# The Trainee Perspective on Getting Started With Scholarship in Graduate Medical Education

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## Scholarship in Graduate Medical Education

Common program requirements for graduate medical education (GME) are set by the Accreditation Council for Graduate Medical Education (ACGME) and outline the minimum expectations for resident[1] and fellow[2] training and education. Further, these requirements often include scholarship as a fundamental part of a trainee's education in GME,[1,2] and specialty review committees may further explicate specific details or outcomes associated with this scholarship requirement. Some of these committees, like emergency medicine, provide ample additional detail and highlight a number of opportunities that will satisfy the scholarship requirement, including the following: "active participation in a research project," a "quality improvement project," "presentation of grand rounds, posters, workshops … webinars," "grant leadership, non-peer-reviewed print/electronic resources, articles or publications, book chapters, textbooks, service on professional committees, or serving as a journal reviewer, journal editorial board member or editor," or "peer-reviewed publications."[3] Other review committees provide no additional guidance beyond the core requirement that "residents must participate in scholarship."[3]

Given the spectrum of detail (or lack thereof) for this core requirement and the variety of ways it can be satisfied by specialty, it is unsurprising that the Council of Review Committee Residents (CRCR) outlined a generalizable rubric for scholarly activity in GME in 2012.[4]

## Trainee Questions and Barriers to Starting Scholarship in GME

At the biannual CRCR meeting in the fall of 2022, the residents, fellows, and junior faculty that comprise this ACGME council were tasked with identifying common questions and perceived barriers of trainees who are starting to pursue scholarship or research. A full list of questions is available in the TABLE. Four common themes that emerged from this exercise included the types of scholarship that satisfy the requirement, general questions about how to get started, resources, and faculty mentorship.

## Annual Educational Conference Session

Given these findings and a previous request from a diverse group of GME stakeholders to include research in conference programing,[5] the CRCR hosted a 75-minute session about research in GME dedicated to the learner perspective at the 2023 ACGME Annual Educational Conference in February. The session primarily involved a panel discussion about common questions and barriers GME trainees experience when starting scholarship. The discussion was moderated by a senior resident, and a diverse cross section of the GME community was represented on the panel, including resident, fellow, junior faculty, and designated institutional official (DIO) participants.

During the session, the 4 themes identified by the CRCR—types of scholarship, getting started, resources, and mentorship (TABLE)—were highlighted in the panel discussion. Using Mentimeter, a real-time feedback presentation platform, audience responses were solicited for each of the 4 themes. Audience members who responded to the presentation questions self-identified as having the following roles in the GME community: other (7), program director/associate program director (5), faculty (3), program coordinator/manager (2), and DIO (1). Audience responses stimulated further discussion between the panel and participants.

### Types of Scholarship

The panel discussion at the conference focused on traditional educational scholarship and novel modalities that continue to be embraced by the GME community. Traditional modalities discussed included peer-reviewed journals, textbook chapters, and presentations at local

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**TABLE**
Council of Review Committee Residents Common Questions of Graduate Medical Education Trainees Getting Started With Scholarship and Research

| Theme | Question |
|---|---|
| Types of scholarship | What is the value of publication and peer-reviewed poster presentations (eg, Annual Educational Conference presentations)? |
| | What opportunities exist for scholarship?<br>▪ Conference presentations<br>▪ Didactics/grand rounds presentations<br>▪ Written publication<br>▪ Leading journal club<br>▪ Evidence-based care (eg, quality improvement projects)<br>▪ Annual institutional research days |
| Getting started | Why bother with research? |
| | What do I do when I don't feel like I can do one more thing? |
| | What should I do when I am just getting started? |
| | What resources are available for beginning scholars? |
| | How do I find out what resources exist in my department/institution, such as data technology, statistics support, and library access? |
| | How do I get started when there are so many other demands on my time? |
| Resources | What do I do if the number of faculty members doing research at my program is limited or I am in a low-resourced or community-based program? |
| | How do I get funding to travel to conferences and present posters? |
| | How can the graduate medical education community support residents and fellows with scholarship and research? |
| | From the trainee perspective, what are common obstacles to research and scholarship, and how can they be overcome? |
| Mentorship | How can mentors help trainees who may have fear of failure about research and scholarly activity? |
| | How do you find mentors? |
| | How do you know about existing research opportunities within your department and institution? |
| | How can a mentor help narrow and refine a research question? |
| | If I just want to be a community-based clinician after training, why do I have to do scholarly activity in residency? |
| | How can senior residents help junior residents with scholarship? |

and national conferences. The importance of seeking opportunities to share scholarship was highlighted, and panelists emphasized attendance at local meetings, such as medical societies and institutional research days. These opportunities have lower barriers to entry than national conferences and may be crucial for helping trainees become comfortable with presenting scholarly work at an earlier point in their careers.

Panelists also encouraged trainees to embrace novel methods of scholarship that would better fit their academic interests than traditional modalities. In recent years, the use of free open access medical education in GME has expanded. As a result, the opportunities for residents and fellows to produce digital scholarship has similarly increased. Digital scholarship refers to "original content that is disseminated digitally"[6] and includes blog posts, podcasts, and digital journals. To support educators and trainees producing digital scholarship, consensus guidelines for digital scholarship in academic promotion have recently been published.[6]

However, the panel acknowledged that digital scholarship could and should be used to supplement traditional methods since these modalities are not mutually exclusive. Using social media platforms to disseminate study results can draw new audiences to the original research. Additionally, image-based platforms, such as Instagram, allow for creativity through use of infographics and visual abstracts in dissemination efforts. Podcasts are also a useful medium to discuss research findings and may allow trainees to add context to their scholarly work that may be difficult to include with traditional methods of dissemination.

## Getting Started

Another theme discussed at the conference was how to get started performing scholarship. Speaking with others is often the first, and sometimes the most important, step that trainees can take when starting scholarly work. Connecting with others who are involved in research can be helpful when choosing a topic or discipline of focus, and it can also facilitate understanding of the different types of available research. Additionally, experienced researchers are often invited to contribute to journals or blogs so that trainees who show an interest in scholarship may be approached by these individuals to collaborate on projects. Early exposure to these types of activities and active participation may be helpful in developing trainees' professional identities and curiosity.

Once a topic or project is selected, trainees should dedicate time to understand available resources and pursue mentorship to ensure a successful outcome. Although there may be a desire to start a project quickly, trainees should complete the crucial steps of taking time to thoughtfully build a team and diligently work through the methods. The session panelists highlighted the importance of these initial planning stages for scholarly projects. Even though this step may be laborious and frustrating for trainees starting their projects, the panelists acknowledged the importance of this step for greater payoff in later steps.

Audience responses emphasized mentorship, identification of manageable project types and available funding, didactic research education, suggestions for presentation opportunities, and faculty recruitment of trainees into existing projects.

## Resources

Because of substantial variations in scholarship resources from one institution (or department) to another, resources were another theme of the panel discussion. Resources encompass classic elements necessary to conduct research, like availability of funding and writing support, but also include peripheral support, such as faculty or senior peer-led didactic sessions dedicated to the basics of research and scholarship. Discussion during the conference session emphasized the need for local availability for poster presentations or special research days dedicated to dissemination of scholarly activity.

Protected time to conduct scholarly activity is a vital resource for trainees. One of the first questions asked during the CRCR exercise was "What do I do when I feel like I can't do one more thing?" Protected, dedicated time for scholarship is likely the most universally limited resource for trainees. As such, program and institutional leaders should consider how dedicated time for scholarly activity can be incorporated into trainees' schedules or, if already present, how it can be expanded. Also, during the CRCR exercise, participation in scholarship was noted as a way to reinvigorate trainees since it has the potential to bring people together in microcommunities to work together toward common goals.

Session panelists at the conference noted that national resources also exist to promote trainee scholarship, such as the Back to Bedside initiative developed by the ACGME. This initiative is a competitive funding opportunity for trainee-driven projects that emphasize deeper engagement with patients and foster meaning in medicine.[7] Awardees are supported by a local faculty mentor and attend periodic collaborative meetings where they interact with other grant recipients. This trainee peer group provides a network of support and camaraderie. The collaborative meetings are designed to bolster trainees' skills at various steps of their projects with workshops designed by expert researchers, peers, and both junior and senior faculty members. The next cycle of Back to Bedside proposals will be released in October 2023.[7]

## Mentorship

Mentorship was the final theme discussed at the ACGME conference. Faculty mentorship is pivotal for trainees seeking to participate in scholarship, and it is especially important for trainees just getting started. Depending on the status of the project, trainees may need mentorship and guidance in different domains. For instance, a trainee in the initial stages of a formal research project may need help writing an institutional review board protocol and grant proposal. However, trainees taking a less traditional approach to scholarship may need assistance with accessing the existing resources of their institution, such as obtaining microphones from the information and technology department for a podcast. For trainees who have not previously performed substantial scholarly work, partnering with seasoned faculty on an existing project is a good first step into the world of scholarship. Therefore, another important aspect of mentorship is facilitating trainee involvement in existing faculty projects, which necessitates clearly communicating faculty scholarship projects to trainees.

As noted in the TABLE, some trainees may find the scholarship requirement for GME daunting, and feelings of fear of failure may manifest as avoidant behavior. Faculty can support trainees through these feelings with mentorship and coaching. Faculty set the example for their trainees, but they should also help trainees who appear to be struggling. Similarly,

faculty have the ability to model an environment of inquiry and curiosity. For trainees who are interested in working in a nonacademic community setting after training, engagement in scholarship during residency may be perceived as poorly aligned with their career goals. Regardless of a trainee's career goals, fostering a sense of inquiry through the learning environment may positively influence professional identity formation.[8]

Audience responses during the panel session included setting mentor/mentee expectations, providing cross-institutional mentorship, developing mentorship and mentee training, and connecting premedical and medical student mentees with an appropriate mentor so they can gain experience.

## Next Steps

Inspired by the panel discussion, individual conference session participants noted that their next steps would involve the following: finding a mentor, including finding one beyond the typical internal group when necessary; investing in mentor/mentee relationships; seeking nontraditional scholarship opportunities; and finding others with similar questions to leverage similar interests.

One way of promoting scholarly activity among trainees would be the creation of a centralized and national how-to guide for residents and fellows who are just getting started with scholarship. This resource could include the themes described above along with additional information about conducting scholarly activities. Ideally, this resource would be coproduced by seasoned faculty scholars and current trainees from a variety of specialties to ensure relevance and breadth of content. Offering this resource for free in an easy-to-access location, such as a public website, would limit barriers to use. Further, the delivery of this content could take a variety of forms, such as a written document, podcast, lecture, or workbook. Although dissemination could occur at any time during GME training, the best time may be during orientation, or shortly thereafter, so trainees have ample time to review and digest the material. Finally, we recommend that the tone of the resource should be positive and encouraging to help trainees feel motivated and empowered to participate in scholarship.

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