

# Resident Research Funding Primer

## **Identifying the right funding mechanism**

To identify the right mechanism, you should ask yourself a few key questions:

- 1) Are you willing to move away from your current city? If so, you will have many more options available to you. Also consider, how will a move impact your family? Would you have the support of your home institution if you were to move?
- 2) Do you want to do focused work on any specific clinical or subject area? You might want to stay general, but if you know that you will focus on anything in particular (say, transplant surgery) and have mentors in that field, your application will be more attractive to funding opportunities that have a defined focus.
- 3) What are your goals? Do you want to be a clinical outcomes researcher? Many funding opportunities at this stage are targeted on development of particular skills (i.e. do you need to obtain additional training/degree, do you need to work a specific dataset).

## **When to apply**

Apply early and apply often. As our accompanying listing of opportunities shows, many applications open in the late Summer/Fall of the year preceding your research fellowship. More opportunities may emerge as the year goes on, so don't stop looking just because you have nailed down your initial source of funding.

## **How to identify an area of research and develop the idea**

Before deciding *what* to research, make sure you know *why* you are interested in it. The beauty of clinical and health services research is the opportunities you have to change policy and practice. What clinical, operational, or policy problems keep you up at night? What problems in surgical care drive you crazy? Keep these in the back of your mind, as they will provide you the motivation to keep working when the inevitable challenges come your way!

Ultimately, of course, what you decide will be influenced by the mentors and resources you have available, as well as your future plans. For instance, if you are interested in a competitive subspecialty such as pediatric surgery, you will most likely have to do

research that at least relates to the subspecialty. But within any clinical subspecialty, there is a wide range of clinical questions and approaches, and you should select the research track that fits best with your interests, skillset, and training resources. If you don't have any methodological training, that's okay--but it means you will need to ensure you get that training in conjunction with your hands-on experience. In general, it is ok to do research in a field that is tangential to the clinical specialty in which you ultimately apply. What is MOST important is you learn the fundamental HSR skills (e.g., quantitative analysis, qualitative analysis, writing, speaking) that will be widely applicable to any topic area you may choose.

### **Advice when working with mentors to develop the proposal**

Your mentors will be your best resource as you hone your ideas. The more diverse your mentorship pool is, the better---it helps to have a diverse mix of senior and junior faculty, who can provide a balance of high-level sponsorship and day-to-day guidance. It is also incredibly useful to have mentors outside of surgery, including other physicians and PhDs, who will bring a great deal of sophistication and methods savvy that your clinical mentors may not be able to provide. If you are in a two-year training program, it often helps to find second-year research fellows who can chime in and share their expertise as well. Ultimately, you should cultivate a "brain trust" of mentors, but you will likely narrow it down to 1-3 primary mentors who will help coach you through your first grant application. It often helps to look through your mentors' own grant applications as you prepare them, so don't hesitate to ask! If you can find anyone who has had success with the grant you are applying for, they can obviously be a great resource as well.

### **Writing the grant**

For your first research grant, it usually makes sense to tie this closely to a project your mentor is already working on. Ideally they already have a K award or R01 (or equivalent) on the topic, in which case you can tailor and adapt their grant materials to your unique piece of the project. This also ensures that the resources (data, analyst support, etc) are in place and that the question is worth answering from a clinical and scientific standpoint. Start writing your proposal 2-3 months in advance, and discuss it frequently with your mentor to make sure you're both on the same page. This will save time down the road.

### **Submitting the grant**

Your mentors will want ample time to review your grant. Make sure you have a finalized version at least 7-14 days (institution-specific) before the actual deadline. Your mentor

may be on vacation, have a busy clinical week, or have their own deadline and may not be able to review your grant in less than two weeks. Many institutions, especially those with a CTSA, have grant-reviewing help. Your institutional/departmental grants office may need to see the application even sooner than this, so be aware of their deadlines. Otherwise reach out to your institutional library or writing center if you don't have a lot of experience in grantwriting. There is definitely a secret-language to grants and there is a lot that goes into the details. Make sure your grant tells a painfully clear narrative of why they should give YOU the money for THIS project. Many of these grants (e.g. F32, NIH Loan Repayment awards) are specifically aimed toward trainees and junior researchers, and for these it helps to have a concrete idea of the training you need to achieve your academic goals.

### **Advice for interviewing for these opportunities**

Know your grant application through and through. Be able to justify weakness head-on and turn them into an opportunity. Consider practice run-throughs with academic faculty, even better if it is a researcher from a different field. Your interview is expected to be very polished. You must be able to explain your project in a comprehensive yet simple and passionate way, and be able to answer questions about all aspects of the grant including justifying why you need the money.

### **What to do after you're funded?**

Often, depending on the mechanism, you will find out if your grant has been reviewed, how it scored, and what your next steps are. If you find yourself in a position of resubmitting a grant or revising one, it is awesome to be able to show you are making progress. So we recommend getting to work on a project that is important to you even if you don't have funding yet. Perhaps you can develop the survey that you plan to use. Maybe you can do some preliminary work. All of these things will strengthen your application. If you do get funded, you will have time before actually starting your funding period. Have your ducks in a row and be ready to work. For most residents they will have a tight 1-2 years to finish everything and you don't want to wait for the logistics to get ironed out before you start your projects.