degree of flexibility.

If you're considering a career break and are sure you want to return to research at a later date, doing your homework on eligibility requirements for re-entry programmes might help you when it comes to deciding when to time your break. For example, giving yourself six more months to publish results or get that little bit more experience before you take a break might stand you in better stead if and when you decide you would like to come back to research.

If you're already on a break and hoping to come back to research, it's important to take into account how long the application and evaluation process can be, and how much time you might need to prepare yourself before you apply.



Grants and fellowships for returning researchers

Wellcome Trust Research Career Re-entry Fellowships

Wellcome Trust Research Career Re-entry Fellowships are for postdoctoral scientists who have recently decided to restart their research career after a continuous break of at least two years, and provide funding for up to four years full-time or part-time (which includes salary, research and training expenses) at an institution in the UK or Ireland. Learn more at wellcome.ac.uk/careerreentry.

Sanger Institute Fellowships

These postdoctoral fellowships help scientists to return to research after a career break of 12 months or more, for any reason. One fellowship will be awarded each year after a competitive selection process, with applications linked to specific projects defined by Sanger Institute faculty members. Fellowships are for three years and can be worked full-time, part-time or flexibly. Learn more at sanger.ac.uk/workstudy/career/fellowship.

Daphne Jackson Fellowships

Daphne Jackson Fellowships offer the opportunity to balance an individually tailored retraining programme with a challenging research project in a suitably supportive environment. They are designed for people hoping to return to research after a break of two years or more, and offer a combination of mentoring, retraining and research that can be based in a university or research institute anywhere in the UK. The scheme is also open to people who may not hold a PhD but have equivalent and relevant research experience. Both the Wellcome Trust and the Medical Research Council also sponsor Daphne Jackson Fellows. Learn more at daphnejackson.org.

British Heart Foundation Career Re-entry Research Fellowships

These fellowships provide an opportunity to re-establish a career in cardiovascular science in an established research institution in the UK, after a break of more than two years. Learn more at bhf.org.uk/research/research-grants/what-we-fund/career-re-entry-research-fello.aspx.

Institutional Awards

As well as awards from external funders, there are an increasing number of schemes available from institutions themselves, aimed at academic and research staff who have taken a career break. For example, the University of Cambridge has recently launched the Returning Carers Scheme, which offers funding to assist staff who have had a period of absence or reduced their working hours to care for a dependant. Learn more at cam.ac.uk/for-staff/news/support-for-returning-carers.

Dorothy Hodgkin Fellowships

This scheme may be suitable for people who have been away from research for a shorter time. These fellowships, administered by the Royal Society, are for outstanding UK scientists at an early stage of their research career who need a flexible working pattern because of personal circumstances such as parenting or health issues. Fellows can hold appointments part-time or convert from full-time to part-time and back again to match work and other commitments, such as parenting or caring. Learn more at royalsociety.org/grants/schemes/dorothy-hodgkin.

Staying in touch

Returning to research will be much easier if you can stay in touch with developments in your field while you're away. The chances are that if you're on a career break, you're doing something that's going to occupy most of your time, whether it's caring for children or trying out an alternative career, but it's still a good idea to keep up some contact with the colleagues you left behind.

Even if it's just an email every few months or connecting through social media, talking with people who are still engaged in research will help you keep abreast of the hot topics and latest developments in your field, as well as keeping you up-to-date on what the recruitment landscape looks like. The longer you've been away from research, the more valuable a channel of communication with former colleagues can be. They can help bring you up to speed on everything from new laboratory techniques to the latest trends for CVs.

Subscribing to journals can also be a useful way of staying informed about the latest advances both in your field and more broadly. Fortunately, with more and more online publications embracing open access, this needn't be costly. However, even if you completely forget about science while you're away from research, it's never too late to get back in touch.



Networking.
Wellcome Images

Unfinished business

While I was on my career break I spent some time planning a book and subscribed to some journals, which meant I kept in touch with my field, which was immunology. One thing that happened that probably planted the first seed in my mind that I had unfinished business was that a theory that I had sort of demonstrated in a very small way turned out to have been right, and that was enormously cheering. So what I had been doing before my break almost seven years ago had actually become more relevant. I felt like I wasn't out on a limb and that spurred me on. *Harry White*



Sally Cowley

Former Wellcome Trust Research Career Re-entry Fellow
University Research Lecturer and Head, James Martin Stem Cell Facility
Sir William Dunn School of Pathology
University of Oxford

Those who can, teach

I had nine years away from the bench whilst raising my three children. During this time I taught biology courses and wrote textbook chapters for the Open University, and also gave tutorials to biochemists and medical students at the University of Oxford. This gave me the part-time flexibility that I wanted at the time. Not only did it enable me to keep up-to-date with research developments, but it also gave me a much deeper and broader appreciation of biomedicine overall, and it prepared me for contributing to teaching when I returned to an academic research department.

Biochemical Society's Stay Connected Bursaries

These bursaries aim to help people keep-up-to-date with the latest scientific developments while on a career break. Learn more at: www.biochemistry.org/grants/stayconnectedbursaries.aspx.

Finding your niche

Two of the most crucial decisions for anyone returning to research are choosing the right field and the right research question. Whether this means returning to your previous area of research or starting on something completely new, it's important to carve out your own niche, and that will mean carefully balancing ambition on the one hand against practicality on the other. The best project will be one that enables you to update your existing skills and is interesting to you, novel enough to relaunch your career and achievable for someone who has been out of the loop for a while.

As mentioned, exposing yourself to as much of the current literature as you can manage is a good way to start, as is getting to as many lectures and conferences as possible (in person or online) to give yourself the best chance of identifying potential sponsors, mentors and projects. You could, if applicable, discuss with your former principal investigator whether it would be possible to transfer your previous project to a new institution, or you might prefer to start in a completely new field.

Plan if you can, don't panic if you can't

As someone who didn't plan at all, to make life as easy for yourself as possible, plan what you're doing very strategically. But, saying that, if things go wrong or don't go as planned it's not a disaster, and there are still lots of ways you can progress. I think it's very important that people, and especially women, don't just give up because they think it will be too hard to get back into research. Yes, you will have some crazy years and you'll work hard at home and at work, but that will ease up and get better and you can do it. But for an easy life, and an easy transition through your career, planning is the key. *Camilla Larsen*

Once you have a project in mind, it's time to think carefully about which institution would be best for your career development and your research. Find out what support they offer in terms of funding and career progression. Look at how well established the laboratory is and at what previous staff are doing now, paying particular attention to whether it has a good track record of staff going on to establish their own independent careers. Make sure you have a good list of questions prepared before you meet with a potential sponsor, and don't be afraid to visit potential host institutions more than once to satisfy your curiosity and lay any concerns to rest.

The criteria used to judge which institution is best will vary from person to person. If you can be geographically flexible, and can consider moving to a new town or city, you might put more emphasis on finding an institution at the cutting edge of developments. Alternatively, if you are less able to move around the country, you might be prepared to be more flexible about which field or department you consider within nearby institutions. Many career re-entry schemes will also cover expenses if you need to travel to learn new techniques or establish collaborative partnerships.

Whatever project you decide on in whichever institution, you should remember that a fellowship will be awarded to you personally, not the institution or your mentor or sponsor: therefore, you should consider yourself as the principal investigator, with the responsibility and freedom that entails. However, you should also ensure you have the right support network in place to help you make the most of that freedom. Some fellowship schemes may require you to identify a mentor as part of your application. Choosing the right mentor is absolutely crucial; you need someone you can trust to provide independent advice and support for the duration of the award (see next page).



Prof. Nancy Papalopulu with junior colleagues in her lab at the University of Manchester. Wellcome Images, London

Choosing the right mentor, and being the right mentee

The terms mentor and research sponsor are often used interchangeably, but each has a distinct role, and each will play a crucial part in helping you to make a success of your return to research. Your sponsor is your enabler: the person who gives you the laboratory space and access to the facilities you need to carry out your research. Often, they will also be your supervisor, overseeing your activities in the laboratory.

Your mentor, by contrast, is the person who will help you define your goals and then advise you on how to achieve them. Their knowledge and experience should help you recognise your own strengths and weaknesses. A productive mentee-mentor relationship requires hard work and trust from both of you, and lots more besides. Here are some of the most important points to consider when seeking out a mentor. For more resources on mentorship, see acmedsci.ac.uk/mentoring.



Jane Skok
Former Wellcome Trust Research Career Re-entry Fellow
Associate Professor of Pathology
New York University

For me, going back into science, I felt very uncomfortable, felt like I knew nothing, couldn't see the wood for the trees, and didn't know what to focus on. Both my mentors were really good at helping me figure out what the most important questions are.

A good mentor:

- is willing and able to devote sufficient time to the mentee, and sets aside enough time for regular one-to-one meetings
- encourages the mentee to define and develop their research niche, and to ask the big and important scientific questions (this does not necessarily mean that the mentor needs to be an expert in the mentee's field, but in particularly esoteric areas this could be an advantage)
- helps the mentee to develop a personal research strategy with specific targets
- helps to establish how effectively the mentee is meeting their research goals and explore any difficulties
- encourages the mentee to specify their career goals, and provides guidance and support in developing a career plan
- is enthusiastic and supportive, but also challenges and gives constructive criticism
- listens to the mentee's concerns
- emphasises the importance of developing independence in research
- encourages the mentee to build an independent network of collaborators.

A good mentee:

- is open to criticism and prepared to learn from it
- is self-reflective and prepared to acknowledge their weaknesses and where they need most support, and is prepared to ask for help
- knows that it is their own responsibility to develop their career, and that a mentor can only guide and support
- puts in the effort to develop and maintain the mentee-mentor relationship – for example, by organising and preparing for meetings appropriately
- knows that their mentoring needs will change as they develop and is open to new sources of advice.



Caroline Formstone
Wellcome Trust Research Career Re-entry Fellow
King's College London

When you're trying to push forward in your career you need people who want to help you succeed. From a mentor's point of view, they have to like you as a mentee. There have to be no conflicts of interest. This is one of the things that the Wellcome Trust Career Re-entry Fellowship has really helped me with, because I was able to choose people I knew from before, who I admired, and who were the sorts of scientists who I knew could help me become a better scientist, and who really wanted to help me to succeed.

Hit the ground running and keep on going



Christiaan van Ooij
Wellcome Trust Research Career
Re-entry Fellow
MRC National Institute for
Medical Research

From the beginning, you need to think about what you want to achieve to set yourself up for the next step. It might not be the romantic idea people have of science, but you have to be realistic. At the end of the fellowship you have to be in a position where you can be competitive. The other thing that's really helped me, and that often isn't given due emphasis, is being able to attract good undergraduates to work for a summer or for an entire year in the lab. If you can train someone to work for you you can get so much more done in the lab. Finally, think of yourself as independent. Don't feel like you're beholden to anybody.

So you've got yourself a project, a sponsor, a mentor, and funding. The next few years will fly by, so it's essential that you make the most of every moment, and that means being prepared before you step through the doors on your first day, and planning what you want to happen once the fellowship is over.

The importance of a good publication record for smoothing your way after your first fellowship or your first post ends can't be overstated (see page 17), and it's never too early to start talking with your mentor and sponsor to devise a publication plan. Start negotiating first authorship or corresponding authorship with your sponsor as soon as possible, preferably before you start on a project. This may not sound like the most pleasant conversation, but having it up front avoids confusion, and ruffling feathers, later on.

Publications aside, there are plenty of other ways you can build up your scientific profile at the same time as identifying opportunities for the future. Attending or speaking at scientific meetings is an important place to start, and a great way to connect with potential collaborators outside your own institution. One of the best ways to get your name out there is to organise or host a meeting at your institution. You can also increase your visibility online: make sure you have your own web page on your institution's website, so people can come to you, and don't be afraid to tweet or blog about your subject or broader issues. Networking sites like LinkedIn can also make you easier to reach and make it easier for you to reach out. The wider your network of contacts and collaborators, the more opportunities will be open to you when you come to move on. The same can be said of your skills base, so take as many opportunities as possible to broaden your experience by attending any training courses offered by your institution.

Don't rush into things

My fellowship is for four years, but the last year will be writing up papers and applying for continuation funding. So from a standing start, I will have to generate four high-impact papers in three years. Once you win the fellowship you normally have up to 12 months to start it, and actually I kind of rushed into it. I heard I'd got it in late November, and started on the 2nd of January the next year. But there were lots of teething problems at the beginning. I didn't actually order any chemicals for three months because of various mistakes in the HR department, and that was wasted time. So I think it's worth taking a bit more time to set things up, after you've won any funding but before you start on a project, to give yourself the best possible chance of achieving your goals. *Harry White*



Jess Buxton
Former Wellcome Trust Research
Career Re-entry Fellow
Institute of Cardiovascular Science
University College London

Don't be afraid to ask for help

I took a ten-year break from research for family reasons, and even though I'd kept up with major developments in my field (human genetics), the prospect of returning to the lab was still quite daunting. On my first day back I had to set up some PCR reactions. The last time I'd used this particular technique we set the reactions up in 0.5 ml tubes, so that's what I did – only to go over to the PCR machine and find out that things had moved on, and it now took 0.2 ml tubes. There were quite a few moments like that in the first couple of weeks, but the help and advice I received from supportive colleagues was invaluable for getting back up to speed.



Prof. Nancy Papalopulu's lab at the University of Manchester.
Wellcome Images, London



Publish to progress

When you're applying for grant funding, fellowships or lectureships, one thing you will certainly be judged on is the quality of your research, as demonstrated by your publications. Being the first or corresponding author on a single paper describing important findings published in a high-quality journal can open doors that would otherwise be closed. Likewise, getting onto editorial boards and writing review articles can help to raise your profile.

These tips should improve your chances:

- Allow good time (up to a year) between the submission and publication of a paper (factoring in timing of submission).
- Find out how many publications (and in which journals) you are likely to need to be returnable by your department for national assessments. If you are working part-time or have had maternity leave within the assessment period, this can probably be offset against the number of publications required.
- Quality of publication is important, so start writing up your research as soon as possible so that it's in the best possible shape when you come to submit.
- Prioritise writing up your own research before you take on any extra responsibilities. Set aside protected time, and be careful not to spread yourself too thin by helping out with lots of other projects. Learn when to say no.
- Be proactive and negotiate authorships and choice of journal in advance with sponsors and collaborators.
- Make sure all your papers conform to any conditions that might be set by your funder, such as a requirement to publish in open access journals.

Taking the next steps towards independence

To give yourself the best possible prospects for moving on after your first position back, early preparation is the key. If you're thinking about another fellowship application, start researching which schemes you might be eligible for, and contact funders at least 12 months in advance. Talk to your sponsor or head of department as early as possible to find out whether they will support subsequent funding applications, and whether bridging funding is available to plug any gaps.

If it's a lectureship that you're interested in, remember that you'll need to have been the first or corresponding author on several good, recent publications to be competitive.

To move to full independence as a principal investigator you should be thinking about building a research group. Recruiting the right people into your group is crucial. The maxim 'your career will be as good as your first PhD student' certainly applies, and having a common goal will help cement a good working relationship between group members.

The Wellcome Trust website contains some longer case studies of current and previous Research Career Re-entry Fellows: see [wellcome.ac.uk/careerreentryfellows](https://www.wellcome.ac.uk/careerreentryfellows). These highlight the diverse career paths that can be taken both before and after a career break and, importantly, the triumphs to look forward to as you plot your own career course.

Taking stock

One of the things that's become really clear to me is that if it gets too difficult to balance work with your other commitments there is no point trying to do two things and doing them badly. You can't go on muddling through. It's not a bad thing to stop, take stock of life and decide what's important. *Jane Skok*



Helen Arthur

Former Wellcome Trust Research Career Re-entry Fellow
Professor of Cardiovascular Biology
Institute of Genetic Medicine,
International Centre for Life
Newcastle University

It's never too late

I took ten years away from research, and when I came back I completely changed fields and started all over again. My original research was in DNA recombination and repair, but when I came back I moved to the genetics of cardiovascular disease, so it was quite a shift. I was completely out of touch because laboratory science had really moved on at pace and what are now considered some really very basic and fundamental techniques had been invented while I was away. But it didn't take long to catch up. There was a lot to learn, but I've always been quite open about asking for help if I'm stuck on something, and I've never ever had someone say that they're not going to help. It's important to work in a helpful and supportive environment.

Useful information

Wellcome Trust resources on flexible research careers:
wellcome.ac.uk/Our-vision/Flexible-research-careers/

Wellcome Trust Basic Science Career Tracker reports: [wellcome.ac.uk/
Funding/Biomedical-science/Career-tracker/Basic-tracker/](https://wellcome.ac.uk/Funding/Biomedical-science/Career-tracker/Basic-tracker/)

Vitae researcher careers resources: vitae.ac.uk/researcher-careers

'Equilibrium: A Physicist's Guide to Managing Career Breaks and Achieving Career Balance': Contact the Institute of Physics – physics@iop.org – for details

Women Returners' Network: womenreturners.co.uk/resources

'Charting a Course for a Successful Research Career: A Guide for Early Career Researchers': info.sciverse.com/ecr_booklet



Wellcome Trust

We are a global charitable foundation dedicated to achieving extraordinary improvements in human and animal health. We support the brightest minds in biomedical research and the medical humanities. Our breadth of support includes public engagement, education and the application of research to improve health.

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