Academic University Practice: Program Selection and the Interview Process

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ABSTRACT

The decision to go into academic surgery, rather than private practice, is often multifactorial and includes the opportunity to participate in research, education, and patient care. The current job market for academic colon and rectal surgeons can be described as favorable and growing as there is a push for major academic institutions to obtain fellowship-trained colorectal surgeons. In selecting a job, one should be familiar with the department characteristics. This requires obtaining the answers to multiple questions and negotiation of institutional commitment.

KEYWORDS: Academic practice, mentoring, research, job market

Objectives: Upon completion of this article, the reader should be familiar with the characteristics of an academic university practice and the job selection process.

Planning a career in academic surgery is an exciting time for a young trainee. It provides the surgeon with an option to be at the forefront of mentoring the next generation of surgeons and to embark upon a career of surgery, research, and education. Until recently, colorectal surgery has lagged somewhat behind other surgical disciplines and simply been incorporated into many academic general surgical departments, being performed by general surgeons with colorectal experience. This has changed recently as many academic departments have hired trained board-accredited colorectal surgeons to lead clinical practice, education, and research in colorectal surgery.

In this article we review ideas that may be important to a young surgeon considering an academic career.^{1,2} We start by discussing reasons why a surgeon might choose a career in academic surgery and then discuss a job market analysis for the academic colon and rectal surgeon. Types of department structure are then

discussed. The chapter closes with a discussion of questions to consider asking during the process of applying for an academic position and suggestions of factors to consider when negotiating institutional commitments and structure of the requirements of the position.

WHY CHOOSE A CAREER IN ACADEMIC SURGERY?

The decision to go into academic surgery, rather than private practice, is often multifactorial. Although private practice can allow specialization, unless one is joining an established group it often takes several years to build a specialty interest. Academic surgery allows specialization within a university group and permits a scholarly focus upon a particular field.

Colon and rectal surgery is a true subspecialty with its own certification through the American Board of Colon and Rectal Surgery, with specialized societies

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and meetings. The appeal of choosing academic colon and rectal surgery can be viewed in terms of research, education, and patient care.

Research

Colorectal surgery provides an opportunity to perform basic science as well as translational or clinical research, or both. A variety of disease processes encountered by the colorectal surgeon have only begun to be elucidated. From the polyp-cancer sequence to immune mechanisms in inflammatory bowel disease, much has been discovered. However, there is ample room for continued investigations and discoveries with the ultimate goal of translation into clinical benefits. Working in an academic practice may give the surgeon an early opportunity to collaborate with established scientists in a basic science field.³ This may offer mentorship and the opportunity to develop one's basic science career. Translational research experience is often best attained through collaborative studies, where the surgeon may initially provide tissue samples for a basic scientist and then be able to develop independent projects. Alternatively, there are several academic colorectal divisions in the country where basic science research is being performed, and the opportunity to join one of these groups would give the successful applicant the immediate opportunity of starting basic research.

Equally and perhaps more important is the performance of clinical research. This is a very attractive field and one that has often been neglected in surgical practice. Nevertheless, the performance of clinical research provides an opportunity to evaluate and optimize patient care, surgical techniques, or innovative technologies. The ability to measure quality of provision of care, or outcomes research, has become a necessity to assess true progress in the care that we provide to patients. Thus, the training of residents and colorectal fellows must not only introduce the processes of grant writing and how to obtain research funding in basic laboratories but also provide opportunities to train young researchers in clinical research techniques. Performing this type of clinical research in an academic medical center gives the opportunity for the clinician to collaborate across multiple medical specialties and also collaborate with other disciplines in the university, such as engineering, computer science, and biostatistics.

Colon and rectal surgeons have remarkable potential to improve outcomes in patient care. The role of specialization has demonstrated better outcomes in the surgical management of rectal cancer⁴ as well as emergency colorectal surgery.⁵ These studies reiterate the appropriateness of subspecialty training in enhancing and delivering patient care. With the advent of newer surgical techniques, the colorectal surgeon also has the exciting challenge of applying new technologies to define patient management strategies.

Education

Education is a cornerstone of academics and a hugely rewarding part of being in academic surgery. The education of medical students, residents, and research and clinical fellows represents a spectrum of challenges and rewards for the academic surgeon, who serves as a role model for both students and residents and fosters interest in the field.

The addition of a full-time colorectal surgeon to existing surgical residencies enhances education with an immediate increase in complex anorectal cases.⁶ The increased exposure to colorectal surgery appears to generate interest in residents obtaining fellowship training. Until recent years, many respected academic programs have had no colorectal surgeon. This has changed, and the addition of these specialists has provided more depth to the colorectal component of training for residents.

Some programs have the opportunity to have a board-approved colorectal fellowship. These colorectal clinical fellows represent the future of colon and rectal surgery. They require training in a variety of skills to adapt to a changing medical environment and give the academic colorectal surgeon an opportunity to teach clinical and research skills, hospital management, and some business skills to position the trainees well for their future practice.

Advances in laparoscopic colorectal surgery have meant that minimally invasive technical skills are essential to any modern residency or fellowship training. The academic surgeon can also teach practicing surgeons as innovative techniques are continually introduced and refined. In the form of advanced courses, minifellowships, or continuing medical education, state-of-the-art techniques can be conveyed to a large population.

Research fellows are a further opportunity to teach residents and, it is hoped, create the correct environment to help a resident follow the academic pathway.

Mentorship

Mentorship is a crucial part of being at an academic medical center.⁷ Academic surgeons have the opportunity to mentor young trainees from the start of their career, provide information to help them make career decisions, and help with writing, research, and their clinical development. This opportunity also exists for more senior surgeons to help junior faculty and give them research opportunities and opportunities to become involved with committees and national societies and to gain exposure at a national and international level.

Mentorship also becomes important from the perspective of developing the faculty of the institution, as many successful faculty have often come through training programs at their own institution and can be specifically chosen and modeled to fill future needs in the academic surgical department.⁸

Other Benefits

An academic pathway allows the opportunity to lead with the development and implementation of new techniques and instrumentation. This can be achieved through collaboration with engineering departments in the university or through interaction with industry.

Institutional administration roles and society administration roles can further strengthen career skills and opportunities for the individual surgeon. There are also other less well defined benefits to entering a career in academic surgery. The ability to interact with multiple specialties allows an exchange of ideas and exposure to a variety of skill sets. Often overlooked are the secondary benefits of society membership, such as networking and travel, for those who enjoy this aspect of an academic career.

JOB MARKET ANALYSIS FOR THE ACADEMIC COLON AND RECTAL SURGEON

The current job market for academic colon and rectal surgeons can be described as favorable and growing. There is a push for major academic institutions to obtain fellowship-trained colorectal surgeons. This trend has created opportunities for junior faculty directly from fellowship to enter a path of career advancement. For senior level faculty members, there have been opportunities to build and direct departments of colorectal surgery.

Networking plays an important role in acquiring an academic appointment, as candidates are often selected from people known to the faculty of the institution or known to colleagues from other institutions. In a review of the *Journal of the American College of Surgeons*, the *American Journal of Surgery*, and *Annals of Surgery* from January to December 2005, only 18, 8, and 18 advertisements for colorectal surgeons were posted, respectively. Likewise, there are only nine academic positions posted as of March 2006 on the American Society of Colon and Rectal Surgeons website. These relatively small numbers emphasize the importance of peer references and networking in achieving a career in academic colorectal surgery.

Many faculty for academic institutions are “home grown,” and therefore future academic surgeons should consider the future plans for the department in which they train as they consider where they wish to go into practice and what specialty they wish to pursue.⁸

TYPE OF DEPARTMENT

The role of a colorectal surgeon in a department of surgery is varied. A dedicated colorectal surgeon may practice as a member of the department of general

surgery, participating in general surgery on-call rotations but providing expertise for more complex colorectal cases. This has been the model observed in many long-standing general surgical departments, as the traditional hesitancy by general surgeons to bring in subspecialists is overcome and colorectal surgeons come on board. This arrangement is observed less frequently, however, as increased specialization and compartmentalization become more prevalent.

More frequently, colorectal surgeons practice as part of a separate section or division within a general surgery department. Colorectal patients are usually referred to this group. On call may be as part of the general surgical call rotation, or, if the group is large enough, a separate colorectal on-call rotation may be instituted. Participating in the general surgical call, even at a minimal level, provides the benefits of having the general surgeons provide cover if all of the colorectal group are traveling and of collegiality as the colorectal team are also helping out in the overall requirements for on-call coverage in their department. Some colorectal surgeons do not wish to cover general surgical cases, and this can be dealt with differently by different departments. As surgeons tend to specialize further into their own areas, it is often the case that there is a “secondary” on-call roster where colorectal, hepatobiliary, and other subspecialists would cover complex cases in their area if the person on primary call is not comfortable. This degree of subspecialty cover is more often sought after by the public in our tertiary academic medical centers.

The exact structure of the department and the on-call rotation is often closely related to the number of colorectal or general surgeons in the group. With further specialization, some larger university practices and private clinics have free-standing departments of colon and rectal surgery, with a large number of surgeons who provide complete coverage, independent of the general surgical staff.

QUESTIONS TO ASK

The clinical, research/academic, and personal aspects of a position in academic surgery should be thoroughly evaluated. An estimate of the scope of clinical activities can be gauged by knowing the amount of time spent in clinic and the average case load and patient load. Candidates interested in research or education may have to structure their clinical activities appropriately. Other significant factors that affect clinical practice are the on-call responsibilities of the surgeon. A colorectal surgeon who is expected to take a general surgery call may have less time to focus on specialty-related interests. Resident, nursing, and secretarial support should also be taken into account when considering a position in academics. The existing research infrastructure for data collection, statistical support, and conduct of clinical

trials should be evaluated. Each of these support groups can have a meaningful impact upon a surgeon's time that may help or hinder the pursuit of other interests.

Often neglected for consideration are the actual facilities in which clinical practice takes place. Well-designed and well-equipped operating rooms and clinics may further enhance the delivery of care and the efficiency of surgical practice.

Inquiries regarding research should seek to define the level of institutional commitment. Technical support, physical space, funding, and protected time are the most relevant issues. Although less prevalent, tenure track opportunities should be discussed. The appointment of an academic title and requirements for progression need delineation. Issues regarding collaborative research and grant support should also be explored.

Personal aspects contribute to the selection of a position in academic surgery. Compensation in terms of salary and benefits should be explicitly stated in contractual terms, and surgeons should ask about the relationship between volume of work performed and increases in salary over time, as described in the next section. Many institutions are now moving to use national benchmarks, such as the Medical Group Management Association (MGMA) or the American Group Medical Association. The difficulty of these for colorectal surgeons is that there are still few colorectal surgeons in centers that provide data for these groups, so small changes in the relative value unit (RVU) performance for a surgeon may significantly affect overall benchmarks. Correspondingly, the small sample sizes make current benchmarks of the MGMA for colorectal surgery in terms of RVU performance unreliable. Current numbers reported appear grossly inflated compared with the general surgical standards. This can make negotiation with administrators challenging, as it is frequently difficult to come up with reliable RVU performance and salary benchmarks with the currently available data for colorectal surgeons. Scheduled time off in the forms of vacation and continuing medical education should be outlined.

NEGOTIATION OF INSTITUTIONAL COMMITMENT

The negotiation of institutional commitment should first define how a salary will be computed. Nonclinical activities such as research and teaching necessitate a discussion regarding compensation. Resources such as the MGMA can be accessed through the internet to obtain national benchmarks for salary of a specialty in a given area.⁹ Additional skills such as advanced laparoscopic training or a background in translational research

may be topics for further negotiation. Arrangements for protected research time are paramount for junior faculty as clinical activities can become burdensome. Ideally, an allowance of protected research time permits junior faculty to remain productive as their practice builds. Likewise, provisions for appropriate nurse practitioner, physician assistant, research nurse, secretarial support, office space, operating room and office equipment needs, physiologic laboratory equipment, and staffing should all be looked at and negotiated carefully. A clear understanding of what support will be available, when it will be available, and who is ultimately financially responsible for providing it is essential when negotiating your contract. Also, with the overwhelming price of malpractice insurance in many areas, a clear understanding of who will provide tail coverage should a move be contemplated must be negotiated and contractually specified. Lastly, negotiations should be performed with collaboration in mind and in the spirit of selecting the best fit for the individual.

In summary, there are many reasons to choose a career in academic surgery. Career paths in colon and rectal surgery can be tailored to the individual and his or her specific goals.

DISCLOSURE

The authors have no conflicts to disclose in reference to this article.

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