

# Navigating the research landscape in cardiology. Part 2: finding the right research

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**This editorial series provides an in-depth exploration of research avenues in UK cardiology. It underscores the pivotal role of research in cardiology training and addresses the challenges faced by trainees in identifying apt research opportunities. This second article categorises available research roles, weighing their pros and cons, and outlines various supervisory styles to guide trainees in finding the optimal fit. It also summarises the primary research degrees, namely MPhil, MSc, MD, and PhD, tailored to diverse research goals.**

## Introduction

This editorial series aims to guide cardiology trainees and cardiovascular professionals through the intricate landscape of research. Our objective is to demystify the process, from understanding the role of research in cardiology training, to navigating the practicalities of securing the right research opportunities. In this continuation, we delve deeper into the latter. The second part of this editorial series focuses on finding the right research opportunities in cardiology. Once the commitment to research is made, securing an appropriate post becomes a multi-faceted challenge, often complicated by the stipulations of local deaneries. We will discuss approaches to identifying and connecting with suitable research groups, as well as exploring the different options for research degrees.

## Exploring research opportunities

In the dynamic landscape of UK cardiology, research opportunities play a pivotal role in shaping a trainee's career. These opportunities can be broadly categorised into advertised and non-advertised

roles. Advertised roles, often found on platforms like NHS Jobs or advertised in journals, such as the *British Medical Journal* (BMJ), are publicly posted positions that offer a clear framework and set expectations. In contrast, non-advertised roles often emerge from organic meetings, conferences, or effective networking within the cardiology community. These non-advertised opportunities provide a unique chance for trainees to cultivate mutual relationships and assess compatibility with a potential mentor. They allow for a more personalised approach, with examples including developing tailored grants from organisations like the British Heart Foundation (BHF) or the Medical Research Council (MRC).<sup>1,2</sup> As a cardiology trainee, it is imperative to explore both avenues, harnessing the benefits each presents.<sup>1,2</sup>

However, securing non-advertised roles, such as grants, can be challenging. Trainees in tertiary centres or academic hubs may find more opportunities than those in more remote locations. Furthermore, the rigorous cardiology training pathway leaves little time to search for research openings and interview opportunities. Regional restrictions on time out-of-programme, including a cap on the total time allowed out-of-programme and when this can be taken, may further complicate matters.

The cardiology training framework is demanding, requiring trainees to acquire novel procedural and non-procedural skills and pursue e-portfolio assessments. Balancing these commitments can be overwhelming for trainees. In addition, the unpredictable nature of research opportunities mandates early consideration. The addition of general internal medicine requirements is likely to make devoting time to research planning even more challenging. Networking is also difficult when you are at your most junior and often least confident of your skills and abilities. Networking is a skill that is gained and developed often by the self-assurance that comes with knowing

**Table 1. Pros and cons of advertised research roles**

Pros	Cons
Structured job role and project	Little flexibility to explore other interests outside of described role
Secure salary	May involve moving to a different geographical location
New opportunity to explore new department/team	Unfamiliar team/hospital, therefore, may take longer to build the required rapport to be effective in the role

**Table 2. Pros and cons of non-advertised research roles**

Pros	Cons
Tailored to the individual	Salary can be initially uncertain
Often translated into research grant opportunities and, therefore, a chance to be more creative with the research	May not have research nurse/manager support, which leads to projects being admin heavy
Often created organically	Project and job role less structured and uncertain
Chance to work with a mentor you admire	Might be more difficult to negotiate terms and expectations

your strengths, weaknesses and the kind of cardiologist you aspire to be in future. Thus, while networking is indeed the key to uncovering research opportunities, it is a skill that most trainees develop over time. Advertised research roles offer an accessible alternative, levelling the playing field and reaching a broader audience. This section of the editorial will delve into the advantages and disadvantages of each approach.

### Advertised research roles

Advertised research roles are accessible through various channels, including websites, social media, journals, and professional associations, including the BMJ, as described. The British Junior Cardiovascular Association (BJCA) learning website also lists such opportunities. These positions typically offer structured research projects with predefined outlines and established ethical considerations. While each role may have unique caveats, the overall structure is ensured by feasibility assessments and allocated funding before advertising the position. However, applicants often have limited knowledge about the team, supervisor, location, or hospital, which can pose challenges in evaluating the compatibility of the work environment.

Additionally, these roles may offer less flexibility and customisation in terms of research focus compared with non-advertised opportunities. **Table 1** summarises the pros and cons of these roles.

### Non-advertised research roles

Non-advertised research roles emerge from networking opportunities and organic relationship building with mentors and colleagues, often facilitated by informal events and gatherings. They are often the product of collaborative development between potential supervisees and supervisors. Finding such opportunities can be challenging outside specific geographical areas or large cardiac centres. These roles allow for more creativity and flexibility in research, and provide the advantage of working with a supervisor and team that you are already familiar with. Additionally, these opportunities often align more closely with your research interests and career goals. Other sources of funding may still need to be obtained, while a grant is written and awarded, and starting off with an advertised research role while awaiting another source of funding to be awarded is not unusual in academia. **Table 2** outlines the pros and cons of non-advertised research roles.

## Choosing the right supervisor and supervisory styles

Identifying the right supervisor is a crucial element in research planning. If you undertake an advanced research degree you are likely to work closely with your supervisor for two to four years. In this section, we discuss the importance of finding a supervisor who aligns with your research interests, career goals, and preferred working style. **Figure 1** highlights some of these important research considerations, also summarised in the *British Journal of Cardiology Cardiovascular Research Handbook*.<sup>3</sup>

### Identifying a supervisor

The supervisor holds significant sway over the outcome of the research experience. This relationship surpasses the typical scope of ward or hospital interactions in terms of its depth and duration. Over time, this dynamic connection continually evolves. Opting for the right supervisor shapes your research journey and charts the course of your career advancement. A well-matched supervisor serves as an invaluable source of guidance, expertise, and unwavering support throughout your project.

When seeking out a suitable supervisor, several factors come into play: their research interests, track record, and availability.<sup>4</sup> To pinpoint fitting mentors, delve into their publications, attend their presentations, or explore their departmental websites for insights into their research focal points. A supervisor's reputation and track record also offer valuable clues about their mentoring prowess. Scrutinise their publication history – both the quantity and quality – along with their former students' achievements in academia (including research degree completion and awards, not just number of publications). Engaging with peers and participating in conferences can shed light on a potential supervisor's standing within the field. It is important to keep in mind, however, that a prominent academic status does not always guarantee excellence as a mentor.<sup>5</sup> Recent students also offer a good source of information on a supervisor, and it is advisable to meet with at least one recent student to get an understanding of the supervisor outside of their direct research outputs.

Figure 1. Areas to explore when finding research



and broader goals is essential. Likewise, comprehend their expectations of you to preempt any discord. Such candid exchanges lay the groundwork for a relationship built on mutual trust and alignment.

By amalgamating past student insights, personal interactions, and clear communication, you can adeptly gauge your synergy with a potential supervisor. Investing effort in this assessment phase may lead to a more cohesive and rewarding research journey.

### Different options for research degrees

Pursuing a research degree in the UK offers various options, each catering to different career aspirations and research interests. In this section, we will discuss the primary higher research degree options available in the UK to cardiology trainees, including Master of Philosophy (MPhil), Master of Science (MSc), Doctor of Medicine (MD), and Doctor of Philosophy (PhD/DPhil), to help you make an informed decision about your academic pursuits.

#### Master of Philosophy (MPhil)

The MPhil is a postgraduate research degree that typically spans one to two years full-time or two to four years part-time. It offers students an opportunity to delve into a specific research area and develop their skills in research methodology, critical analysis, and academic writing. MPhil candidates produce a thesis based on their research, demonstrating their ability to contribute to the existing body of knowledge. This degree is suitable for those looking to gain research experience before committing to a more extensive research project, or pursuing a career in academia or industry that values research skills. It is worth noting that some universities require registering for an MPhil degree initially and then completing a process called an 'upgrade' (or equivalent), which involves a thesis and a viva before progressing to the PhD candidate stage.

#### Master of Science (MSc)

The MSc is a postgraduate academic degree that typically spans one (full-time) to two years (part-time) and delves into specialised topics within your chosen area. It combines coursework with research, allowing students

Effective supervision hinges on clear communication. An ideal supervisor remains approachable, offering guidance without being overbearing. Tailoring this balance to the student's research stage is key. Before committing, gauge their workload, ensuring ample time for your project. Also, clarify preferred communication methods through talks with current or past students.

#### Facilitator, director or critical friend: choosing your supervisor

Different supervisory styles have previously been described by others.<sup>6</sup> Directive supervisors provide close guidance, ideal for those new to research, but can feel limiting to some. In contrast, facilitative supervisors grant more autonomy, suiting seasoned researchers or independent learners. While structured supervisors lay clear research roadmaps, flexible ones offer creative freedom, appealing to innovative thinkers. Some, acting as critical friends, focus on mentorship, aiding in professional development. Communication methods

also differ among supervisors, from regular meetings to emails. In essence, understanding supervisory styles helps find the right fit for your research and personal advancement.

#### Assessing compatibility

There are several factors to consider, and strategies to employ, when assessing compatibility with a potential supervisor. Soliciting feedback from their past students can shed light on their mentorship approach, accessibility, and efficacy. Such insights paint a realistic picture of the working dynamics you might encounter.

Set up a dialogue with prospective supervisors to delve into your research aspirations, anticipations, and objectives. This conversation provides a window into their excitement for your project and their communication nuances. Pay attention to how they engage and respond. Feeling at ease and valued in their company is a telling sign of a harmonious future collaboration.

Transparently articulating your expectations

to gain in-depth knowledge and practical skills in their chosen area of study without any further commitment to academia. It is examined in a variety of ways according to the course and university and usually includes a dissertation. Depending on the subject it is likely to provide a grounding in the theoretical aspects of research, but with limited opportunity to undertake novel research.

### Doctor of Medicine (MD)

The MD degree is a postgraduate research degree tailored for medical professionals, usually spanning two to three years full-time or four to six years part-time. This degree allows medical practitioners to conduct research relevant to their clinical practice, fostering an evidence-based approach to medicine. MD candidates are expected to produce a thesis that demonstrates a significant contribution to clinical knowledge or practice. The MD degree is ideal for clinicians seeking to enhance their expertise and reputation in their medical field, or those aiming to pursue a career combining clinical practice with research or academia.

Some institutions no longer offer the MD option. This is worth thinking about when registering for a PhD. The research journey is an unexpected one and, if for some reason during the process one decides to downgrade, then the MD is a good option. Otherwise, it would be downgrading to an MPhil degree, which may not be as prestigious or recognised in the academic community. For most institutions it also involves a very similar amount of work to the MD, in terms of thesis word count and viva, making this an unattractive option.

### Doctor of Philosophy (PhD)

The PhD is the most prestigious research degree in most universities, and usually takes

three to four years full-time or six to eight years part-time to complete. It involves a more substantial research project and requires candidates to make an original and significant contribution to their chosen field. PhD candidates produce a comprehensive thesis, which is examined by subject-matter experts using a thesis and a viva. The PhD degree is well-suited for those seeking to establish a career in academia, research, or leadership roles in various sectors that demand advanced research skills and knowledge.

### Conclusion

Discovering the ideal research opportunity demands perseverance. Establishing a solid foundation for decision-making begins with setting clear goals and identifying non-negotiable aspects of your research pursuits. The next step involves gathering information to pinpoint available opportunities and access them effectively. Networking is crucial, but mastering this skill early in one's training may prove challenging when research decisions must be made.

While research opportunities, such as grants, are valuable in their own right, not every trainee will have easy access to these opportunities. This could be due to a trainee's decision to embark on research later in their training, leaving limited time for creativity or grant applications. This is where advertised research roles can provide opportunities that would otherwise be difficult to cultivate organically, especially if time is limited. Both advertised and non-advertised roles have their advantages and disadvantages, but each can lead to academic success in its unique way and they are not mutually exclusive.

Cardiology trainees in the UK predominantly choose between MD or PhD degrees. Factors

## Key messages

- Research opportunities in cardiology are diverse and multi-faceted. While they can be categorised into advertised and non-advertised roles like grants, it is essential to recognise that these paths often intersect. Securing one opportunity can seamlessly lead to another, highlighting the need for flexibility and adaptability in a trainee's research journey
- The project and supervisor are important aspects of the research role. Considering varying supervisory styles and project types can help in making the right choice
- Options for research degrees are numerous and include: MSc, MPhil, MD and PhD. All with different aims and objectives to allow for individual research objectives

such as available funding and the trainee's interests and aptitudes will ultimately determine the best path. By carefully considering your goals, networking abilities, and research options, you can make an informed decision that paves the way for a successful academic journey ●

### Conflicts of interest

None declared.

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None.

### Editors' note

This is the second part of a series of articles on Research in Cardiology. Part 1 is available here: <http://doi.org/10.5837/bjc.2023.027>

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