PROFESSIONAL DEVELOPMENT

Adapting to a
non-research career

1. Introduction

There are many job roles outside of research which can allow you to have a positive impact on society. As a researcher, it is useful to be aware of these options because a non-research career can also provide you with fulfilment and job satisfaction.

Furthermore, it is important to maintain your 'career resilience', to allow you to adapt to potential challenges you may face in your career. Developing resilience requires you to be self-aware of your skills and open to new career opportunities. However, a career transition can be complex to navigate. This guide aims to inform you of the steps required to adapt to a non-research career.

2. Non-research careers

As you move further away from a research-based career, you increase the diversity of career options available to you. However, you can increase the amount of research effort you need to undertake in order to understand this career. There is also an increased chance that additional training will be required before you can apply for these jobs although, this is not always the case, if you can apply transferable skills from your research career.

Research roles might include: PhD student, postdoctoral researcher, research associate, research fellow or research scientist. If you decide to move into teaching and supporting research, roles might include: lecturer, teaching fellow, grant advisor or a career in public engagement. You might look to apply your research knowledge in other areas, for example, as a policy advisor, publishing editor, teacher, science writer, patent attorney, laboratory technician or in positions within research councils or learned societies. Transferable skills can also be used in marketing, law, finance and administration roles as well as in not-for-profits and the public sector, or even by starting your own business.

To find out whether you are interested in any of these careers, it is important to do research into them to find out more about what the role entails. Individuals with a background in research often choose the following non-research careers:

Grant advisor

Support and make recommendations on grant applications within a research institution or university.

Laboratory technician

Perform laboratory tests and prepare specimens/samples in non-research environments such as in some industry or clinical settings.

Marketing

Develop marketing campaigns for initiatives or products. This can involve a range of organisations including businesses, charities, governments.
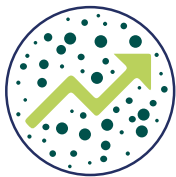
Patent attorney

Lead inventors, scientists or companies through the process of acquiring a patent for a new product or idea.

Policy advisor

Research, gather data and advise governments on policies related to science.

Public engagement practitioner

Support individuals, universities or learned societies on activities which help engage the public with science.

Publishing editor

Raise the profile of a scientific journal and work with authors and peer reviewers to advance publication of scientific manuscripts.

Science writer

Research and write articles on science for journals, the general media and businesses.

This is not an exhaustive list and there are many other career options you may be suitable for which are worth exploring. More information about ways to explore your career options is provided in the section below.

3. Career exploration

Taking steps to plan your career will allow you to make an informed decision about the next steps you take in your professional life and build up your 'career resilience'. Furthermore, it may spark an interest in a career which you had not previously considered.

Career exploration involves three main steps:

1. Becoming self-aware of your skills, interests, values and career priorities
2. Researching your career options
3. Taking action to find out more about a career and support your transition

3.1 Becoming self-aware

Identifying your skills, interests, values and priorities forms the foundation of your career exploration as this information is vital to making choices that give you the best fulfilment and satisfaction from your professional life.

○ Assessing your skills

Your skills are the expertise you have acquired from your professional life. To assess your skills, first make a list of all the skills you have gained from your research career, and any other work you may have taken part in. A useful tool to guide this is the Vitae Researcher Development Framework, a diagram which highlights the skills of a successful researcher. Next, you should evaluate the level of confidence you have with each skill. To do this, you can rate your confidence on a scale of one to five. Try to be objective so you can understand what skills you currently have, and which of these you might want to improve on.

Finally, think about a specific example which you can use to demonstrate your expertise at each skill. This exercise allows you to be assured of the score which you have given each skill and will be useful to refer to when you begin to write job applications and prepare for interviews.

An example of a skills assessment using this approach is provided in Appendix 1. There will also be specialist skills not listed, which are specific to your research career, make sure you adapt the table to suit your own assessment.
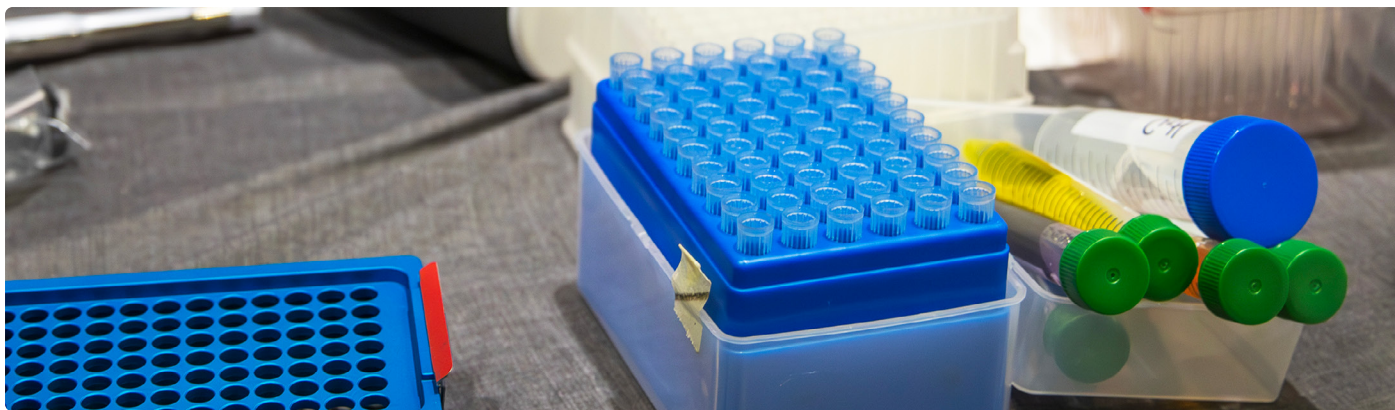
Recognising your interests

Your interests are the activities and subjects you are interested in. Recognising your interests can be useful as you can use this to find a career that provides you with fulfilment. To recognise your interests, you should ask yourself the following questions:

- What activities do I enjoy?
- What subjects do I enjoy learning about?

From this, you can generate a list of your interests. Consider how these might be applied to a career, are there any companies or jobs which could incorporate these interests?

Defining your values

Your values are a set of beliefs which are personally important to you and can influence your decision making. Finding a career that matches your core values can increase the chance that you will find satisfaction with your job. To identify your core values, review the list below and identify those which are important to you:

- Achievement
- Ambition
- Collaboration
- Community
- Creativity
- Curiosity
- Determination
- Empathy
- Equity
- Happiness
- Independence
- Kindness
- Leadership
- Recognition
- Reliability
- Teamwork

You may also want to consider any role models who have inspired you. What are their values, and do you share these values? Your experiences may also be important. For example, have you had a positive experience with leadership or mentoring and are there any values which have been important for your success with this?

You should aim to generate a list of five core values which will help guide your career search.

Identifying your career priorities

Your career priorities are the characteristics of and motivations for a career that you are drawn to, such as a high salary, opportunities for professional development or a sustainable work-life balance. Those which appeal to you, will depend heavily on your interests, values and experiences.

A useful activity to identify your priorities for your career is to review a list of priorities and sort them into 'must have', 'could have' and 'not important' categories. An example of this activity is provided in Appendix 2, but you may want to add your own priorities to the table if they are not already listed.

Once you have finished this activity, you should have a list of 'must haves' for your future career. You should then spend some time reflecting on whether your current job matches this list and if there are any of these you would be willing to compromise on. This list of 'must haves' is useful to guide your career search to find a new career path which matches as many of your priorities as possible.

3.2 Researching your career options

Once you have built a foundation for your career search, the next step is to start researching what options are available. When searching, refer to the previous step and identify whether that career aligns with your skills, interests, values and priorities. There are several methods you can use to research career options:

- Search a collection of job profiles. A good place to start is on the Prospects website, where there is detailed information on hundreds of different jobs.
- Review job adverts and start collecting those which you are interested in. You can search for these on LinkedIn or Indeed.
- Search for people who have graduated from your course or have a similar professional background on LinkedIn to see what careers they are now in. If you are interested in the same career, you can always get in touch with them to find out more about it.
- Ask people in your professional and personal life for advice – what careers do they think you would be well suited to?
- If you are still at university, attend careers fairs. Use this as an opportunity to discover companies and jobs and to network with recruiters.
- If you are still at university, reach out to your careers service for advice. They will be able to provide guidance and career counselling.

Using these methods, you should aim to generate a list of positions which match your skills, interests, values and priorities and which you would be interested in applying for.

3.3 Taking action

The next step is to take actions which will help you transition into the careers you have identified in the previous section. This could involve further in-depth research, gaining hands-on experience or building up your network in this career. The specific actions you may want to consider are:

- Identify individuals who are currently in the position you are interested in. Research their career path to find out what experience and skills they needed to get to the position. Additionally, you can reach out to these individuals to find out more about the position and get advice on transitioning into that career.
- Start to address any skill and experience gaps in your CV. This could be through finding relevant training, internships, work, shadowing or volunteering opportunities to help with applications in the future.
- Make enquiries to any companies you are interested in working for by sending in your CV and a cover letter explaining why you would be suited to their organisation. You can ask to visit them or find out whether there are any current vacancies.
- Update your online presence, including your LinkedIn profile. This is a great way to build a network in your new career. Start to share interesting and engaging content about your professional life.
- Attend events and conferences to help you network in that career path and find new opportunities.

4. Transferable skills

Transferable skills are skills which you have acquired in one setting, which can also be applied to many other settings. If you are moving into a non-research career, these become particularly important as they can be used to demonstrate your competency to employers when applying for jobs.

Consider the activities you have been successful at as a researcher. What skills have you developed whilst doing this? Below is a table illustrating some of the research activities and the skills they may have developed for you:

Research activity	Transferable skills
Analysing data	Problem solving, attention to detail, data interpretation, data visualisation, data management.
Conferences	Networking, presentation skills, communication.
Grant applications	Written communication, budget management, persuasive writing, creativity, project management.
Inter-disciplinary project	Communicating complex ideas to a non-technical audience, collaboration.
Lecturing	Communication, presentation skills.
Mentoring	Leadership, active listening, empathy, providing feedback.
Peer review	Analytical and research skills, critical thinking, giving feedback and support, collaboration, attention to detail.
Public engagement work	Communication, project management, presentation skills, interpersonal skills.
Publishing papers	Problem solving, written communication, data interpretation, analytical and research skills.
Supervising students	Mentoring, motivating others, leadership, giving feedback and support, management experience.
Working on experiments	Problem solving, creativity, using your own initiative, teamwork, adaptability, project management, quick learning, self-motivation, organisation and time management, analytical and research skills.
Working with multiple supervisors	Stakeholder management.

When writing job applications and preparing for interviews for your non-research career, you should look to match the person specification (a list of skills and competencies required for the job role) they have advertised. For each of these, you can use examples from your research activities to prove your expertise for each skill.

A useful format to follow for this is the STAR method:

S	Situation	Briefly outline the context to a specific activity or challenge you faced.
T	Task	Briefly describe your specific task or role in the situation.
A	Action	Specifically outline what you did to overcome a challenge or make the activity a success.
R	Result	Summarise what happened because of your action. If possible, include figures or statistics or share what you learn from the experience.

Remember to be positive about your research experience to demonstrate that you are the right candidate for the position!

Appendix 1: Skills assessment

Skill	Confidence (1 = not confident, 5 = very confident)	Example of when you have used this skill
Written communication		
Presentation skills		
Explaining complex ideas		
Networking		
Active listening		
Problem solving		
Research and analytical skills		
Creativity		
Project management		
Organisation		
Teamwork		
Independent work		
Leadership		
Specialist skill 1: _____		
Specialist skill 2: _____		
Specialist skill 3: _____		

Appendix 2: Career priorities

Priority	Must have	Could have	Not important
Highly paid job			
Respected position			
Recognition – formal awards or informal praise from senior staff			
Commission or financial incentives			
Work-life balance			
Flexible working hours			
Opportunity to travel			
Work that benefits society			
Responsible for major decisions			
Managing a team			
Clear path for promotion			
Use of specialist skills			
Creative work			
Opportunity for problem solving			
Working independently			
Working as part of a team			
Professional development opportunities			
Employer commitment to equality, diversity and inclusion			

Bibliography

1.Vitae. The career-wise researcher 2013; 2013.
https://www.abdn.ac.uk/careers/resources/documents/5503.pdf

2.Higginbotham D. How to choose a career, *Prospects*; 2023.
https://www.prospects.ac.uk/careers-advice/getting-a-job/how-to-choose-a-career

3.Rozenberg T. Career Exploration 101: How to Identify Your Skills and Interests, *LinkedIn*; 2023.
https://www.linkedin.com/pulse/career-exploration-101-how-identify-your-skills-tomer-rozenberg/

4.Royal Society of Biology. Next steps: options after a bioscience degree; 2018.
https://www.rsb.org.uk/images/Next_Steps_Booklet_v2.pdf

5.Indeed Editorial Team. Career Values: How To Identify Yours and Cultivate Success as a Professional, *Indeed*; 2022.
https://www.indeed.com/career-advice/career-development/career-values

6.Stojanovic, M. The STAR Interview Method: How to Answer + Examples. *Big Interview*.
https://resources.biginterview.com/behavioral-interviews/star-interview-method/

MICROBIOLOGY SOCIETY

The Microbiology Society is a membership charity for scientists interested in microbes, their effects and their practical uses. It has a worldwide membership based in universities, industry, hospitals, research institutes, schools, and other organisations. Our members have a unique depth and breadth of knowledge about the discipline. The Society's role is to help unlock and harness the potential of that knowledge.

Microbiology Society   @microbiosoc   @microbiosoc   @MicrobiologySocietyOrg1945   Microbiology Society   MS Microbiology