

The Search for Research – An IMG’s Guide to IR Research Experience

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As with any medical specialty, ongoing research propels interventional radiology (IR) forward. Having an IR-related research project on your Curriculum Vitae (CV) when applying to radiology residency programs demonstrates commitment to advancing the specialty and a strong work ethic. However, the extent that research experience contributes to successfully matching as an international medical graduate (IMG) can be hard to pin down.

In 2018, The National Residency Matching Program’s Report ‘Charting Outcomes for IMGs’ shed light on the role research could play in successfully matching into radiology residency.¹

Although data for IMGs applying to IR-Integrated residencies are not yet available, US and non-US IMGs who matched into diagnostic radiology residencies in 2018 had a mean of 1.6 and 3.1 “research experiences” respectively, and 2.6 and 15.9 “abstracts, publications and presentations”, respectively. Conversely, unmatched US and non-US IMGs had 1.9 and 2.7 “research experiences” and 3.2 and 9.7 “abstracts, publications and presentations”, respectively. Although the data show a similar average amount of research related activities between matched and unmatched applicants, one thing is apparent – IMGs matching into diagnostic radiology residencies *are* doing research projects! Finding IR-related research opportunities as an IMG may seem like a daunting task, but here are a few tips for getting started.

1. **Think about why** – Consider why you want to pursue any given research project; are you passionate about the topic? Are you looking to add to your CV? Is your main goal a publication? Or are you looking for a mentor in IR? While you may be happy to take on any project that is available to you, it is important to keep your motivation in mind - “research” comes in many different packages and some project types will align with your goals better than others.

2. **Map things out** – Bear in mind that it can be hard to predict how long a project will take from start to finish, and that some by their nature (e.g. prospective studies) require more time than others. Understanding the research methodology for any given project is essential for estimating its duration. Also consider when you can devote the time required to fully engage with a project. For example, working on a case report during the academic year may be feasible, whereas some larger projects may only be completed as part of a full-time summer research position. Since the time to completion typically takes longer than anticipated, planning to start a project sooner rather than later will give you the best chance of completing it in advance of residency applications.
3. **Start close to home** – Making contacts within the IR department at your own institution can be a great way to get started. Getting involved in local research projects will give you experience that can help your CV stand out if applying for subsequent research positions at US institutions. Also keep in mind that publication opportunities can be found all around the world, and you may not have to look far to find an IR department with a strong research presence. Consider looking into a radiology-focused academic journal in your region to identify faculty or institutions with an IR department geared towards research.
4. **Apply early and broadly** – Ensure that your CV is updated. Once you have decided on your timeline, compile a list of prospective research positions and/or investigators whose work interests you early on so that you can prepare for any subsequent applications. Research applications can take several forms:
 - **Summer research positions** – Many US institutions have summer fellowships for medical students, some of which are available to international students. The Association of American Medical Colleges (AAMC) has a [centralized list](#) of some of these options. Applications are submitted through each institution.
 - **Research fellowships** – For prospective residency applicants who have already completed medical school, these year-long positions offer a way to add valuable research experience and become familiar with the US system. Many US universities

offer these positions across various medical disciplines. In fact, some of these positions are purpose-built for improving an IMG's chances of success in the Match.

- **'Cold emailing'** – This approach, which involves contacting many investigators in your desired field about research opportunities, can be exhausting for all involved but occasionally rewarding. Response rates to your inquiries will be poor; however with persistence and preparation you may get lucky! It is especially important to contact investigators early with this approach. For example, consider sending emails in mid to late fall if you are looking to start a project the following summer. If you have a connection to a certain area or institution, be sure to emphasize it in your email to help you stand out from the crowd. Paid positions are more often filled through formal application processes, so be aware that voluntary positions are most likely to be offered via this route.
5. **Be patient and committed** – When opportunities arise, seize them; show commitment to your team by completing your work. Focus your efforts on what you can control, and understand that changes of plan are often a part of the scientific process.
 6. **What about publication?** – In the IR research world, the Journal of Vascular and Interventional Radiology (JVIR) holds a special place as the official journal of the Society of Interventional Radiology (SIR). Be sure to check out these [tips](#) for successful publication directly from JVIR's editor-in-chief if publishing in an IR journal is your aspiration. Presentation opportunities are also valuable and a [calendar](#) of IR meetings can be found on the SIR website. And yes, virtual presentations at virtual meetings are possible!
 7. **Once your foot is in the door, keep going** – Use the relationships formed and experience gained during your first project as a gateway to other opportunities if you wish to further your research involvement. Remember that you can work on some projects remotely with little more than email access, so be sure to look for flexible options (e.g. case reports, working on a specific manuscript section) if you are limited by location or time.

There are many pathways to motivating and rewarding IR research experiences. By establishing your goals, preparing early and exploring many options, you can maximize your chances of success.

Further Reading

AAMC List of Medical Student Research Internships: <https://students-residents.aamc.org/attending-medical-school/research-and-training-opportunities/>

How to Get Your Paper Published in JVIR: [https://www.jvir.org/article/S1051-0443\(15\)00751-4/pdf](https://www.jvir.org/article/S1051-0443(15)00751-4/pdf)

SIR Event Calendar: <https://connect.sirweb.org/calendar/calendar>

Abstract Preparation and How to Write a Good Abstract:

<https://www.sirmeeting.org/index.cfm?do=cnt.page&pg=1036>

References

1. National Resident Matching Program, Charting Outcomes in the Match: International Medical Graduates, 2018. National Resident Matching Program, Washington, DC 2018.