Career Development in Academic Medicine

Your Journey to Success



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FOREWORD

The first edition of *Career Development in Academic Medicine: Your Journey to Success* was published by APGO in 1996. A second edition followed in 2005, and this third edition was published in 2012. From the outset, the purpose of *Journey* has been to enable our colleagues who have chosen academic medicine to move their careers along successfully.

Given the challenges we all face in academic centers, it is more important than ever to take charge of your career. It is equally important to integrate your needs with the needs of your academic department and medical center.

Journey consists of ten chapters written by your colleagues who have been "in the system" for many years. Short biographies for them are found beginning on page 162. The path to success is never a straight line, and the authors have experienced—as you do and you will—many crossroads and curves along the way. You may note that the writing style may differ slightly from chapter to chapter, and this is intentional. Individuals think and write in different ways, and we want to illustrate that there is no one set strategy to achieve your goals.

The authors have provided their thoughts, ideas, and wisdom without any compensation. This text is their collective contribution to the future of academic medicine.

Chapter 1 defines an academic physician and describes strategies for initiating a successful academic career, keeping an eye on future goals, and considering promotion and tenure. Chapter 2 leads you through the sometimes complex, always vital process of negotiating your terms of employment, from the initial offer through the contract signing and beyond. Chapter 3 describes the importance of mentoring in your academic career. Success is more easily achieved with the benefit of advice from one or more of your seniors.

Chapter 4 reviews the imperative process of candid self-assessments and periodic evaluations and performance reviews with your division director and chair. Chapters 5 and 6 offer suggestions on how to approach research, grant writing, and publication. Chapter 7 provides advice on how to document your career. Developing a curriculum vitae is essential to moving up the ladder. Likewise, carefully maintaining a teaching portfolio—a list of your educational contributions—is most valuable. Both of these documents will be especially instrumental when you are considered for promotion.

Chapter 8 addresses the formal process of promotion and tenure. Chapter 9 describes the means by which faculty achievements can be rewarded. It is written with the view that teaching is undervalued relative to other academic accomplishments and deserves greater recognition. Finally, chapter 10 provides a summary to place the elements of an academic career in perspective for you.

This text is included as part of the curricular materials for the APGO Academic Scholars and Leaders Program, as well as the APGO Clerkship Directors School.

Career Development in Academic Medicine: Your Journey to Success is not intended to be read once and then put aside. It is meant to be a handbook—a true guide—for your use throughout the years ahead. We suggest you keep it close at hand and refer to it periodically, or when career situations arise—changing responsibilities, promotions, etc. And if you provide a copy to a younger colleague, you are showing your support for those who follow in our footsteps.

We hope you enjoy this *Journey*, and we trust it promotes not only your professional career but your personal career goals as well.

The Editorial Committee of the Third Edition of *Career Development in Academic Medicine: Your Journey to Success:*

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Virtually all of their ideas were incorporated into the final product, which is much stronger for their efforts. We appreciate their adding this activity to their already busy schedules.

2011 APGO Undergraduate Medical Education Committee

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We also appreciate the authors sharing their wisdom, and we are especially grateful to them for meeting every writing deadline. More about them can be found on page 162.

Finally, we thank Donna Wachter, Executive Director of APGO, for keeping things (mostly us) firmly on track throughout the process, always with her friendly manner.

INTRODUCTION

The Road Less Traveled

By Steven G. Gabbe, MD

Two roads diverged in a wood, and I – I took the one less traveled by, And that has made all the difference. Robert Frost, "The Road Not Taken"

Congratulations! You have chosen the road "less traveled by." Unlike most of your colleagues in medical school and residency, you have decided to pursue a career in academic medicine.

This is undoubtedly a challenging time for academic medicine. Concerns about healthcare reform, lifestyle, length of training, indebtedness, and tenure, to name a few, have turned students away from our profession. Yet there is no question that the career decisions made by medical students are significantly influenced by their interactions with faculty during their years of clinical training. You too can inspire other students to choose a career in academic medicine by being a compelling teacher and role model. Like a stone thrown on a quiet pond, the ripples generated from your teaching will continue for years to come.

A career in academic medicine will allow you to travel many roads. During residency, you were assigned to rotations with little opportunity for changing your schedule or for elective time. For those of you who completed a subspecialty fellowship, the curriculum was also relatively fixed. But now you have choices.

Will you decide to be the traditional academic "triple threat," a clinician-scientist mastering patient care, teaching, and research? Will your road emphasize patient care and education, the more traditional clinician-educator track? Or will you become a "quadruple threat," contributing to administration as well? Most critically, how can you avoid a road that will lead you to an unsatisfying end or a blind alley?

You must plan your journey (Gabbe 1996) and be certain that you have a compass, the necessary supplies or resources, and most importantly a good map. You must decide which road you will follow. If not, days will turn into weeks, months, and years, and you will find yourself in a place not of your choosing, and less than fulfilling. Patient care is personally rewarding and, given the financial stresses facing most medical schools, you may be pressured to spend more time in clinical care. However, without the time to develop your skills in teaching, research, and administration, you may begin to question why you have chosen a path in academic medicine rather than in private practice.

Given the essential role of planning, how do you plan your journey? You're making an excellent start by reading this book. It is a superb resource prepared by an insightful group of academic leaders in obstetrics and gynecology. It emphasizes the importance of identifying your mentor or mentors, guides who, like you, selected the road less traveled by. Don't hesitate to ask them questions about both their journey and your journey.

Your travels in academic medicine will likely be characterized by ups and downs, days of great satisfaction and days of disappointment. But with your plan carefully prepared and your goals established, you will continue to move forward. Your goals should be concrete and should be agreed upon by you and your mentor. For example, during the coming year you might make any of the following decisions: "I plan to complete my research project and submit two papers to a peer-reviewed journal," "I plan to apply for membership in this important society," or "I plan to apply for a training grant to help me get my research established." Along the way, there will be risks as well as opportunities. Be sure to take some risks early in your career—it is often more difficult to do this later (Gabbe 1996).

Finally, recognize that you, your family, and many others have invested in you and your career. You have spent years in training, and you have frequently made personal sacrifices. Take care of yourself! Job burnout, "a prolonged response to chronic emotional and interpersonal stressors on the job," occurs more often in a new position (Maslach 2003, Gabbe 2002). As a new faculty member, you are unfamiliar with your surroundings. Avoid setting unrealistic goals and expectations for yourself, and don't hesitate to ask questions about how you should proceed.

Burnout is related to your workplace and environment, not you. Three factors determine the likelihood that burnout will occur: demand, control, and support (Sotile 2002). Undoubtedly, your position will place great demands on you, especially at the start. You will likely have more control of your work schedule and your responsibilities than you did as a resident or fellow. Still, you will likely receive assignments that limit the control you have over the balance between professional and personal lives.

It is essential that you find balance in your life, setting aside time for family, friends, and personal interests. Support will play a key role in your ability to prevent burnout—support from your mentor(s), feedback from your division director or chair on your performance, and most importantly support from your family and friends.

Speaking as the Chief Executive Officer of a major academic medical center, I want to thank you for choosing the road less traveled by, a career in academic medicine. Every day, I see the incredible contributions our faculty make to the future of medicine as they teach and mentor our students, residents, and fellows, as they advance medical science, and as they provide superb patient care. You now have that opportunity. I hope your choice of the road less traveled by will be as rewarding as mine has been.

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DEDICATION



In honor of his numerous contributions to women's healthcare education over the past three decades, the Association of Professors of Gynecology and Obstetrics Board of Trustees unanimously voted to dedicate this new edition of *Career Development in Academic Medicine: Your Journey to Success* to Martin (Bud) L. Pernoll, MD.

In addition to Dr. Pernoll's many generous contributions to APGO and its members, he has been a wonderful mentor to many in our field. His gentle suggestions, offered spontaneously if one knew him well, were always positive and challenging. Many recent APGO leaders have Dr. Pernoll to thank for improving their own leadership skills, which helped to advance their academic careers.

CHAPTER ONE

Advancing in Academics: A 4-D Approach

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Welcome to the Ivory Tower. Now that you are on the inside, you may wonder how to navigate a successful career in academic medicine. Like many beginning academic physicians, you may be unsure about what lies in store and how to move ahead. You may even have questions about what an academic physician is. This chapter defines an academic physician and describes strategies for initiating a successful academic career, keeping an eye on future goals, promotion, and tenure.

What Is an Academic Physician?

The traditional model for academic physicians is the "triple threat" of excellence in teaching, research, and clinical practice. These three components are both the joy and the challenge of academic medicine. While advantages include the opportunity to educate medical students and residents, expand knowledge with research, and maintain a vibrant clinical practice, disadvantages may include a sense of frenetic activity and a plate excessively full. In one systematic review (Straus 2006), physicians who chose academia differed from physicians who chose private practice and were more likely to:

- Have an interest in research and have an MD-PhD, or have published in residency
- Express a strong desire to teach
- Rank intellectual stimulation as an important incentive
- Rank a stimulating career as very important in their career decision
- Describe the strong influence of a role model or mentor

Fortunately, career options in academic medicine have become more flexible with a variety of pathways to reward physicians who focus on some but not other areas of the academic triad. As described below, many institutions have "clinician educator" tracks or "research physician" tracks, with a greater focus on teaching and research,

respectively. Regardless of the track you ultimately choose, our hope is that you enjoy a long and rewarding career in academics, and that you weather any discouragement along the way, progressing to the top of the academic ladder.

Twists and Turns Along the Way

Some physicians know exactly what they want to accomplish in academia right from the start. A research or teaching focus may begin during a sub-specialty fellowship, for example, and goals for the first academic appointment after fellowship may follow seamlessly from fellowship work. For others, though, a clearer vision develops with time, as an area of interest and scholarship is explored. In most cases, advancement in academics may depend on developing a "niche" of expertise, whether it is in an area of clinical practice, educational innovation, research, or a combination of the three. Finding a niche early and developing a track record of clinical, educational, and/or research success will help in your academic advancement.

Charting Your Course

An understanding of promotion and tenure is essential. That process, referred to as "P and T," is discussed in chapter 8, "Faculty Promotion and Tenure Systems."

From an institutional perspective, the promotion and tenure process is a tool to recruit and retain the right number of faculty members, in the right proportion and in the right departments, to carry out the mission of the medical school. Institutional priorities are carried out by department chairs (and, in larger departments, division chiefs) who direct the day-to-day operations of the department. These administrators recruit faculty members to help the department accomplish research, teaching, and patient care. They also must help keep departmental coffers full and enhance the program's reputation nationally and internationally.

Department chairs and division chiefs may appear to use the departmental P and T process in a carrot-and-stick fashion. They use the carrot—the offer of an academic position—to recruit you, or perhaps to convince you to take on duties and responsibilities. The stick—no recommendation for promotion—is used to engage you in challenging activities such as writing articles for publication when you would rather be teaching, or handling more than a light teaching load when you are more engaged in research. At most institutions, faculty members are put up for promotion and tenure by their department chairs. A chair's refusal to do that can be a very big stick indeed. Many institutions have a departmental P and T committee that is especially useful when there is disagreement on academic appointment between faculty member and chair.

Another influential institutional player is the School of Medicine P and T Committee, which usually consists of appointed or elected senior faculty members. This group serves as the academic conscience of the school; it ensures that no one is promoted or granted tenure without proper evidence of scholarly worthiness. The P and T Committee considers your body of accomplishments to determine whether you meet the promotion criteria set forth by the institution. (These criteria are found in your institution's P and T document, which you should review. We will discuss this further under "Designing Your Route.")

You may feel that you do not have an advocate in this system, but there are usually several people who can help you. Many institutions assign new faculty members a mentor (a senior faculty member or the chair of your department may be an effective mentor). Additionally, your dean of faculty affairs knows the intricacies of your institutional P and T process and is often an excellent resource for advice on different tracks and promotion criteria. But ultimately, you must take on the role of being your own best supporter. You must do the legwork and invest the effort to be promoted and or receive tenure. No one, with the possible exception of your mother or partner, is as interested as you in seeing you succeed.

The question is: How to begin? One way is to use the 4-D approach described here. Its four dimensions are:

- 1. Choosing your *destination*
- 2. Designing your route
- 3. Doing it (setting off on your journey), and
- 4. Documenting your progress

Choosing Your Destination

It may seem strange at the very beginning to be talking about the end, but early on, you need to decide where you want to go. Otherwise, you risk becoming someone who, in the words of humorist Stephen Leacock, "flung himself upon his horse and rode madly off in all directions."

Try to visualize your ultimate career goal, or the professional accomplishment that you would value above all others. Deciding on an ultimate career goal may be daunting, but you can examine areas that could become a niche for you, for example, academic scholarship, curriculum development, clinic administration, expertise in minimally invasive surgery, or research in simulation. With time, you may want to consider positions on the academic ladder. Would you like to become chancellor, dean, department chair, or division head? Would you like an opportunity to serve as residency director, student clerkship director, or chief of basic or clinical research? Or do you plan to use academics as a base for a career in government service, public health care, health management, private industry, or politics?

Perhaps you do not relish administrative duties and are not particularly attracted to research, but you are an exemplary clinician and teacher. Your interests may direct you to certain tracks for academic advancement. Diligent focus on your career goal will help you move forward, even though your destination may change over time.

How do you decide which goal is right for you? Mentors and role models often point out directions for junior faculty. Additionally, personality inventories may be helpful. If you have ever taken a personality inventory—such as the Minnesota Multiphasic Personality Inventory (MMPI-2), the California Psychological Inventory (CPI), or the Myers-Briggs Type Indicator (MBTI)—then you already have some idea of your personal strengths and weaknesses. If you haven't, you might consider taking one of these inventories to obtain an objective measure of your personal qualities. If you learn, for example, that you are the strong, silent, introverted type, then you may

not be happy as a chair or dean, since those jobs involve a great deal of interaction with people. Often, we only discover these things about ourselves by trial-and-error.

You might also search out people who are happy and successful in a position that interests you. Make appointments to speak with them. Find out what their jobs entail, what they like about them, and what they enjoy least. What has surprised them the most about their position? What did they do to prepare for their responsibilities, and what do they wish they had done? You may end up acquiring not only valuable information, but a mentor as well. (For more on this topic, see chapter 3, "Academic Mentors—Finding One and Being One.")

Even if you know who you are and what you want, life may intervene. External factors such as salary, location, and family considerations may take precedence. For example, an exciting job offer at Ideal University may be the answer to your dreams, but what if it's located in Northern Siberia? Are career opportunities available there for your partner? Does the school system meet the needs of your children?

If you cannot choose a destination at this time, pursue another route that leaves your options open. Always consider that your tenure clock may be running, particularly if you happen to be in an institution that requires you to achieve tenure within a set time period. It is important to know the P and T rules at your own institution to assess how much leeway you have to achieve your goals.

Designing Your Route

Once you have decided where you want to go, plot your journey on a timetable. Even without the ticking tenure clock to motivate you, it is wise to set some time-limited goals as a way to measure your progress.

The most important academic road map you can study is the document that governs P and T at your school. Most institutions give you a copy of the P and T document or have it online as part of the faculty handbook. If you don't have a copy, call the dean's office and request one, or ask for the web address and download it. Make sure you have the latest version.

Carefully review the document. Your strategy should be to advance your own professional mission as well as that of your department and institution, and also to meet the promotion criteria set forth in the P and T document—not a simple feat! You should be able to find the school's mission statement and other useful data in the faculty handbook. Check to see if your institution has a tenure clock. If it does, when does it start? How long does it run? Are there any exceptions or extensions for extenuating circumstances, such as parenthood?

Take care about when you formally join the faculty. At most institutions, the tenure clock runs on institutional time, not your time. If the clock advances every July 1 and you accept an appointment that starts May 1, you will have completed your first tenure-clock year only two months after your arrival. The solution is to wait until July 1 to assume your position, or to be appointed as an instructor or in another non-tenure-track position until then. An appointment and discussion with your dean of academic affairs may be helpful in interpreting the P and T system for you.

Investigate whether your institution has various paths, both tenure and non-tenure, that hold the promise of promotion as long as you demonstrate exemplary scholarly activity in one or two areas. Or is your institution the three-legged-stool variety that requires evidence of excellence in all three traditional areas: research, teaching, and clinical service?

Let us assume, for example, that your goal is eventually to become the dean for academic affairs (dean of faculty). What might help you to get the job? It is worth being strategic about the commitments you take on, always keeping in mind your goal. You should do everything you can to learn about faculty development. You should consider taking on administrative committee work with a focus on those areas that are important to academic affairs: for example, professionalism activities and student and resident teaching. Taking courses or workshops in areas such as adult learning or management skills may be helpful. You can also consider conducting research on educational topics.

The committee work you do should be in a related area, such as on the curriculum committee or the academic affairs committee. Offer to be on the department's education committee if there is one, or volunteer to be clerkship director.

The optimal strategy? To advance your own professional goals and those of your department while meeting all the criteria set forth in the P and T document. Not a simple feat!

You might also get involved with the educational groups that meet during the annual meeting of the Association of American Medical Colleges (AAMC) or with similar education-oriented committees in your own specialty. Becoming active in professional organizations is important for two reasons:

- 1. It helps you develop outside contacts who may serve as references when you need letters of support for your P and T application, or in case you decide to seek a new position in the future.
- 2. It helps you develop the national reputation that is one of the P and T requirements.

No matter what your ultimate destination may be, your steps in getting there should improve your skills and allow you to obtain additional specialized education, serve your department or school in areas that also benefit you, and become involved with the appropriate professional societies. In addition, every faculty member should learn to negotiate. The art of negotiation is knowing how to create a win-win situation. You can read books, take courses, or attend workshops, but however you acquire this skill, learn it well! The ability to negotiate is essential to your career and your success (see chapter 2, "Negotiating the Terms of Your Employment").

Doing It-Setting Off on Your Career Journey

Once you have designed your route, it's time to get on the road. The P and T committee will measure your progress in those areas they have decided are important. Your department chair or division chief also may have a direction in mind for you. Sometimes, his or her needs may be in direct conflict with yours. For example, your plan may call for more research when your department chair wants you to do more teaching. What can you do in a case like this? If his or her vision does not coincide with yours, you may need to negotiate to stay on the path that leads you to your goal.

Start by using the survival skills you acquired as part of planning your journey, when you took a course on learning how to negotiate. If you agree not only to teach but also to be the clerkship director, will you be given another half-day of protected time for your research? Negotiation should always be the first approach.

Learn to negotiate. It is a skill you will need for career advancement.

However, as medical school budgets get tighter and departments are forced to generate more of their own budget from patient fees, the most likely situation is that your department or division head will want you to see more patients. This expectation may be non-negotiable; across the board, less time is available to faculty members for either teaching or research. This creates a dilemma for you in that clinical service is often less important under P and T guidelines than research and teaching activities. Note that in certain tracks, you must be given enough resources, including time, to accomplish the requirements for promotion and tenure. This negotiating point may be helpful as you work to stay on the path leading to your goal.

Compromise may help achieve both your goals and those of your department administrators. If your priority is teaching, you may perhaps fulfill your obligation for clinical services in a setting where you can teach students and/or residents.

You can also look for a position at another school, where you might be able to pursue only those things you need and want to do as part of reaching your career destination. As long as you have been active in professional organizations and have developed contacts outside your institution, you should be able to learn about positions that are open. (See "Shopping Places for Academic Job Opportunities" on the next page.)



Special Encouragement for Women

Women face particular barriers in academic advancement. Although women currently make up 35 percent of medical school faculty members, 2009 data from the AAMC indicate they are underrepresented in the higher academic ranks of associate professor and full professor (AAMC data).

Gender	Instructor	Assistant Professor	Associate Professor	Full Professor
Women	20%	49%	18%	12%
Men	10%	37%	23%	30%

Additionally, women hold fewer than 15 percent of department chair or dean positions in U.S. medical schools. Although such statistics are discouraging, women can and do advance in academics. In an interesting work reviewing the status of women in academics, Dr. Linda Pololi discusses several myths about women's advancement (Pololi 2010):

- *Children prevent women from focusing on career.* Although women may have more conflicts about family-work balance, most women who advance in academics are partnered and have children.
- *Women lack ambition for leadership.* When women are asked to take on leadership positions, which are critical for academic advancement, they often eagerly accept. However, men report being asked more often than women to take on leadership positions.
- *Women lack necessary skills.* Women are less often assumed to have the right skills to succeed in leadership positions.

In order to succeed, women should look for role models and mentors, both female and male, to help them on their road to advancement. As women tend to focus on achievable goals to improve patient care, along with research and educational objectives, they may respond to leadership opportunities that allow them to advance those goals.

As you make progress along your career route, be mindful of how you spend your time. Committees are stealthy time-eaters; like certain lower life forms, they tend to bud off subcommittees. Whereas only two meetings a month may have been required at first, that may morph into four or five meetings a month. Especially as a young faculty member, be judicious about your commitments.

A strategy that may help is delaying. When you are asked to take on a new role or task, reply, "This sounds very interesting. Let me look at my current activities and give you my answer tomorrow." You then have 24 hours to determine if it really is a great opportunity that you want to accept, or to formulate a graceful refusal.

Be proactive—try to serve on a committee that coincides with your interests. If you say to your department chair or division head, "I know everyone is expected to do some service on department or university committees, and I would like to be considered for the _____ committee," this reinforces your commitment to an academic career and allows you to further your goals.

Documenting Your Career Journey

The job is never over until the paperwork is done, and this is especially true in academics. The 3-D rule of the 4-D approach is document, document, and document.

The 3-D rule of the 4-D approach is document, document, and document! You must offer proof of your scholarly activities.

The primary purpose for this collection of data is to offer proof of your scholarly activities—both their volume and their high quality. Research is just one form of scholarly activity. Your teaching and clinical obligations also should be met in a scholarly manner and produce scholarly results.

You should keep records of all your academic activities. Hopefully, you have administrative support to assist with this record keeping. If not, lobbying for this support is paramount to assist you in documenting your academic accomplishments. Get in the habit of keeping a record of every one of your academic activities. **Anything** you do, from lectures to publications to evaluations to national or regional presentations, should be included. Be especially sure to document the following four types of activities:

1. *Research activities*. Research is relatively simple to document. Keep track of the grant applications you prepare, those you receive, your publications, and any abstracts, papers, posters, exhibits, or audiovisual materials you present at professional meetings. If you review articles for a professional publication, or serve on a grant review committee or editorial board, make note of those activities as well. Any special postgraduate courses you take or training you acquire should also be mentioned.

- 2. *Teaching activities.* The education of medical students is the primary reason for the existence of the medical school. Therefore, teaching is the activity that is common to all faculty members. Teaching at a medical school takes many different forms. These include:
 - Facilitating small groups in the case-based learning format
 - Leading individuals or small groups in both cognitive and skills-based activities
 - Educating in the classroom by lecture, seminar, or group sessions
 - Precepting in the clinics, wards, bedside, operating room, or other clinical sites
 - Modeling in clinical, laboratory, committee, or other professional settings
 - Instructing in the research lab
 - Instructing in the use of databases, records, surveys, or populations
 - Other types of teaching

It is important to include all these teaching activities in your portfolio. Additionally, any and all evaluations by students and residents are important components of your portfolio. Given the primacy of teaching, it is expected that faculty members striving for promotion will be judged on the quality, and to some degree on the quantity, of their teaching. Similarly, faculty members should recognize that skills can always be improved; evidence of your efforts to improve teaching is also expected.

3. *Clinical activities.* Excellence in this area may be difficult to document, although many institutions now generate productivity reports. These reports at least give billing data, if not quality data. Faculty members and or departments keep records of clinic hours, patients seen, procedures done, income generated, and other such quantitative data. Tools for the evaluation of clinical performance are being developed, however (see chapter 9, "Rewarding Excellence: Systems for Motivating and Recognizing Medical Faculty Achievements").

Medical students are educated to become clinicians, and the faculty who educate students in clinical medicine should themselves be excellent clinicians. Faculty members who strive for promotion should expect to be judged on their clinical capabilities.

4. *Scholarly activities.* A modern version of the Hippocratic Oath states "I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow" (Lasagna 1964). The admonition to share knowledge is as time-honored as any contract the physician has with others in the profession.

As the means of sharing such knowledge, scholarship is based on the activities of inquiry, research, and discovery.

- Inquiry can be considered the asking of a question. Inquiry involves the collecting and systematic analysis of facts and observations and the framing of that analysis into a medically relevant question.
- Research also involves the asking of a question but carries through to the design and implementation of the means to answer the question.
- Discovery is the process of obtaining, mastering, and making known knowledge. That knowledge may be entirely new, or it may be collected and interpreted in a medically relevant way.

Scholarship is also one of the criteria by which faculty members should be judged in consideration for promotion. Depending on the faculty member's duties and skills, scholarship may take different forms. But it should:

- Result in an identifiable product or output
- Be made public and available both within and outside a medical school
- Be subject to review and critique by other scholars in the field
- Adhere to the highest standards of ethical conduct of research
- Contribute to knowledge by being reproducible and progressive

Promotion and Tenure

Promotion is the primary means by which a medical school rewards a faculty member's contributions and academic achievements. Promotion represents recognition that the faculty member has made, and is continuing to make, contributions to the education of medical students and is engaging in the honored activities of inquiry, research, and discovery. Promotion is more than a routine reward for satisfactory service but reflects a positive appraisal of professional competence and accomplishment.

A candidate for promotion is evaluated by peers and appropriate administrators, and the evaluation should be conducted according to openly available criteria that are consistently applied. The faculty member should be assured that the following goals are fundamental to the promotion process:

- The promotion process shall recognize and reflect the individual's advancement in the areas of teaching, clinical care (if relevant), scholarly achievement, and service in health care in support of the school, the community, and the broader medical profession
- At the time of initial appointment faculty shall be made aware of the criteria by which they shall be evaluated for promotion in the track to which they are appointed
- Assessment shall be made of progress to promotion well before the time for consideration of promotion

Bon Voyage

The time has come to begin your own journey in academic medicine. There is no better way to start than to begin today to assemble your academic or teaching portfolio (also addressed in chapter 7, "Documenting Your Career: The Curriculum Vitae and Teaching Portfolio"). Items to start thinking about including are:

- 1. Curriculum vitae, possibly with narrative of your philosophy of and experience in teaching, patient care, research, and/or service philosophy
- 2. Licensure, board certification(s), maintenance
- 3. C.M.E. certificates
- 4. Evaluations: by chair, peers, organizations, residents, fellows, and/or students over several years
- 5. Clinical activity: time commitment/contract (inpatient, ambulatory, responsible positions held) with patient evaluations, "thank-you" notes or accolades, scorecards
- 6. Service commitment: committee memberships in medical school, professional societies/organizations; include positions held and documentation of participation
- 7. Teaching commitments: courses, classes, blocks, etc.; resident presentations, medical student presentations with PowerPoint printout
- 8. Scholarly activity:
 - a) National/regional/local presentations, poster/abstract presentations, articles/books/book chapters published; include copies if feasible
 - b) Relevant published CDs, DVDs, or manuals
 - c) Other relevant writings for the public or for radio/TV appearances
- 9. Grants, contacts, intellectual properties (with title of project, source, time period, amount, relevant role in citation, and any reports resulting from such projects)

As you start your ascent up the Ivory Tower, you will have no better preparation than to read the chapters that lie ahead. Have a safe and successful journey!

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Faculty Diary of Academic Accomplishments

Month(s)/Year Reviewed

TEACHING

- 1. Medical students
 - Clinical correlations (record hours, evaluations)
 - Clerkship lectures (record hours, evaluations)
 - Preceptorships (record hours, evaluations)
 - Clinical one-on-one (record hours, evaluations)
 - Student advisor (record hours)
 - Examination preparation and administration (list and record hours)
- 2. Graduate students
 - Graduate courses (record hours, evaluations)
 - Graduate seminars (record hours, evaluations)
 - Major advisor (list and record hours)
 - Thesis committee member (list and record hours)
- 3. Residents
 - Formal lectures (record hours, evaluations)
 - Conferences (record hours, evaluations)
 - Teaching rounds (record hours, evaluations)
 - Clinical one-on-one (record hours, evaluations)

4. Fellows

- Formal lectures (record hours, evaluations)
- Conferences (record hours, evaluations)
- Teaching rounds (record hours, evaluations)
- Clinical one-on-one (record hours, evaluations)
- 5. Continuing education
 - Formal courses (record hours, evaluations)
 - Grand rounds (record hours, evaluations)
- 6. Activities to improve teaching (list courses, seminars, etc.)
- 7. Other
 - Curricula and teaching materials developed (list and record hours)
 - Community presentations (list, record evaluations)
 - Professional presentations (list, record evaluations)
 - Honors or awards (list)

RESEARCH

- 1. Grant proposals and awards (list, record amounts and terms)
- 2. Publications
 - Peer-reviewed papers (list)
 - Non-peer-reviewed papers (list)
 - Books/chapters (list)
 - Abstracts (list)

3. Presentations at meetings

- Program sessions (list)
- Posters (list)
- Audiovisuals (list)

4. Activities to improve research (list courses, seminars, etc.)

CLINICAL SERVICE

- 1. Clinical hours (record per week)
- 2. Surgeries, special procedures, etc. (list totals for each type)
- 3. Billings and collection (list totals)
- 4. Protocols developed (list)

ADMINISTRATION

1. Duties as:

- Chairman or dean (record hours)
- Division chief (record hours)
- Clinical director (record hours)
- Clerkship director (record hours)
- Graduate program director (record hours)
- Committee service (list, record hours)
- 2. Activities to improve administrative abilities (list courses, seminars, etc.)

PROFESSIONAL RECOGNITION

- 1. Journal editorial board member or reviewer (list, record terms)
- 2. Office or committee service in professional society (list, record terms)
- 3. NIH study section (list, record terms)
- 4. Guest lectures, professorships, and fellowships (list, record dates or terms)

MISCELLANEOUS

- 1. Radio/television appearances (list, record dates)
- 2. Community service (list, record dates)

C H A P T E R T W O

Negotiating the Terms of Your Employment

Bruce A. Meyer, MD, MBA

Executive Vice-President for UT Southwestern Health System CEO, University Hospitals Executive Director, Faculty Practice Plan Professor, Department of Obstetrics and Gynecology UT Southwestern Medical Center

You are responsible for directing your career in academic medicine. As is detailed in other chapters, it is valuable to find mentors and receive guidance from other faculty, but ultimately your career success is in your hands. The beginning of that responsibility consists of negotiating the terms of your employment, which include your job description.

Becoming skilled at this process benefits you and your institution. It improves your chances of achieving a successful and satisfying career. It builds stronger, more trusting relationships between you and your institution's leadership, including your department chair. Some of these relationships may develop into mentorships, which can be extremely helpful to you. (For more on how a mentor can be crucial to your success in academic medicine, see chapter 3, "Academic Mentors—Finding One and Being One.")

This chapter leads you through the sometimes complex, always vital process of negotiating your terms, from the initial offer through the contract signing and beyond.

Get It in Writing

Offers of an academic job often come over the phone from a dean, department chair, or chief of a division. Thank the person for the offer, but don't say yes until you've seen the details—the terms of your employment—in writing. These will be sent to you in a formal letter of offer and eventually in a contract.

Because the contract represents a long-term commitment, it should include all of the terms in writing and in detail. Do not rely on oral agreements, or your letter of offer, as the contract supersedes these other agreements. These terms are recognized as contractual if they can be substantiated, but they are also subject to misunderstanding and dispute. Asking for a more detailed written agreement does not imply that you don't trust your future employer. It is to everyone's advantage—yours and the institution's—that all parties clearly understand and agree to all employment details in advance. What if you suspect that the institution may not be negotiating fairly and honestly? Stop the negotiations and voice your concerns. Resume the negotiations when your concerns have been addressed to your satisfaction.

Do not view your chair or dean as an adversary during negotiations. He or she wants you to succeed. It's costly and time-consuming to recruit, hire, and train new faculty. Successful faculty reflect well on their superiors and help further the department's goals.

As you negotiate the terms of your employment, have realistic expectations for your expertise, autonomy, and status. But don't sacrifice your personal career goals. Your job should empower you to succeed, your work should be meaningful, and your working environment should reinforce your self-esteem.

Understand the Scope of Your Duties and Responsibilities

The job description you negotiate will serve as a blueprint for advancing your career within the scope or mission of the institution. For that reason, you and your new employer should agree from the start on your duties and responsibilities as a teacher, researcher, and clinician.

Unclear expectations will cause problems down the road. These might include unrealistic productivity demands, misunderstandings about the extent of "on call" and weekend work, and disagreements about physical accommodations (such as office and/or laboratory facilities) or the number of support staff assigned to you. Even though some of these areas may be difficult to negotiate in advance, it's best to address them at the outset.

Department chairs face economic pressure to "right-size" their faculty and increase productivity. Your institution will probably expect you to perform many duties and fill several roles, including committee work, mentoring and supervising residents and students, and other administrative duties. Find out about these expectations in advance. The checklist on page 29 can help you reach agreement with your new employer about the details of the job.

Determine How Time and Resources Will Be Allocated

No institution could possibly predict all of your future teaching, research, and clinical responsibilities. However, you should be given a clear indication of how much time will be allocated to each of these activities and how important each is for promotion and tenure (P and T) purposes. Whether your goal is to become a well-funded, well-published researcher, a cutting-edge clinician, or a highly skilled educator, you should try to negotiate for enough time and resources to succeed.

Research productivity has been the traditional benchmark for promotion. Productivity is measured by grants funded, papers presented, and abstracts and papers published. More recently, promotional tracks that do not require fully funded research have become more commonplace at academic institutions. The physician-researcher has been joined on the tenure track by the clinician-teacher. To evaluate the latter, many P and T committees now require teaching portfolios. (See chapter 7, "Documenting Your Career: The Curriculum Vitae and Teaching Portfolio.")

If you expect to achieve your promotion goals, it is critical that you know the institution's criteria for promotion and tenure, if you desire it. It's also vital that you have an annual review of your progress. (See chapter 4, "Measuring Your Performance.")

Before you accept an appointment, determine how committed the institution—and your department—is to research, teaching, and clinical care advancement.

If research is your focus, ask questions like those listed under "Research Responsibilities" in the checklist on page 29. Make sure that you will be allocated adequate time for research. In general, faculty members cannot be productive bench investigators unless they devote at least 30 percent of their time to research. With increasing competition for funding, even 30 percent may be inadequate. Funded research proposals often require a 50 percent to 80 percent time commitment. Research time should not be interrupted by calls to cover clinics, see unscheduled patients, or perform other duties. A chair who holds research as a priority will work to protect the research time of faculty members.

If you prefer the clinician-teacher career path, ask about how your mentor(s) and the department will help you develop your skills as an educator. Numerous opportunities exist for professional development of physicianeducators, including through APGO and at universities nationwide. Ask what support you would receive for taking courses at the graduate level or at national seminars in leadership development, professional skill building, and educational expertise. It may be critical to receive additional training in business or legal skills (leading to MBA, MHA, or JD degrees). Alternatively, added training in epidemiology or education may further your career (such as MPH or Med degrees). It is important to know whether the institution would support the time and offset or cover the expense as an investment in your future. Make similar inquiries about how the department would support your efforts to develop your clinical care skills. Numerous regional and national educational courses exist to keep your clinical skills at the cutting edge. Make sure you have an agreement with your prospective employer about what kind of commitment (in terms of time and financial support) the institution will make as you pursue these types of professional opportunities. Use your mentor to develop a specific, multi-year plan for your professional development.

Faculty practice plans at medical schools depend primarily on clinical practice revenue for financial support. For most faculty members, this is a time expenditure that often does not count as a scholarly activity for P and T purposes. If plans call for you to spend a majority of your time in clinical activities, then your employment agreement should specify how these activities will count toward P and T.

A Checklist for Understanding Your Duties and Responsibilities

TEACHING RESPONSIBILITIES

- What will be the extent and types of your teaching responsibilities (e.g., didactic lectures, small-group learning, seminars, clinical bedside teaching)? How much time will you be expected to devote to each?
- How much of your time will be allocated to teaching? Does this include preparation time, counseling students, etc.? Is the time adequate? Will your protected education time be paid through teaching funds, or will you need to earn it from clinical revenue?
- Is teaching excellence considered in the institution's promotion and tenure (P and T) criteria? If so, how is it documented? How does the institution help you create and maintain a teaching portfolio?
- Will you have administrative responsibilities related to teaching (other than routine evaluations and scheduling of presentations)? If so, how much of your time will be protected to perform these tasks?
- What technology is available to you and to your learners to assist in the educational process (e.g., teleconference, applications like "Go To Meeting," high-definition cameras, and other technology).

RESEARCH RESPONSIBILITIES

- Who will be your research mentor? Is the mentor aware of that responsibility, and has he or she made a commitment to you?
- How much of your time will be allocated to research? Will it be protected block time, and how will it be blocked (i.e., will you have a day per week, or will it be a month at a time)?
- Will start-up money be available for your research? How much and for how long? Will there be dedicated wet lab or dry lab space for your research?
- Does the department have laboratory technicians or research assistants to help with your research? Will they have space to accomplish their work?
- What is the department's track record in research? Are there ongoing projects?
- Where can you turn for help in developing research proposals? Is there a contracts-and-grants office? Are there resources in the department or institution to help write grant proposals, consent forms, data collection vehicles, and institutional review board (IRB) approval forms?
- Is support available for data analysis (e.g., computer support and a statistician available for consultations)? Will you have dedicated time from this person or persons? If so, how much?

CLINICAL RESPONSIBILITIES



• What departmental, medical school, or hospital committees will you be expected (or eligible) to serve on?

Most schools expect clinical faculty members to be on call some nights and weekends. In some specialties (especially obstetrics and gynecology), this may require being in the hospital to supervise resident physicians and provide coverage for faculty members' patients. View it as a good sign if all or most of the department faculty—including the chair, division directors, other physician administrators, and subspecialty physicians—participate in these responsibilities. However, it is important to have a clear understanding of how often you will be expected to be in the hospital on call, how often you will be asked to take calls from home, and if there are any geographic restrictions on where you can live related to call responsibilities.

Some departments allow faculty members above a certain age to be exempt from call duties, or they allow senior physicians fewer calls. Such policies should be disclosed at the time of recruitment.

As noted above, becoming an outstanding educator requires more than just experiential knowledge. Make sure that you understand your specific responsibilities relative to the education of residents and students. In addition, be certain to learn what resources are available to you in order to fulfill that commitment. Such resources include protected time for educational preparation and accomplishment, audiovisual support, teaching materials, clerical help, and communication and information technology.

Clarify Program Development Responsibilities

New faculty members are sometimes recruited to develop new programs or to revitalize existing ones, as well as to research, teach, and perform clinical duties. If you will be developing a new program, the project's details should be spelled out in your employment agreement, possibly as an appendix.

Program development may be one of the most exciting aspects of your new job, but it requires time, space, capital equipment, and personnel. Many new programs fail—along with the individuals developing them—because of unrealistic expectations and inadequate budgeting. (For more on this topic, see "If You Are in Charge of Developing a New Program" on page 32.)

Identify the Chain of Command

Lines of authority need to be clearly identified, and your contract should state to whom you will report. Misunderstandings can develop if you expect to report to one person and find yourself reporting to someone else. It is also important to know who will be evaluating your performance and how often evaluations will occur. Periodic feedback is crucial to shaping your career.

A clearly defined reporting structure may also help to protect you should your institution or department reorganize under new management. Purposeful organizational change is necessary and keeps an institution progressive. Arbitrary changes disrupt faculty functions, including undergraduate and graduate medical education, research, and administrative programs. A defined reporting structure will protect you and the institution against arbitrary changes.

Learn the chain of command, and make a point of scheduling regular feedback meetings with the person(s) who will evaluate your performance.

If You Are in Charge of Developing a New Program

- *Establish the program's goals.* Verify them with your chair or the person to whom you report, and set an appropriate timeline for accomplishing the goals. Success cannot always be measured in the first year or two. With new programs, three years are usually required to reach a break-even point, and five years may be needed to evaluate the return on the initial investment. Be aware that tight fiscal times make long-term financial commitments difficult to secure.
- *Obtain financing.* New programs require multi-year budgets. If you must obtain "venture" capital from your department or institution, clarify the provisions for its return. Do not accept a verbal promise that future funding will be there. Get a multi-year financial commitment in writing from the department or institution.
- *Allocate space*. Clinical programs serving patient care needs require adequate parking space and access to the program facility. If old space is being renovated for your program, an architect or other knowledgeable planner should evaluate the space. Renovation, interior design, furnishings, and equipment specific to the program all must be included in the allocation. If you are responsible for the program, get in writing that you will be involved in planning the space and determining who will plan the space with you (e.g., architects, facilities engineers).
- *Create an operating budget.* Budgeting for capital expenses should be over several years; you will need time to bid, install, and implement new technology. Include information-management technology in the budget. Also include the cost of instruments and tools, maintenance, facility space, and special requirements, such as ventilation and climate control. If you find that you have excess capacity following the purchase of an expensive instrument, invite other department colleagues to use it. If you do not need the instrument immediately, or if demand is not great, consider purchasing capacity from another institution or renting the equipment part-time.
- *Plan realistically for personnel needs and expenses.* Often, new programs fail because of inadequate budgeting for key personnel. No one should be recruited for a new program unless the money exists to support him or her. Adding appropriate personnel will reduce cash flow in the short term, but realistic budgeting and anticipation of personnel needs can prevent long-term financial problems.
- *Define early measures of success.* A new program needs built-in—and realistic—measures of success. Early enthusiasm can cause you to overestimate a program's prospects and underestimate the time required to establish it, market it, and bring it up to operational efficiency. Do your best to make your projections realistic. Base them on both upside potential and downside risks.

For example, a new faculty practice plan was forecast to lose \$950,000 its first year of operation. The actual loss was \$800,000. For the second year, a loss of \$300,000 was budgeted. The actual loss was \$122,000. In its third year, the program was budgeted to break even. Instead, it made a substantial profit. The program proved successful despite early losses because those losses were anticipated. In your negotiation, you should know who has control over the monies that were committed but not used. Will you have access to those funds for other investments into the program or for new program development?

Understand Your Compensation Plan

Compensation is the total support you can expect to receive from your new employer. It includes base salary, income from clinical practice activities, deferred compensation, retirement, insurance, vacation, sick leave, and other benefits. Compensation packages vary widely, so be sure to compare several different packages and understand what you are being offered.

Base Salary

Although salary is a key consideration in weighing a job offer, do not give it top priority. Consider the job description first. If you are not comfortable with the career opportunity and the people with whom you will be working, no salary is going to compensate for a lousy job with poor working conditions.

Market data usually dictate salary figures. The annual faculty salary survey by the Association of American Medical Colleges (AAMC) is an excellent resource for prospective faculty members and institutions wishing to develop fair compensation packages (AAMC 2011). This survey includes 41 tables of income data (base salary, supplemental income, and total income) for medical school faculty. The data are listed by geographic sections of the United States, by public and private charter institutions, by academic and clinical discipline, and by academic rank. Many institutions set their compensation packages by AAMC tables and adjust annual raises to regional or national fluctuations. There's a potential downside to this method, however. In some clinical specialties, there has been little growth in AAMC-based compensation; for some, income decline is predicted.

The Medical Group Managers Association (MGMA) also publishes annual, regionally categorized data about academic and non-academic compensation (ValuSource 2011).

In recent years, the salary outlook for full-time faculty has become increasingly uncertain because of factors affecting medical school funding. Many state legislatures have reduced funding for higher education. Congress has indicated that it wants to cut the federal deficit by reducing Medicare's support of medical education, particularly the indirect funds to hospitals that cover these costs as well as the inter-governmental transfer funds available to institutions of higher education. In addition, new reimbursement schemes for healthcare delivery are being implemented in both the public and private sectors, which will clearly affect reimbursement to both clinical providers and institutions. When negotiating your compensation plan, be aware that the situation is fluid, and try to be up-to-date on the economic environment affecting healthcare and academic institutions in the local community.

Because base salary is non-variable, it is the portion of compensation most commonly used to calculate such fringe benefits as health insurance, life insurance, disability insurance, and retirement benefits. Usually, the higher the base salary, the greater the fringe benefits. Larger base salaries usually carry fewer variable sources of income, such as clinical income, incentive income, or educational funds, with less immediate cash flow. This means that you are likely to be on a fixed income salary for a longer period of time, either until your revenue stream(s) increase or you renegotiate your contract.

You are entitled to know how your base salary is calculated—and how it will be funded. Some base salaries are funded as line items in the department's budget, typically from clinical patient care revenues or state tax dollars. Others may be funded in part from "soft" money sources such as grant support, departmental overhead from prior grants, medical school educational dollars, or excess clinical revenues (i.e., clinical dollars that are not otherwise committed to paying salaries or expenses). Obviously, soft money sources are more vulnerable to elimination, making your job (and salary) more vulnerable, too.

Practice Plan Income

Income received by your institution from direct patient care activities, also known as practice plan income, may constitute a large part of your total compensation. The dollars may either be guaranteed (i.e., stipulated as a monthly or annual figure based on projected productivity) or be distributed according to a formula computed on the collections (or RVUs) from patient care activities.

Under fee-for-service reimbursement schemes, practice plan income tends to be distributed according to a formula. Under capitated reimbursement arrangements, a set amount usually is guaranteed. As "bundled" payments, Accountable Care organizations and Health Care Innovation Zones proliferate; these revenues may come to the institution in more complex arrangements. While capitated revenues are becoming increasingly rare, these other arrangements are growing. While it is likely that direct revenue from patient care activities (which may or may not include clinical revenues from the supervision of residents) will most likely be the primary source for this portion of your salary, you should keep informed about new payment systems, both for your own knowledge and for your ability to educate learners about the economic environment that they will enter after graduation.

If your residency training did not cover billing, coding, and documentation issues, ask for instruction and mentoring in this area. Otherwise, you may end up providing services without earning revenues.

It's customary for practice plan arrangements to be set in writing as a pro forma appendix to your initial employment contract. The document should describe how practice revenues and expenses will be managed and how income—including any income that accrues from your practice after you leave the plan—will be distributed.

Address these issues during negotiations rather than later. Before signing a contract, investigate the plan's organization, governance, charter, quality of management, and billing and collection rates. Ask other faculty members how happy they are with the practice plan. Satisfied faculty members are the best indicators of a plan's success.

When negotiating your practice arrangements, try to avoid having to monitor or account for the practice's billing and collections activities. Such time is poorly spent and creates conflicts. An organized, well-run faculty practice plan, especially one with a professional manager, presents the smallest risk of impropriety and manipulation. For example, senior faculty members should not skim off the highest income-generating procedures and leave junior faculty with time-consuming but poorly remunerated services. You should receive regular productivity reports that delineate how your work is being calculated.

Deferred Compensation

Few academic institutions offer deferred compensation, although some offer supplemental retirement plans that pay out after you have been with the institution for a specified number of years or have reached a predetermined age. Generally, these arrangements are negotiating points for retaining senior faculty members. It's unlikely that deferred compensation will be part of your initial contract, but you should be aware if such opportunities exist.

Retirement Plans

Most academic institutions offer their employees a retirement plan, though its form varies from institution to institution. Usually, retirement income is provided in a way that offers tax advantages to both the institution and the employee.

Internal Revenue Service (IRS) regulations limit the amount of compensation that can be included in retirement income calculations and prohibit employers from discriminating in favor of highly compensated employees. Some institutions supplement their basic retirement plan with special arrangements or extra cash. Even with such supplements, your institution's retirement program may not fully meet your future needs, and you may find it necessary to do additional financial planning.

Entire books have been written about retirement plans (see "Suggested Reading" on page 46 for recommended titles). Following are the basic characteristics of each type of plan.

Defined-benefit plan. The benefits provided by this type of plan are based on a formula that provides an exact—or defined—amount of monthly income that you can expect upon retiring. For example, your formula might be 50 percent of your average pay after five years of service, or it might be a portion of the average of your pay during the last three years that you worked as a full-time employee.

Usually, defined benefits become available only when you reach retirement age, and only if you become vested. Vesting involves staying at the institution for a specific amount of time. If you leave before becoming vested, you receive no benefits. Thus, if you expect to move often during your career, this may not be your best retirement option. Because defined-benefit plans are costly for employers to maintain, they are becoming rare.

Defined-contribution plan. In recent years, most institutions have turned their traditional defined-benefit plans into defined-contribution plans, which encourage employees to save at their own expense rather than at the expense of the employer. Instead of defining the benefit level to be paid to you after you retire, these plans define the contribution that the employer will make toward your retirement. The funds grow with interest to produce a lump sum that becomes available at your retirement, or sometimes sooner.

Defined-contribution plans frequently require that you defer or contribute a portion of your base salary, which then is matched by your employer. This may be 1:1 or more or less than a full match of your contribution. In addition, there may be a cap on the amount of money that the institution can contribute to your retirement plan (this is much more common at state institutions). Some plans also require cliff vesting (e.g., a minimum length of tenure on the job, such as five years) before you can receive benefits. The contributions are yours after you are vested and can be rolled over into another plan of your choosing should you leave the institution.

The popular 403(b) plan is a type of defined-contribution plan. The 403(b) allows salary deferrals to be put into individual accounts, sometimes with a matching amount from the institution. You manage your own investment, with IRS-defined dollar limits to how much of your income can be deferred. Speak with an independent financial planner to determine if this type of plan will produce a sufficient retirement for you and your family.

Some academic institutions offer both defined-benefit and defined-contribution retirement plans. You may find this type of combination plan attractive. Run the numbers (or have an accountant do it for you). In addition, some faculty practice plans are structured so you receive two paychecks, one from the medical school and one from the practice plan. Each of these income sources may have retirement plan options that you'll want to consider.

Supplemental retirement income. Once you understand how much income will accrue under your future employer's existing plans, you can compare that amount to your projected needs and negotiate accordingly. The institution may be able and willing to offer a supplemental pension program—or not. More and more faculty practice plans have a set of benefits, including supplemental retirement income that cannot be individualized. Because supplemental programs can result in retirement savings in excess of what the IRS allows, they are offered without the benefits of preferential tax treatment. Such arrangements, therefore, must be carefully designed. Be sure to get good legal and tax guidance.

Split-dollar plan. Another approach to building a retirement fund is split-dollar insurance. Your employer pays a premium to an insurance company. Part of it is used to purchase insurance, and the other part to build a cash fund. Split-dollar plans receive favorable tax treatment and are available in many forms. Their price and cost effectiveness depend on your age, the portion of the premium that is devoted to the death benefit, and the commission charged by the insurance broker. Usually, commissions and setup costs are charged in the initial years, which means split-dollar plans are cost effective only when you stay in them at least 10 (and usually 15) years. These kinds of arrangements have become increasingly rare in academic medicine.

Insurance Benefits

For many academic physicians, rising insurance costs play a crucial role in determining whether they remain with a current employer or seek other opportunities. No wonder, then, that insurance benefits are a central negotiating issue.

> The rising cost of malpractice and health insurance can make you a captive to your job.
Health insurance. Most institutions have switched from traditional indemnity (fee-for-service) health insurance to managed care programs or health maintenance organization (HMO) insurance. There are numerous questions you should ask about the health insurance program(s) offered by your prospective employer; see below for examples. Direct your questions to the health plan's administrator, not your prospective employer. Usually, you can cover all the questions in one phone call to the health plan, using the plan's toll-free number. Alternatively, the human resources department may have a benefits expert who can help answer these questions. Also, ask other faculty members if they are satisfied with their health plan. Their responses may be the best indicator of a plan's quality and convenience.

Most institutions offer multiple plans. Give careful thought to which is right for you and your family.

Questions to Ask About Health Insurance

- Does the plan exclude preexisting conditions? (This will be moot if the Affordable Care Act remains law, but with the existing legal challenges, it would be good to understand the plan design of your institution.)
- Are there other exclusions to coverage (e.g., addiction, infertility, rehabilitation)?
- What health conditions carry coverage limits?
- What is the deductible that the employee pays before insurance benefits begin?
- What is the co-payment that the employee pays, and at which sites—ambulatory, emergency room, ophthalmology, etc.?
- What is the extent of insurance payments for drugs, medical appliances, and dental, orthodontia, and vision care?
- What choice over physician specialties and individual providers does the plan allow, and what are the provisions for switching providers?
- How long has the average provider been affiliated with the plan?
- Are there assurances that current providers will stay with the plan?
- What are the terms for using out-of-network providers?

Life insurance. Life insurance coverage is usually a multiple of two to four times your base salary, but many institutions offer to pay for a defined policy dollar value—say, \$500,000—rather than a multiple of your salary. Make sure to inquire whether you can purchase additional insurance (at your own cost, at a discounted rate) through your employer. Most likely, you'll be offered a term policy that has no cash value and that will terminate at the end of your employment. Financial planners generally advise people to carry other life insurance that is portable (insurance that you always have, no matter where you work), especially if you have dependents. The main purpose of life insurance is to protect the people who depend on your income. Make sure you know if your life insurance is portable if you leave that employment.

Disability insurance. Most institutions offer group disability insurance to their employees. (It's called group insurance because all qualifying employees are covered.) The law limits group disability insurance to 60 percent of an employee's salary (generally only the base salary). You must wait up to six months after the disability occurs before most group policies take effect. Some employers will offer short-term disability policies that can cover this gap, but you generally need to pay out of pocket for the policy. Also be sure to understand if you can purchase a cost-of-living "escalator" so that the value of the policy increases rather than remains fixed over time.

Group disability policies seldom provide benefit payments when the disability keeps a person from performing only the work of a specific occupation—surgery, for example. Usually, the policy pays you only if you can't perform any job for which you are reasonably trained. Under many group disability policies, therefore, a surgeon who loses the use of a hand may receive benefit payments only for a specified period of time—say, 18 or 24 months—because he or she would be capable of performing other medical duties.

For this reason, many physicians also carry individual disability insurance that covers them for their occupation. This type of policy, known as an "own-occupation" disability policy, is becoming difficult if not impossible to obtain. If you can get it, and as long as you purchase the policy before signing an employment contract and prior to the effective date of your employer's group policy, you may be able to obtain coverage exceeding 60 percent of your income. Doing this early is important, because most institutional employment benefits will cover disability up to a certain maximum of dollars or a percentage of salary. Thus, they'll fill in a gap in coverage up to that maximum, or provide a specific benefit. Individual disability insurance is expensive, but it may be your only protection against loss of income from prolonged or permanent disability.

Long-Term Care Insurance

It is increasingly common for employers to offer long-term care insurance. This insurance typically covers home care, assisted living, adult daycare, respite care, hospice care, as well as nursing homes and Alzheimer's facilities. Long-term care insurance covers care generally not covered by health insurance, Medicare, or Medicaid. Individuals who require long-term care are usually not sick in the traditional sense, but instead they are unable to perform the basic activities of daily living. Given the high likelihood of needing this kind of care, it is important to know if your employer offers this as a benefit or pays a portion of the cost.

Professional liability (malpractice) insurance. This type of insurance is essential for people in medical practice, and most institutions provide it as a fringe benefit. Make certain that your coverage is adequate and that your institution has risk-management and loss-prevention education programs in place to help limit your liability— and take advantage of any education that your institution offers with regard to loss-prevention programs. Also, evaluate the type of liability insurance provided and, if possible, negotiate an occurrence policy that covers you into the future.

Occurrence-based insurance protects against any incident occurring during your coverage period, regardless of whether you are still covered (or employed) when the suit is filed. In contrast, a claims-made policy protects

against claims made only during your coverage period. Once a claims-made policy is discontinued (such as if you relocate or cease practicing), you are no longer protected against future claims arising from incidents during the coverage period (while you were employed at that institution).

As an addition to a claims-made policy, it may be possible to purchase tail coverage that protects against claims arising in the future for medical care you provided in the past. Some tail coverage policies are so expensive that they could make you a prisoner to the institution, as they commonly cost two to three times the annual cost of the claims made.

Investigate these issues before accepting a new position. If the institution provides only a claims-made policy, negotiate who pays for the tail (if one is needed) before beginning employment. Ideally, you should not have to pay for tail insurance; this provides you with maximum flexibility with respect to future employment. Carefully examine the amount of coverage before you begin employment. You want to ensure that your family will not be financially harmed by any settlement or judgment against you.

Leave and Vacation Time

Annual leave time varies from institution to institution, but 15 to 20 working days is fairly standard. Some institutions include national holidays with vacation time, while others do not. A few institutions include unused sick time with leave time. In that case, you may have 30 to 35 days each year for vacation, illness, or personal leave. It's prudent to reserve some of those days for illness or emergencies.

Some institutions buy back limited amounts of unused vacation time at intervals, while others promise to pay for unused vacation time if and when you stop working there. Few institutions reimburse individuals for unused sick leave (although some state institutions retain this benefit for state employees), but some have programs for transferring sick leave to an institutional bank for the benefit of others who need it.

Institutions used to approve vacations ad lib—meaning that when someone asked for vacation at a certain time, he or she usually got it. Today, more restrictions are being placed on vacation requests. The timing of your vacation will likely be subordinated to the needs of the institution and other individuals. As a new faculty member, you can expect to be on call for some major holidays. However, it's unfair for a new faculty member to cover all holidays for a year or more, or even a significant—and disproportionate—share. Be sure to discuss these matters during the negotiating process.

Similarly, it is crucial to understand the maternity and paternity leave programs at the institution, even if you are not currently planning to start a family. A number of questions are important to ask:

- Is time offered, and how much?
- Is it paid or unpaid leave?
- Does this time come out of vacation/sick time or are you required to use FMLA (Family Medical Leave Act) time?
- How and when should I request leave?
- How do I decide when to start my leave, especially if I have pregnancy complications?
- What happens to my benefits while I'm out on leave?
- What if I'm adopting a child or taking in a foster child?
- How does the short-term disability program work?
- Will I have to pay income tax on disability income?
- What do I do when my short-term disability coverage runs out?
- How can I find out whether I'm entitled to unpaid leave?

Continuing Education Benefits

Faculty members bring to an institution intellectual capital that must be sustained and nourished. This is accomplished by attending professional meetings and educational seminars, subscribing to journals, joining professional associations, taking sabbatical leave, and purchasing books and computer software. Institutions have been generous with these benefits in the past. More recently, discretionary funds for continuing education have become scarcer. Inquire about these funds and maximize their use.

Most institutions allow you to use a specified amount of continuing education funds at your sole discretion and/or that of your superior. Some departments require faculty members to join specific professional societies, thus decreasing your discretionary funds. It is worth considering negotiating for subscriptions to specific journals or periodicals if they directly apply to your role in the department. For example, if you have recruiting responsibilities, payment for the AAMC or MGMA annual publications on faculty salaries may have real value. Similarly, many organizations now require payment to access to their online publications. In addition, membership dues are increasingly expensive. It is crucial to have negotiated payment for membership in specific professional organizations—as well as having some flexible funds for this purpose as you determine that other organizational membership may be beneficial.

Learn about continuing education requirements early to prevent conflicts later:

- Will you have a set amount of dollars with which to accomplish all of your CME? Or will only your costs for a set number of meetings be covered?
- Will the costs for specific annual meetings be covered (e.g., ACOG, APGO, or your subspecialty society)?
- What is the policy on international travel and the accompanying costs, both in terms of allowed time and expenses?
- Will your licensing (including state medical, DEA, and other licensing requirements) costs be fully covered? (Make sure that you not only ask about these issues, but negotiate what resources you will need in order to be effective in your career.)
- Are travel expenses covered, and what is required for reimbursement of personal expenditures?
- Is funding available (try to negotiate such funding) for professional development, such as for courses that enhance skills? (Examples would include the faculty development seminars offered by APGO, or workshops and courses offered by the AAMC.)

The sabbatical is unique to academic institutions. It's generally reserved for faculty members who have been at an institution for at least seven to ten years. Wise use of a sabbatical can recharge individuals and return new knowledge and skills to the institution. To be truly beneficial, a sabbatical should be carefully planned, particularly if it is to extend more than the standard four to six months. Once your leave is approved, allow 18 to 24 months to make contacts, develop a program of study or research, and arrange living conditions. If less time goes into the planning, your sabbatical may not be well used. Sabbaticals must be approved at the level of the chair and dean. When the time comes, be ready to discuss your plans with the appropriate authorities.

Travel Allowances

As you become connected in regional and national organizations, you will be asked to serve on boards, committees, task forces, and study sections. You may also be elected to office in a national medical organization. These responsibilities take time away from your institution. Before accepting any position, discuss the time commitment and elicit the support of your division director and chair, especially with regard to travel allowances. Be certain to understand who is funding the cost of travel and other expenses related to these roles outside of your institution.

The best advice for a beginning—or any—faculty member is this: Be selective, and learn to say no. Also, be wary of committees demanding more than two or three years of service. Committees (and committee members) can become stale if terms are too lengthy.

Automobile Allowances

Unless you will spend a lot of time driving for the benefit of the institution, you probably will not qualify for an automobile allowance. Most institutions reimburse faculty members for mileage at a fixed cost per mile. You must maintain accurate travel records to claim reimbursement and deductions on personal income taxes. If travel cannot be verified, the IRS will treat the reimbursement as ordinary taxable income.

Social Memberships

The IRS does not allow tax deductions for membership initiation fees and monthly dues for social clubs, and most institutions do not subsidize these expenses. However, you can partially deduct documented business entertaining expenses. For some senior administrators, this is a necessary part of the job. If you are interviewing for a position as department chair, dean, vice president, provost, or president, then it may be important to negotiate an adequate budget for entertaining. If you are interviewing for any other position, such negotiations are probably unnecessary.

Relocation Expenses

Since relocation expenses are time-limited and non-recurring, they need not be specified in your employment contract. However, you still need to get in writing what the institution will pay—whether that is actual costs being reimbursed, a fixed sum that is provided, or a direct payment to the moving company from your employer. These one-time expenses are usually negotiated individually. With the changes in the value of real estate, particularly with the wide regional variation in home values, you should inquire whether your institution has programs that assist with mortgage financing. Many institutions have relationships with local lenders that help you qualify for home loans. Some institutions will assist with co-signing a mortgage or with covering the costs of the home from which you are moving until it is sold.

In addition to covering moving expenses, the institution may reimburse you for house-hunting expenses and temporary accommodations, especially if you are asked to start your new job at an inconvenient time or are unable to move your household immediately. Typically, these expenses include an apartment or hotel room as well as commuting expenses (airfare or automobile mileage) until your family can move.

Moving expenses may be fixed or unlimited, allowable or non-allowable. All of these terms should be defined. Nonallowable expenses may include such things as ferried automobiles, boats, pets, large animals, or farm machinery. You may laugh at the thought of potential employees making such requests, but they are not uncommon.

Other Issues

Administrative support. It is important to have high-quality support for your daily activities. On the academic side, you should know what clerical and administrative support you will have. Will you be sharing an administrative assistant and, if so, with how many others? Generally if that person is supporting more than three others, you will not receive the kind of support that you will need. The more administrative your role, the more assistance you will need (e.g., the clerkship director will have enormous paperwork responsibilities and will need at least 0.5 FTE of administrative support). Be certain to have the minimum acceptable support described in your offer. Similarly,

on your clinical practice, you should understand the support that you will receive. What support will you have to deal with phone messages and prescription refills? Will you have dedicated medical office assistants? Will you have a dedicated non-physician provider or a portion of an FTE thereof? What kind of nursing support will you have in the office?

Technology support. Technology has become a part of our daily lives, and it is important to know what is being offered and to negotiate adequate resources. In your clinical practice, what is the electronic health record (EHR) and how can you access that? Will the institution provide you with a laptop or tablet or both, and can they interface with the EHR? If you feel that a touch pad device is valuable, will the institution provide and technically support that for you? Will your learners or staff need the same device, and will the institution support that? Will other technology (both hardware and software) be available, and should you negotiate a budget for its purchase? If you do purchase software, will the institution have resources to support that software implementation and interface with other technology? These are important negotiations to have delineated in your contract/letter of offer.

Non-compete clauses. Many institutions view their hiring of you as a commitment and investment in your practice that has a monetary value. Thus, they will ask you to sign a non-compete clause in your contract. These clauses have not been well tested legally in every state, but to fight them will cost you significant time and out-of-pocket expense. Most of these clauses require that you do not practice medicine within a certain geographic radius (typically 20 to 50 miles) for a set period of time (typically two to three years) without paying a financial penalty to the institution (typically a fixed sum or approximately two to three years of total salary and benefit costs). Read these clauses carefully and, if you feel it's appropriate, have an attorney look at them so that you understand exactly what commitment you are making.

Your partner/spouse. If you have a partner, you may wish to consider negotiating for employment opportunities for him or her at the same institution. Alternatively, many institutions can provide direct or indirect assistance for your partner in finding a job locally. If you have limitations related to other family circumstances such as an elderly parent who lives with you or children with special needs or educational requirements, your employer may be able to assist in these areas, so be certain to ask and see what can be done without "negotiating" for additional assistance. These kinds of delicate issues need to be discussed prior to accepting a job opportunity, especially if your partner's career may limit your ability to accept a position or may limit the timing of your start date.

Rules to Live By

Your institution likely has a code of ethics that affects the activities and decision-making of all faculty. This code also defines professional conflicts of interest. Read—and plan to live by—your institution's code before signing any employment agreement. If you find a potential conflict of interest or an *a priori* violation of the code of ethics, immediately notify your potential employer.

Intellectual Property Policies

Most institutions have intellectual property policies regarding patents, royalties, inventions, and discoveries that bring revenue to the individual and the institution. These policies are binding as part of the employment contract. They are usually found in the contract's appendix or in an institutional handbook.

Independent Consultation

You may be asked by an outside company or organization to serve as a consultant, expert witness, speaker, panel member, contributor to a periodical, or author. Before accepting, be sure that you understand your institution's or department's policies on these activities, including how much time you'll be allowed away from your normal duties and how the income from these outside tasks will be distributed between you and the institution.

Your employer pays the lion's share of your income (not to mention your insurance and other benefits), so all of your other professional activities should be secondary to your academic position. Do not make consulting your main emphasis. If it becomes the most important and satisfying part of your career, then it's time to leave your academic position and become a full-time consultant.

Renewal, Renegotiation, and Termination of the Employment Contract

During negotiations, be sure that you fully understand the length of your contract, the terms for its renewal, and the conditions under which you or your employer can abridge, or change, the contract.

It's reasonable to negotiate a three-year contract initially. Shorter terms suggest lack of commitment; longer terms limit flexibility. After the initial contract is fulfilled, most contract renewals are made annually.

If your initial contract expires and is not renewed, but you remain in your position, then the conditions of your initial contract generally prevail until a new contract is drawn up and signed. Any substantial change in your job description, income source(s), the people you report to, or fringe benefits should be written into the new contract or added as a codicil to the existing agreement.

Your contract should be written and signed in good faith. You may need to amend the contract before it expires, however, and the conditions for making these changes should be specified in the contract. Many institutions have a policy that an annual contract is signed and provided to each physician or faculty member. Be certain to look closely at these documents for appropriate content and accuracy.

Regarding termination, the contract should state what is adequate notice time from both parties and should spell out terms regarding severance pay. There should also be a section about dispute resolution. Some of these points may be covered in a faculty or staff handbook.

Job Hunting

As part of their growth and development, faculty members need to be given the support and confidence to explore other professional opportunities. Institutions may acknowledge this implicitly or explicitly—by allowing administrative or vacation time away for interviewing, for example, or by putting your name forward to an outside institution for a new position.

Some faculty members spend their entire career in one institution, but most make two or three big moves. Before accepting any new position, try to assess the institutional and individual attitudes toward job hunting. Might it be viewed as a sign of disloyalty? If so, be discreet in your efforts.

Most institutions allow you to go for a first interview to explore what other opportunities exist. A second interview is a sign of significant interest from you and from the inviting institution. If you are asked for a second interview and want to pursue it, you should inform your department that you are seriously looking at other opportunities.

Up for Negotiation

- Academic title
- Salary
 - Base salary
 - Practice plan income
 - Deferred compensation
- Retirement benefits
- Insurance benefits
 - Health/dental
 - Life
 - Disability
 - Professional liability (malpractice)
 - Long-term care
- Administrative support
- Non-physician provider support
- Technology (hardware and software) support
- Leave and vacation time
- Continuing education benefits

- Indirect medical practice expenses
- Travel allowance
- Automobile allowance
- Social membership fees and dues
- Relocation expenses
- Start date
- First review date
- Signing bonus
- Annual bonus
- Specific perks
 - Automobile
 - Parking
 - Phone, tablet, or other electronic device
 - Laptop/remote access
 - Spouse or partner employment assistance
- Educational expenses (for you or family members)

Failure to Renew

If your institution decides not to renew your contract, you must be given adequate notice of the decision, as well as time and assistance (if necessary) to find a new position. The notification period for these not-for-cause dismissals should be specified in the contract. Financial exigency is a legitimate reason not to renew contracts, but this reason must be used sparingly.

If failure to renew is for cause, the institution does not have the same obligations. "For cause" must be carefully defined. If poor performance is alleged, your department chair or your supervisor should provide documentation. He or she also must have conveyed dissatisfaction to you in counseling sessions. A for-cause dismissal has serious implications for your career. Potential reasons for this kind of dismissal should be addressed in your contract or in the institution's faculty policy document.

Administrative positions have no tenure, and faculty members generally serve in these positions at the pleasure of their superior(s). Dismissal from an administrative position does not mean dismissal from the institution unless you have no faculty responsibilities outside of your administrative duties.

If you learn that your contract will not be renewed, do not respond with negative comments about the institution. By burning bridges, you may destroy ties that could serve you well in the future. You may also divert good will and support that are currently directed your way.

Conclusion

The agreements you make as you negotiate for your faculty position should be formalized in a written employment contract. Don't be afraid to ask numerous questions. Requesting more information will not only strengthen your negotiating position, it will also signal to your prospective employer that you are a confident professional. Your contract must benefit both you and the institution. If you leave because you are unhappy in your job—or stay but are unproductive—no one wins. A well-negotiated contract, on the other hand, is integral to your satisfaction and success at your new institution.

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CHAPTER THREE

Academic Mentors—Finding One and Being One

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In biology, propagation of the species and nurturing of the young are essential to survival. In social organizations, a similar process needs to occur if functioning units are to survive and prosper. . . . [M]entorship is an important adjunct to creating an environment that enhances the individual's chances for a successful and fulfilling academic career. [Each medical] discipline . . . should also realize that successful mentorship is important for . . . its survival in the biologic jungle we call academic medicine. (Larson 1992)

Chances are, you have already heard a lot of advice about your career and the choices you will make along the way. You have come to this book for advice and guidance. But how can you determine which advice will help you to meet your own goals and needs, in your own institution or in your own areas of interest? It can be overwhelming at the start. That is why many of us seek the advice of someone we know or trust, someone we admire or who has been through the process before. We seek an academic mentor.

Views about what a mentor is and does (or should do) vary among individuals and institutions, as well as publications. However, everyone seems to agree that having a mentor is a positive step for junior faculty to take—to increase the likelihood of academic success.

You may have already identified someone who is serving as your mentor, or you may find yourself in the role of academic mentor. If so, this chapter may help you improve your mentoring relationship. If you do not have a mentor, your institution may recognize the importance of mentoring and have a system in place to help you identify an academic mentor. You just need to get moving and get involved!

If you do not have a formal mentoring program at your institution, this chapter will offer strategies for identifying important characteristics to look for, identifying a mentor, initiating a relationship, and, equally important, knowing your responsibilities as a mentee. We will cover components of formal mentoring programs at selected schools in the United States, and selected resources for faculty development. But first, let's get to some basics about mentoring.

The Mentoring Relationship

The original Mentor was trusted tutor and advisor to Odysseus' son Telemachus in Homer's saga *The Odyssey* (Butcher 1909). Athena, goddess of Wisdom, takes the form of Mentor to serve as teacher of traditional subjects and an advisor in matters such as virtue, responsibility, and character development. Today, we use the term mentor to describe much the same: a teacher, counselor, advisor, agent, coach, or friend (Souba 2000). Despite having rhetorical strength, the term "mentor" continues to be a source of conceptual confusion, especially in practice and in scientific research.

Mentoring is a more complex relationship than that typically found between a boss and subordinate, a teacher and the student, a counselor and the counselee, preceptor and a trainee, or in a role model. While all of these are important developmental relationships, these relationships focus on primarily one developmental aspect rather than encompassing all three equally—educational, personal, and professional. Likewise, these other relationships do not provide some important functions listed in "Functions of a Mentor" on page 50. In the academic and medical literature, a specific definition of mentoring has been useful in assessing the prevalence and effectiveness of mentoring relationships (Healy 1990, Palepu 1998): A dynamic, reciprocal relationship between an advanced career incumbent (the mentor) and a junior faculty member (protégé) aimed at fostering the development of the junior person/protégé. It requires time, commitment, skills, and perhaps some personal chemistry (Jackson 2003, Sambunjak 2009).

Objectives of Purposeful Mentoring – A Holistic Model

- Educational aspect: Develop knowledge and performance skills, integrate new learning
- Personal aspect: Manage transitional states, build interpersonal skills, guide reflection and feedback
- **Professional aspect:** Develop leadership and mentoring skills, maximize professional potential and fulfillment

For mentoring to achieve these objectives equally requires active support (listening, trust, sponsorship, networking), resources (protected time, space, funds), and feedback regarding successes and failures (Souba 2000).

To achieve a relationship that is truly functional and effective mentoring, both the mentor and mentee must be highly committed and should fulfill the following specific responsibilities:

Functions of Mentor	Mentee Responsibilities—
(Schapira 1992)	Manage Up (Zerzan 2009)
 Fulfillment of needs: Fulfill educational, personal, and professional objectives of mentoring. Protection: Protect protégé's time and resources. Sponsorship and promotion of visibility: Open doors to opportunities, invite protégé to participate in or present at national workshop or courses, suggest protégé's name for professional opportunities. Role modeling: Provide an example of professional and personal life that the protégé may wish to emulate. Socialization into the profession: Encourage a sense of belonging and value within the professional setting. 	 Express needs in a direct manner. Develop overall goals with mentor and understand how success is judged. Be available and flexible with scheduling. Take responsibility for setting up meetings and adhere to the goals of each meeting. Be responsive to the mentor's suggestions and follow through on tasks. Communicate in a straightforward way, directly address issues of potential conflict, and ask when something is not clear.

Sponsorship is a particularly important function of the mentor. Your mentor can open many doors for you in your department, in your institution, and in national organizations by suggesting you as someone worthy of involvement. For example, if your mentor is director of a workshop or is on the program committee for a national meeting, he or she may ask you to present your work or ideas. Or your mentor may suggest you—as someone with valuable expertise or ideas—to serve on a committee or task force in an area of interest to you.

Once you have been invited to and involved in some of these activities and have demonstrated your value or expertise, you will gain a favorable reputation and be asked to participate on your own merits. For someone without a mentor, it may take much longer to become known to those outside of his or her immediate circle.

Concerning socialization, there are three things that all new faculty must understand in order to succeed in academic medicine. Collectively termed "professional academic skills," they include (1) adopting academic values, (2) managing an academic career, and (3) establishing and maintaining a productive network of colleagues (Bland 1990, Morzinski 1994). Mentoring is one way new faculty become socialized and master professional academic skills.

Since effective mentoring is highly dependent on a dynamic and collaborative relationship, the mentee must be an active participant to fully benefit from the relationship. Borrowing from the corporate concept, "managing up" is also applicable to the mentoring relationships in academic medicine (Zerzan 2009), whereby the mentee takes ownership, clarifies his or her values and work style, selects an appropriate mentor (or two), communicates his or her needs, and cultivates the relationship by managing the "work" of the relationship. An excellent resource that all mentees should read is by Zerzan et al. in *Academic Medicine* from 2009: "Make the most of mentors: a guide for mentees."

Mentoring can occur at any point during your professional life: when you are a medical student, resident, fellow, junior faculty member, or senior faculty member. However, it appears to be particularly important at the time of fellowship and for newly appointed faculty. Proper guidance early in your academic career can help you avoid the pitfalls common to the new kid on the block.

Fellows and new faculty tend to be enthusiastic, wanting to get involved and often taking on more than they should. They can easily become overwhelmed by clinical and teaching demands. In addition, today's reality is one of tighter fiscal demands for the academic environment, with greater emphasis on revenue-generating clinical productivity. As a result, there is inadequate time for "scholarly" activities that are required for promotion and tenure (P and T), such as investigative pursuits (research or grant writing), writing for publication, or pursuing educational products that go beyond the traditional bedside teaching or didactics.

Junior faculty may eventually become so frustrated that they consider leaving academia. If they do not leave, they may languish at the level of instructor or assistant professor, even though they have been working very hard and contributing to the department. Mentors can help guide their careers, assist them in prioritizing, and protect them from both the excessive demands of the institution as well as their own inclination to take on too much (Applegate 1990).

Benefits of Mentoring

Studies of mentoring relationships in areas outside of medicine (business, law, government, and education) have demonstrated many benefits for those with mentors, including more advanced knowledge, higher salaries, a better sense of career goals or path, and greater career satisfaction when compared to individuals who do not report having a strong mentoring relationship (Merriam 1983, Riley 1985, Roche 1979). Studies of the impact of mentoring on businesses have shown benefits to the organization, including improved employee motivation, job performance, and retention rates (Wilson 1990).

In studies published in the medical literature (Cho 2011, Sambunjak 2009, Sambunjak 2006, Amies-Oelschlager 2011), effective mentoring has been suggested to have important influence on: research productivity as measured by publications and obtaining grants; career choice and success as measured by retention, satisfaction, and promotion; and personal development. Two of the most comprehensive systematic reviews on this subject were published by Sambunjak et al. in 2006 (*JAMA*) and 2009 (*J Gen Intern Med*). Their initial review in 2006 focused on quantitative studies of mentorship outcomes, and their follow-up review in 2009 focused on qualitative studies addressing the characteristics of mentoring. While mentoring is perceived as an important part of academic medicine,

scientific evidence to support objective outcomes was not strong due to a lack of both rigorous study methods and consistent definitions/descriptions of the mentoring relationship. However, most studies of mentoring suggest that successful mentoring requires high commitment by the mentors and mentees, strong mentor interpersonal skills, and supportive academic institutions.

Common mistakes encountered by junior faculty during their career development are listed in the box below. The first item, "failure to select an appropriate mentor," is considered by many authors to be the most crucial element for ultimate success. Certainly, the majority of other pitfalls could be avoided with proper guidance and counseling from an academic mentor (Applegate 1990).

In obstetrics and gynecology, surveys of subspecialty and research fellows have demonstrated benefits of mentoring as well. For fellows in maternal-fetal medicine, those with mentors were significantly more likely to expect thesis completion, more likely to want to pursue a career in academics, and more satisfied with their fellowship program when compared to those without a mentor (Sciscione 1998). For fellows in gynecologic oncology, mentorship was associated with a higher expectation of completing a thesis before finishing a fellowship (Ramondetta 2003). For obstetrician-gynecologists who had received non-government research fellowship awards (1971–1999), mentoring was the factor identified as the greatest career enhancer (Leppert 2002).

Common Mistakes of Junior Faculty During Academic Career Development

- Failure to select an appropriate mentor
- Failure to define career goals
- Poor selection of a faculty position
- Poor negotiation of support
- Poor time management
- Inadequate understanding of requirements for promotion and tenure
- Lack of research focus or scholarly productivity

(Applegate 1990)

Informal Mentorship and Formal Mentoring Programs

Mentoring can be formal (assigned) or informal (unassigned); it can be initiated by the mentor, mentee, or institution. The way the mentoring relationship is established is far less important than the quality of the relationship. Traditionally, mentoring relationships develop naturally through an informal process where two individuals with common interests simply find each other (Morzinski 1996). When this works and works well, the results can be tremendous. However, studies of mentoring relationships in medicine indicate that one-half of

junior faculty in the United States do not have anyone they consider a mentor and are conceivably left to their own resources in navigating the academic world (Palepu 1998). In addition, junior faculty who are already highly successful may tend to attract mentors, leaving the bulk of junior faculty to find mentors. Finally, lack of adequate numbers of senior women or minority faculty may make junior faculty of these underrepresented groups feel unable to identify someone they should consider a mentor.

In the 1990s, formal mentoring programs in U.S. medical schools began to develop in response to (1) the inadequacies of informal mentoring in the newer fields of academic primary care, such as family medicine and general internal medicine (Morzinski 1994, 1996), and (2) reported benefits of these programs published by authors in fields outside of academic medicine (Chao 1992). In 1998, the Office of Women's Health within the U.S. Department of Health and Human Services created four National Centers of Leadership in Academic Medicine (NCLAMs) to help both male and female faculty members obtain mentors and thereby facilitate career advancement (Mark 2001). These programs were established as the result of the Office of Women's Health National Task Force on Mentoring for Health Professionals, which determined that two principles are paramount to the success of any mentoring relationship or program: institutional commitment, and institutional rewards and recognition to mentors. (Rewards programs for teachers and mentors are discussed in more detail in chapter 9, "Rewarding Excellence: Systems for Motivating and Recognizing Medical Faculty Achievements.")

A comprehensive review of formal mentoring programs in academic medicine is beyond the scope of this chapter. However, since these programs model a wide variety of ways to implement formal mentoring in different academic settings, they may be useful tools for your department or institution. The design of these programs ranges from the more traditional dyad of one-on-one pairing of senior and junior faculty, to two-tiered programs of preceptorships complemented by dyad mentoring, to collaborative peer-group mentoring programs to assigned "College Mentor" for all medical students at the time of matriculation (see the "Suggested Reading" at the end of this chapter). Common to all of them are strong institutional support for faculty development and a high level of mentor commitment.

Themes similar to each of the published formal mentoring programs in academic medicine are listed on page 54. Short-term outcome measures of these formal mentoring programs reveal high participant satisfaction, improved skills (such as grant and manuscript writing), greater knowledge of the P and T process, more defined career goals, and trends toward better faculty retention. Longer-term outcomes should be forthcoming, as most of these programs are in their first decade of existence.

Since 1990, the Association of American Medical Colleges (AAMC) has held regular professional conferences with the goal of providing medical school administrators with the tools to organize faculty development and faculty affairs. In 2000, a survey of the 125 allopathic medical schools in the United States was administered to determine the current prevalence and functions of offices of faculty affairs and faculty development (Morahan 2002). Seventy-six schools (61 percent) responded. Within these schools, 117 offices were identified as handling faculty affairs and faculty development functions, but only 20 percent of these offices were devoted to faculty development. Several of the schools had decentralized the responsibility for faculty development to the level of the department.

In industries outside of medicine, recruitment and professional development, including mentoring and attention to work and life issues, are priorities for maintaining a talented work force. Academic medicine clearly has a way to go in this arena. Medical schools and departments need to invest resources for the development of mentors and mentoring relationships in order to keep talented faculty in academic medicine.

Common Themes of Formal Mentoring Programs in the United States Established institutional or departmental support for faculty development Needs assessment of institution and faculty prior to implementation of program Established mission and goals of program specific for the institutional setting Participation voluntary for both junior and senior faculty Rewards system for mentors

• Tools to measure program outcomes and mentor effectiveness

Finding Your Mentor and Developing Your Mentoring Relationship

Now that it's clear what a mentor can do for your career, you can begin the search to identify your own mentor. For most of you, you'll need to take responsibility for this important part of your professional development.

Even in the setting of a formal mentoring program, you must take the initiative and commit the time to get involved. Remember that the definition of mentoring includes the phrase "a dynamic, reciprocal relationship" (Healy 1990). This means that once you identify a mentor, you must also commit time and energy to develop and continue the relationship. The effort will be well worth it.

For some of you, the department chair or your division director may serve as a mentor. Since your professional success is ultimately in the best interests of your department or division, most of these leaders will have a strong interest in your professional development. However, one potential drawback is that such leaders may have difficulty separating their fiscal responsibility to the organization from their role as your advocate.

Even if your chair or division director does not act directly as your mentor, he or she should regularly monitor your mentoring relationship(s) as part of your yearly (or more frequent) progress meetings. Your department and division leaders should have a vested interest in whether your mentoring relationship is working for you. If it is not, then they can facilitate your finding a new mentor or adding a mentor to fill a need not met by your current

mentor. Your chair or division director may also want to review your career goals established through your mentoring relationship and be sure that these mesh with the missions of the department and institution.

In published interviews of junior faculty identified as having successful mentoring relationships, there were various responses to the question "How do mentors and protégés find one another?" (Jackson 2003). As mentioned previously, the junior person must expect to do the work of finding a suitable mentor—early in your academic career. You should search for a mentor in multiple places, both inside and outside of your institution. It is true that geographic proximity facilitates a sustained mentoring relationship. However, with the almost universal use of electronic communication, proximity may be less of an issue in today's academic environment.

One suggestion for identifying a mentor is to set up brief meetings with everyone in your department to see who may be a natural mentor for you. If you do not find anyone, go beyond your department and even beyond your institution (Jackson 2003). Organizations such as APGO and programs such as the APGO Academic Scholars and Leaders Program are excellent sources for mentors in education and beyond. Additional suggestions for finding a mentor are found in chapter 10, "Putting It All Together: Personal Strategies for Advancing Your Career."

Characteristics of effective mentors are listed in the box below. These were identified from several sources: a survey of senior faculty in the United States who had served as mentors and were felt by the faculty to have been effective mentors (Palepu 1998); nominees for the University of California–San Francisco's Lifetime Achievement in Mentorship Award (Cho 2011); and a systemic review of 8,487 citations (Sambunjak 2009). Use this list when searching for a mentor to help you decide whether an individual may be able to serve you well. Persistence may be necessary to find the right mentor.

Characteristics of Effective Mentors (Palepu 1998, Cho 2011, Sambunjak 2009)

- **Personal:** altruistic/compassionate, understanding, patient, honest, responsive, trustworthy, nonjudgmental, reliable, active listener, enthusiastic, insightful, selfless, wise, motivator
- **Relational:** commitment to and interest in the career of others, accessible, sincerely dedicated, able to identify potential strengths, able to assist mentees in defining and reaching goals, holds high standards for mentee, compatible in terms of practice style and personality
- **Professional:** senior, knowledgeable, experienced, contacts and networking abilities, resources at his or her disposal, collaborative

Like any relationship, the mentoring relationship requires work from both parties to sustain it. It also tends to flourish when both the mentor and the protégé share similar interests and ideals (Jackson 2003). In most situations where there is a successful match, the mentoring relationship will grow and develop over the years, similar to a close friendship. You will come to respect each other and anticipate each other's needs and expectations. You will learn from mistakes through reflection and feedback facilitated by your mentor. Accept advice as nonjudgmental; you know that your mentor means the best for you. Both of you will gain satisfaction from your successes.

In many situations, you may not meet all of your mentoring needs in one relationship. It is acceptable to have multiple mentors. However, sorting through the sometimes conflicting advice may become frustrating. If a mentoring relationship is not working for you, talk with your mentor and see if you can make any changes that will improve the relationship. If you continue to feel that you are getting inadequate support or guidance, then you need to move on and identify a new mentor. This may seem difficult, but in a professional relationship such as this, there should not be any serious repercussions.

Finally, there may be special challenges with differences in gender and race in the mentoring relationship. As more women and minorities advance to the level of professor, there will be more diversity in the choices available for your mentor. Fortunately, gender and race appear to be less important than one might expect for a successful mentoring relationship. In fact, of more than 1,000 junior faculty surveyed in 1995, the majority of women (80 percent) and minorities (86 percent) reported that it was not important to them to have a mentor of the same gender or race (Palepu 1998).

If you're not aware of a mentoring program at your institution, ask other junior faculty, your division director, or your chair if such a program exists. Mentoring typically falls under the umbrella of "faculty development." You may want to search your school's Web site for "mentor" or "faculty development" to identify programs available to you.

Resources that will provide some of the information you would expect to gain through a mentoring relationship are available through APGO and the AAMC. Meetings, Web-based resources, and publications such as this book are available and can be a good start on your journey to academic success.

Helpful Web Sites

Following is a list of Web sites with information about faculty development and formal mentoring programs.

Association of American Medical Colleges (AAMC)

Group on Faculty Affairs (GFA) and Group on Women in Medicine and Science (GWIMS) www.aamc.org

Association of Professors of Gynecology and Obstetrics (APGO)

APGO Academic Scholars and Leaders Program www.apgo.org

Harvard Macy Institute

Professional Development Programs for Academic Leaders www.harvardmacy.org

Harvard Medical School

The Academy Center for Teaching and Learning www.hms.harvard.edu/Academy/ctl/ctl.html

Medical College of Wisconsin

Faculty Development and Resources: Mentor Program www.mcw.edu Type "Mentor Program" in the search window.

Stanford University School of Medicine Faculty Mentoring Program **facultymentoring.stanford.edu**

University of Medicine and Dentistry of New Jersey Center for Teaching Excellence: Career Development cte.umdnj.edu

Guidelines for a Successful Mentoring Relationship

Once you identify a mentor or mentors, you can begin to develop the relationship and reap the benefits. The following guidelines are intended to help you both develop and sustain a successful mentoring relationship. They are based on published formal mentoring programs, our personal experience, and the collected experiences of others.

Work on developing your career goals early in the relationship. These should include short-term (one- and threeyear) as well as long-term (ten-year or more) career goals. Write down your goals and review them with your mentor. Review them yourself on a regular basis and revise them if necessary. *Remember to include a strategic plan for P and T in your career goals.* Discuss your institution's requirements for P and T and confirm that you are on the appropriate track for your goals and interests.

Adopt the "manage up" concept. Take ownership of the relationship by communicating your needs and goals, plan and set the meeting agenda, complete assigned tasks, and be responsive to feedback.

Have regular meetings with your mentor. These should be scheduled at least once a month if geographically possible. If not, schedule time to meet when you see each other at meetings.

Review your progress at each meeting. Have specific goals for each meeting and schedule additional meetings if needed to accomplish these goals.

Communicate regularly beyond formal meetings. Phone conversations and e-mail correspondence will complement these meetings and help you follow up on important issues.

Ask about ways that your mentor may sponsor you in your department, institution, or nationally. How can he or she help you raise your visibility?

Ask for regular feedback if you are not getting it already. Reflect on the feedback and discuss things you have learned from your experiences with your mentor.

If you select an appropriate mentor and follow these guidelines, your mentoring relationship should flourish. We cannot emphasize enough the need to define your specific goals (both career goals and goals for each meeting), as well as to have regular communication with your mentor.

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CHAPTER FOUR

Measuring Your Performance

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Candid self-assessments are essential to your successful development as a faculty member. Equally important are periodic evaluations and performance reviews by your division director and chair. This chapter discusses both ways of measuring your performance.

Self-Assessment

To some extent, we're always engaged in informal self-assessment. However, it's not enough to rely on occasional fleeting thoughts about how your career is progressing. You need to devote time to regular, in-depth, formal self-assessments. For efficiency, schedule your self-assessment when it serves a dual purpose—when you update or redo your curriculum vitae, for example, or prepare for an annual review.

This book contains several tools that will help you through this process:

- "Faculty Diary of Academic Accomplishments" (see pages 23–25 in chapter 1)
- "Annual Review: Faculty Self-Evaluation" (see page 72 in this chapter)
- "Keep a Personal Role Analysis" (see page 73 in this chapter)
- "Sample Curriculum Vitae" (see pages 117–119 in chapter 7)
- "Sample Teaching Portfolio" (see pages 120–122 in chapter 7)

Because self-assessment will help you build your career, approach it positively—and proactively. Don't wait until you're frustrated or unhappy with your professional life to perform this important task.

As you take stock of yourself, ask probing questions. Do you feel productive? Do you enjoy your work? Even though some activities are more stimulating than others, would you say that, overall, you like what you do? Which of your responsibilities do you enjoy the most? Why? What is rewarding about each?

Do not overlook those tasks you do not enjoy. Instead, give them equal time. What about them seems like a burden? Is there anything you can do about that? Let's say, for example, that seeing patients is less fulfilling for

you. You analyze the situation and realize that you dislike being in clinic because of many system inefficiencies. These result in patient dissatisfaction, which is transferred to you. Therefore, the problem is the system itself, not the act of seeing patients. Once you understand that, you may be able to address the inefficiencies and make your clinic responsibilities more enjoyable.

Maintaining an analysis of the major roles you fulfill in your department provides helpful information to you, your peers, and especially your superiors in "taking stock" of your efforts. (See template on page 72.)

Answering one question will be especially telling: What changes have you made recently to your curriculum vitae? If you have not enhanced your CV in the last six months, ask yourself why. Lack of growth is a sign that change is needed. Keep this in mind when evaluating opportunities to serve on committees and task forces, or when you're asked to take on additional responsibilities.

Developing a Personal Mission Statement

A personal mission statement articulates your vision of what you want to accomplish with your career, and it can help you measure your performance. One way to start developing a personal mission statement is by completing this sentence: "At the end of my career, I hope to be remembered as a person who (1) ______, (2) ______, and (3) ______."

Reflect on your responses over time. Your words need not be eloquent, and your statement need not be lengthy. Simply put on paper the core of what you hope to achieve over time.



Managing Your Time

We all have the same number of hours in a day, but we differ in how we use them. How do you spend your time, and what do you accomplish with the hours available to you? Although much has been written and said about time management, its importance cannot be overemphasized.

Time management forces you to prioritize (see below, "Tips for Prioritizing"). At first, this may make you uncomfortable, or it may even seem like a waste of time. Stick with it and you'll come to appreciate its value. If you are having difficulty accomplishing your priorities, look at where you are spending your time. For example, e-mail can be one of the most insidious consumers of time. If you become distracted from your priorities by reading and responding immediately to e-mail throughout the day, consider setting aside certain times of the day to check/respond to e-mail. Otherwise, keep your e-mail turned off. Alternatively, plan to complete certain tasks before viewing your e-mail each day.

There are many good time-management books, courses, and other resources that can help you analyze how you use—or misuse—your time. Several books are listed in "Suggested Reading" on page 71. Everyone has his or her own style of managing time. Yours will evolve the more you learn about and practice these skills.

Tips for Prioritizing

- Keep one main list of everything you need to do—professional and personal. Maintaining and prioritizing two or more lists takes extra time.
- Once you've made your initial list, do as many of the little things as you can. This will immediately shorten your list and make you feel as if you've accomplished a lot. It will also clear the way for you to focus on bigger, more in-depth projects and tasks.
- Keep your main goals in mind. If your priorities aren't helping you meet your goals, you need either new priorities . . . or new goals. As someone has said, "the main thing is to keep the main thing the main thing."
- Quickly review your list at the start of each day, but try to prioritize just once a week—on Monday or Friday. Prioritizing can be an act of procrastination if you spend too much time doing it.
- Think about how your priorities will affect others. Maybe something isn't important to you but is very important to someone else.
- Think about what will happen if you don't accomplish something you need to do. What are the possible consequences? You may want to note the consequences on your list. Which ones can you live with? Which ones can't you live with?
- If something never gets done or always falls to the bottom of your list, take it off your list. Say no to things you don't need to do and don't want to do.

Setting Goals

Setting goals and reviewing them regularly is an important part of the self-assessment process. People often avoid setting goals for fear that they'll never accomplish them. Or they resist because they're too frustrated over the distance between where they are and where they "should be." Goal setting is always worthwhile, even if you may not be in a position to pursue all of your goals at a particular point in time.

Do you feel that you get adequate credit and recognition for your time-consuming efforts? For example, if you spend many hours each month serving as clerkship director, do your superiors understand and appreciate this?

Your career as a faculty member may move along two tracks. One track has your goals, and the other has the goals of your department and/or institution. Ask yourself, "Are these tracks taking me where I want to go?"

Sometimes, as was discussed in chapter 1, "Advancing in Academics: A 4-D Approach," it may be necessary to take detours on your career path. All the more reason to have goals: They help you get back on track and keep your long-term objectives—professional and personal—clearly in view.

There are several categories of professional goals, including research, teaching, clinical care, and membership in professional organizations. Examples of specific goals within these categories are listed on page 66.

When developing goals, be as specific as possible, and include ways to evaluate your goals after a period of time. For example, if you wish to improve your teaching skills, work with other faculty members or administrators who are gifted teachers. Ask them to evaluate your progress with specific teaching skills at the end of three months. Solicit their feedback regularly. You might measure clinical goals in terms of new skills mastered, patient volume increases, or new referral patterns. Research goals can be measured by the amount of grant support obtained; the number of abstracts, presentations, and publications that resulted; and the clinical application of research findings.

Professional and personal goals are intertwined. It may be difficult to accomplish your professional goals if you do not take into account your personal goals. People who devote more of their time and effort to reaching professional goals usually advance their careers more rapidly and are compensated more generously than people whose efforts are balanced between professional and personal activities. However, satisfaction with both is very important. Therefore, make sure to include personal goals in your self-evaluation. You may want to discuss these with coworkers or supervisors.

Goal setting and self-scrutiny require honesty and a commitment to continuous growth. Show your commitment by including in your self-assessment any goals, desires, or plans that maximize your strengths and minimize your weaknesses. Since we seldom see ourselves as others do, it may help to share your assessment with those close to you whom you respect.

Examples of Personal and Professional Goals

CLINICAL OBJECTIVES

- · Knowledge and skills in an advanced practice area
- New (or reorganized) clinical service
- Outcome goals in a key practice area
- Collaborative practice arrangements
- Special health initiatives (e.g., smoking cessation, mammography)
- Links with community services (home visitation, transportation assistance, WIC [Special Supplemental Nutrition Program for Women, Infants, and Children], and substance-abuse counseling and treatment)

RESEARCH GOALS

- Training in a new laboratory technique
- Skills in quantitative and statistical analysis
- Extramural funding for a research project
- Development of a new research proposal

TEACHING GOALS

- · Grand rounds presentation on subjects of interest
- Development of department teaching award
- New or improved skills (e.g., lecturing, small-group facilitation)
- · Instructional handouts, syllabi, slides
- Experimentation with innovative techniques (e.g., problem-based learning, objective structured clinical examination)

RECOGNITION AND ADVANCEMENT

- Presentation at national or regional meetings
- Publication of abstract, book chapter, book, or article
- Office or committee role in professional organization
- Promotion
- Tenure

Reaching Common Ground

Goal setting has positive consequences for you as well as the institution. When you set professional goals, they tend to become divisional, departmental, and institutional goals. The efforts of one faculty member can raise the bar for all.

Merging your goals with those of your institution occurs during your formal evaluation. Entering the evaluation with your goals clearly in mind will assist you in negotiations. The institution will appreciate your vision and will be more receptive to integrating your goals with theirs. This will push you farther along on your career path.

Therefore, be open about your goals. Express them in a positive light. Work with your division directors, chairs, and deans to find common ground with the departmental and institutional goals. This collaborative approach to goal setting is described in the next section.

Evaluation and Performance Review

Formal evaluations are essential for both individuals and institutions. Without them, faculty members do not clearly know what is expected of them, and institutions cannot accomplish their objectives. The cost may be wasted talent, institutional stagnation, and loss of morale. Therefore, it is vital for an institution to periodically evaluate its faculty and staff, and to set goals that are mutually beneficial.

This process begins when you are hired. At that time, you and your director and/or chair should agree on objectives pertaining to your position (see chapter 2, "Negotiating the Terms of Your Employment"). Presumably, you have already set your own personal and professional goals. Now, through negotiations, you want to integrate your goals as best you can with the requirements of your new position. You should also agree on outcome measurements and on a specified evaluation period. At the end of that time, you and your superiors should assess your mutual progress toward accomplishing the goals.

Faculty members often overestimate what they can achieve and/or underestimate how long it will take to accomplish specific goals. Therefore, set your goals over an extended time, such as three to five years. Also set intermediate goals that can be measured at your annual evaluation or periodic review. Having and reaching intermediate goals will give you a sense of achievement. By the way, goals that don't present a challenge don't lead to a sense of achievement.

It is important that each faculty fully realizes that the administration of a division or department is very complicated and, especially these days, very challenging. Financial issues have never before been in the forefront as they are now. Department administrators have many pressures on them, and it may not be possible for them to provide the extent of support they might like to provide. More and more faculty must generate sufficient income, usually from patient care, to sustain their salaries. It is not the responsibility of department chairs to make or keep everyone content. Using available resources, all members of a department or group must work together to succeed.

In preparing for your evaluation, a simple calculation can be informative and beneficial. Take your salary and multiply it by 1.3. That factors in your average benefits. Divide that total by 45, which is the number of weeks in a year after deducting for vacations, holidays, meetings, and other absences. What you have now is your total cost per working week.

Let's presume that one's salary is \$100K per year; with benefits the total is \$130K. Divided by 45, the average weekly cost while working is close to \$3,000 per week. If one has 20 percent "research" or "free" time per week, that cost is \$600 per week, or \$30K per year. The department must expect tangible dividends for this cost. As you prepare for your evaluation, give serious thought as to how such time is justifiable and beneficial.

More Pointers for Your Performance Review

- *Prepare a list of questions and concerns ahead of time.* Send it to your superior several days before your review, along with an updated CV, your self-evaluation, and your goals for the coming year.
- *Be realistic about your performance.* Are you prepared to accept constructive criticism and adopt a plan for improvement? How will you respond if you receive a marginal evaluation? This can be uncomfortable, but it is preferable to being overrated and later confronted with a negative evaluation or dismissal.
- Take notes. Follow up promptly on specific issues raised and requests made.
- *Say thank you!* Soon after the review, send a personal note of thanks to your superior for his or her attention and advice.
- *Focus on the future.* Review your professional and personal goals daily. Write them in your diary or planning book. This keeps them fresh, relevant, and in focus.

Seeking Frequent Feedback

The gold standard in performance reviews is the annual evaluation. Especially for new faculty members, this is not often enough. You need feedback on your development and progress at more frequent intervals, perhaps every three months during the early part of your career.

Department leaders and top administrators tend to avoid providing regular feedback, whether negative or positive. Giving negative feedback is difficult and uncomfortable; in fact, this is one of the hardest parts of their job. Giving positive feedback seems unnecessary. They assume—wrongly—that successful individuals do not need feedback.

Feedback should always be constructive. An excellent way to frame constructive criticism is to answer the following question: "If I were to do this activity (grand rounds presentation, research project, lecture) again, how could I improve?" Ask yourself this question, and then ask others whose opinions you respect. This allows for suggestions to be offered in a non-critical manner.

If your superior has difficulty conducting evaluations, and many do, emphasize how helpful his or her feedback sessions are. Constructive criticism benefits you and the institution. By asking for informal and frequent feedback, you will help your superior become better at the task.

Scheduling the Formal Evaluation

The frequency of performance reviews varies. It's reasonable to expect twice-yearly evaluations with your division director and yearly ones with your chair. However, some faculty members need evaluations more frequently. Discuss the frequency of your reviews with your supervisors.

Ideally, annual reviews for all faculty members should occur at the same time each year, with interval evaluations on an ad hoc basis. When everyone is evaluated during the same time period, it's easier to focus on departmental and institutional goals.

It is best if reviews can be integrated with the annual strategic planning and budgeting cycles. Merit raises and bonuses (if any) can be based on accomplishments of the preceding year.

Your superior should inform you about the need for the review and schedule it as part of his or her job. If that doesn't happen, approach your supervisor and put the review on the calendar.

If you have any control over the site and tone of the meeting, consider getting away from the medical center and perhaps having lunch at a quiet restaurant. Wherever you meet, the agenda should only be about you and your career. Do not permit your review to be folded into an administrative meeting or discussion of other activities. If that happens, be patient but suggest rescheduling the review, if necessary, so your career receives full attention.

It's reasonable to have performance reviews twice yearly with your division director and yearly with your department chair. The agenda should contain a single item: you and your career.

Making Your Evaluation Meaningful

In this formal review, you will hear your superior's evaluation of your performance. You should also be prepared to discuss goals and evaluate your own performance. Self-assessment and goal setting should precede your review. In fact, it's ideal to provide a copy of your written evaluation and goals to your supervisor several days in advance, along with any questions or topics you would like addressed. This will help to facilitate the discussion at the review.

At the outset of the review, set your sights on the outcomes you wish to achieve. A role analysis may be helpful as a starting point for this discussion (see the template on page 73). This could also serve as your ongoing personal professional inventory (see pages 150–151 in chapter 10, "Putting It All Together: Personal Strategies for Advancing Your Career").

Most important, you want your superior to understand and appreciate your current activities. You want to obtain his or her support for changing your activities in ways that might enhance your career development and also benefit the division or department.

For example, if you would like to assume administrative responsibility, let that desire be known. An effective leader will help you prepare for that role. Also, you should ask about timeframes and levels of achievement

required for advancement. Assess your progress toward achieving long-term career goals, and get feedback on when you can expect to be promoted and given greater responsibility.

During the review, your superior should outline the departmental and institutional goals. Take time to discuss mutual goals and your role in accomplishing them. This type of interaction leads to teamwork and advancement. If departmental and institutional goals are left out of the performance review, the result may be misunderstandings and individual efforts that are competitive and counterproductive to the department.

Set professional goals that are both specific and realistic. For example, rather than "devote more time to research," make your goal to "submit two manuscripts as first author to national journals." Instead of "see more patients," substitute "increase by 10 percent the number of patients seen per month." Having clearly defined expectations serves everyone well.

At the conclusion of the review, you and your superior should complete an evaluation form. This form should specify your accomplishments and shortcomings of the previous year and define goals for the coming evaluation period. The review should be summarized in writing and signed by you and your supervisor.

Prior to your annual review, analyze your goals and reflect on how they will help you meet your family's future financial needs. Linking professional goals to personal financial objectives is an excellent way to inject realism into your review. This will also help you to be firm about income expectations, retirement benefits, and investment returns.

Conclusion

Self-assessment and periodic formal evaluation are ongoing parts of a successful academic career. Without them, careers tend to stagnate. Make use of them early in your academic career and utilize them regularly.

Remember that successful reviews are preceded by self-assessment and goal setting. View your performance evaluations as opportunities for professional growth and enrichment, not as stressful or negative interactions. The most successful evaluations lead to merging your goals with those of your institution.

Suggested Reading

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Annual Review: Faculty Self-Evaluation*

For the Academic Year

TEACHING

- 1. Describe duties involved with medical student teaching, including courses taught, lectures given, preceptorships, and counseling activities.
- 2. List departmental grand rounds and other departmental presentations.
- 3. Describe other teaching activities, including those directed to residents, fellows, graduate students, and postdoctoral students.
- 4. List ongoing or recently completed projects such as development of curricular programs or Web-based resources, workshops conducted, and other scholarly activities (remember to include educational research and publications here or in the section below).
- 5. Critically evaluate your teaching skills and indicate how they can be improved.

RESEARCH

- 1. List ongoing projects or publications and their status.
- 2. List anticipated projects or publications (include timetables).
- 3. List current grant funding (sources and amounts).
- 4. List grant applications submitted (sources and requested amounts).
- 5. Critically evaluate your research experience and grant support, and indicate areas in which you require help.

PATIENT CARE

Include a percentage estimate of effort devoted to each:

- 1. List assignments and activities directed to non-private patients.
- 2. List activities directed to private patients.
- 3. Critically evaluate your clinical skills and indicate how you would like to augment or improve them.

GENERAL

Consider these questions as part of your self-evaluation:

- 1. Do I feel productive?
- 2. Do I enjoy my work?
- 3. Even though some activities are more enjoyable than others, would I say that, overall, I like what I do?
- 4. Which of my responsibilities do I enjoy the most? Why? What is rewarding about each?
- 5. Which tasks don't I enjoy?
- 6. What about them seems like a burden?
- 7. Is there anything I can do about that?
- 8. What changes have I made recently to my curriculum vitae?
- 9. If I haven't enhanced my CV in the last six months, why haven't I done so?

* Adapted courtesy of the Department of Obstetrics and Gynecology, Dartmouth Medical School
| Keep a Personal Role Analysis | | | | | |
|----------------------------------|-----------------|-----------|----------|-----------------------------|-------|
| | Patient
Care | Education | Research | Service /
Administration | Total |
| Key Activities | | | | | |
| Hours / Week | | | | | |
| Strengths | | | | | |
| Developmental
Needs | | | | | |
| RELATIVE
IMPORTANCE
(1–10) | | | | | |
| - Department | | | | | |
| - Division | | | | | |
| - Self | | | | | |
| Level of
Satisfaction | | | | | |

C H A P T E R F I V E

Research and Grant Writing

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As part of an academic career, research provides exciting challenges, intellectual stimulation, and an opportunity to advance knowledge. Research takes time, energy, and passion yet it has considerable benefits for you as well as your patients, institution, and specialty. Many physicians embarking on an academic career require some postgraduate training in research methods and statistics to acquire technical expertise in the scientific method. Furthermore, specific seminars, targeted courses, focused mentorship, and collaborations may be helpful to keep abreast of emerging technology and timely research topics in each specialty.

This chapter explores different facets of a successful research career including:

- Formulating a study question
- Selecting a study design
- Finding a research mentor
- Obtaining funding and support
- Obtaining institutional review board (IRB) approval
- Collecting and interpreting data
- Preparing and submitting a manuscript

Meeting regularly with your department and/or research chair to discuss your research may be helpful in planning academic advancement even if you have another research mentor. The following ideas can serve as a guide as you implement input from mentors and departmental leaders.

Formulating a Study Question

There will be times when ideas flow freely—perhaps during grand rounds, after a great discussion with a colleague, while reading a manuscript, or after a challenging case in the operating room. Take advantage of these creative moments by noting ideas, though not all will be pursued.

Clinical experience is a rich source of inspiration for research. Many practitioners are struck by the "lack of evidence" guiding many clinical decisions. When you find yourself searching the literature for the right treatment protocol or drug therapy, consider how it could be addressed in a scientific way.

Once you have identified a study question, research the current literature, discuss your topic with knowledgeable colleagues, and consider how a study can fill existing knowledge gaps. Make use of resources such as online or print research guides, as well as research design courses offered by professional societies and universities. These resources—along with your mentors and peers—will help you turn your ideas into answerable study questions and determine the appropriate study design. A clear study question will also help your research team stay focused on the study's goals.

Selecting a Study Design

As noted previously, research design courses offered by universities, professional organizations, and foundations can be starting points for young investigators, or refreshers for more senior investigators. These courses can clarify the limitations of various study designs and explore research questions from different study method perspectives. The professional interactions at such meetings may also lead to collaborative relationships with presenters, course leaders, or other participants.

Developing expertise in research methods involves more than a mere basic understanding of statistical tests. It's helpful to have working knowledge of statistical software, such as SAS, SPSS, or Stata, when developing relationships with a data manager and a statistician. You can communicate more effectively with them when you understand the complexity of statistical testing and the limitations of your data.

Furthermore, the role of the researcher includes sharing knowledge: helping students, residents, and other faculty understand, interpret, and critically evaluate the literature. Your credibility will be enhanced when you are known as the go-to person for information about the literature in your area of study. Serving in this role will also enhance your confidence in your research skills.

Helpful Web Sites

National Institutes of Health http://grants.nih.gov/grants/oer.htm Searchable site for grant opportunities

http://grants.nih.gov/grants/grant_basics.htm Describes the process of grant application

National Cancer Institute Clinical Trials Education Series

www.cancer.gov/clinicaltrials/education/clinical-trials-education-series This series has different modules designed health professionals, potential participants, and the general public.

ClinicalTrials.gov

www.clinicaltrials.gov

This is a registry and results database of federally and privately supported clinical trials conducted in the United States and around the world. It provides information about a trial's purpose, who may participate, locations, and phone numbers for more details.

Finding a Research Mentor

Research mentors can be either peers or senior researchers with curriculum vitae (CVs) too heavy to carry. Your primary research mentor should have research experience and should:

- Provide a supportive environment for research and scholarship
- Exhibit leadership skills and professionalism
- Have been a successful mentor
- Support each mentee's personal and professional development
- Help mentees prepare presentations and manuscripts, and submit grant applications
- Act as an advocate and guide in administrative, organizational, and professional matters
- Commit to being your mentor

Networking will help you establish relationships with potential mentors. Your primary mentor may not necessarily be your division or your department chair. A mentor may be someone from outside your department who can advocate and advise, but who is not directly responsible for your promotion.

As your role and your position changes over time, you should seek out new mentors for research guidance. You may outgrow a mentor relationship as you progress in your career, but most likely you will come to value your relationships with your mentors even more as you advance professionally. Don't be surprised if the time comes when a mentor asks for your advice and counsel. For an in-depth discussion of mentors and the mentoring relationship, see chapter 3, "Academic Mentors—Finding One and Being One."

Obtaining Funding and Support

Ideally, protected research time and financial support should be negotiated before you accept a faculty position (see chapter 2, "Negotiating the Terms of Your Employment"). Clarify departmental expectations of faculty regarding research. Find out how much time you'll be expected to devote to research, clinical activities, teaching, and other academic and administrative duties.

If the department has stated its commitment to support your research career, ask about the following:

- Availability of courses to enhance skills
- Seed money for initiating projects
- Research assistant time
- Administrative assistant time
- Study coordinator time
- Statistician and data manager time
- Costs for developing posters, abstracts, and presentation at national meetings

Many of these things can be part of a startup package. However, do not assume that your department will automatically make them available to you. Clarify whether you are the only researcher in the department or are joining an established team of researchers. If you are on your own, you'll need support from other departments to get started, and you should ask for this during initial negotiations. If you are joining an established group of researchers, seek guidance and mentorship there.

Ask your mentor(s) to help you evaluate your research needs and guide you through the negotiating process. In addition, ask for help navigating the new academic system. You should also expect the leadership in your department to guide you through the process of career development.

Be aware of opportunities to enhance your professional development as well as your research career. Most academic institutions will have professional faculty development activities. Consider attending programs offered through other institutions or various professional societies. Topics specific to researchers include:

- Research design
- Methodology courses
- Statistical techniques
- Grant writing
- Manuscript writing
- Project management and evaluation

Online Resources

The National Institutes of Health (NIH) Web site is a gateway to information about available federal grants, training awards, sample successful grants, grant writing guides, instructions for submitting an NIH grant, content areas, and much more. In addition, many foundations have information about grant writing. For example, the Robert Wood Johnson Foundation (www.rwjf.org) offers helpful information for developing research ideas in general. Foundations often target specific medical conditions or focus areas. Regularly checking foundations' Web sites can be useful, since many foundations accept requests for applications (RFAs) for large grants, seed grants, and career development awards at specific times of the year.

The Web sites of many universities—and perhaps your own academic center—offer excellent information for researchers. Additional grant opportunities may be found on various industry sponsor sites. If your research focus aligns with the sponsor's priority areas, you may be able to submit an investigator-initiated proposal.

Grant Writing Resources on the Web

The National Institutes of Health Office of Extramural Research Web site (http://grants.nih.gov/grants/grant_ tips.htm) provides a wealth of information on grant writing. The information is kept current and is relevant to federal as well as local and foundation funding. Examples of what is available:

- All About Grants
- Choosing an Appropriate NIH Funding Instrument and Funding Mechanism
- Peer Review Guidelines and Information
- Tips for New NIH Grant Applicants
- Writing a Grant

Grant Writing

Grant writing generates the financial resources to conduct research. Funding, in turn, provides evidence of successful research efforts. Understanding your department's expectations regarding grant awards is critical.

- Will you be expected to obtain external funding for your research?
- What proportion of your time will be supported by grant funding?
- Will your department (1) expect all of your research time to be funded by "soft money" research grants or contracts—or (2) guarantee some "hard money" support (funding from the department's own budget) for a percentage of your research time?

If you're expected to cover your research time with grant funding, you should know how long you have to achieve that level of funding. You should also discuss the possibility of increasing your research time if you have the opportunity to grow your funding through grants. For example, if you're written into others' federal grants for 40 percent support, and you submit your own federal grant for 30 percent effort, you should ask your departmental leadership if you would receive 70 percent research time.

Be sure to consider departmental commitment when writing or planning for an NIH career development award, which usually requires 75 percent effort. Thoughtful discussions about grant writing and career development should be ongoing with your mentors and departmental leadership.

At an early stage in your research career, seeking out seed grant funding can be very helpful. Often, \$10,000 to \$50,000 is enough to complete a project or establish a research protocol while writing for a larger grant. Seed grant opportunities may be available through your department, your university, or foundations at the state or

national level. Ask colleagues in your department and around the country about potential opportunities. Seed grant applications are often shorter than full NIH grant applications and can provide a helpful structure for outlining your research proposal. The process of writing down your ideas for a seed grant proposal may help you flesh out the details of the project, pull together a team, and complete the IRB submission (the following section offers more information about IRB submission).

Some universities have built-in systems for grant searching. Contact your institution's department of research administration to find out what resources are available. Some universities enable researchers to search by topic to find potential funding agencies aligned with a specific research area. You can also search **www.grants.gov** for federal research funding. It's advisable to contact a program officer prior to submitting a grant to elicit feedback on the direction and scope of your project. This contact can often help you focus the grant application and note questions that may be brought up by reviewers during the grant review process.

Once a grant is submitted, it usually takes several months to receive feedback. A foundation may send you a letter stating that the grant either will or won't be funded without offering further comments or critique. Feel free to call the foundation's research office to seek information about the grant, using the information as a way to assess potential future opportunities. However, a detailed breakdown and discussion of your proposal review is generally not available.

For an NIH proposal, a minimum critique from two members of the review panel (primary reviewers) is received. If your proposal is above the 50th percentile, it is scored by the study section panel; the score is used to determine whether to fund the proposal. More details about NIH review procedures and funding levels can be found at **www.nih.gov**.

Writing any grant proposal is time and energy intensive. However, writing an NIH proposal may be the most demanding. The majority of NIH grants are not funded the first time they are submitted. If your grant is not funded, you should look at the reviewers' comments, meet with a mentor, and decide how to address them.

- Are there areas where you can improve your application?
- Do you need more pilot data?
- Should you add another expert?
- Should you start planning the resubmission?

Rejection is difficult, but it happens to every researcher. The more grant proposals you submit, the more likely that they will be funded. Try to learn from preparing the application, reviewing the responses, and receiving feedback from your collaborators and mentors.

Obtaining Approval from Institutional Review Boards (IRBs)

Every academic institution has an IRB, a committee to review research proposals involving human subjects. The IRB makes sure that studies comply with federal, state, institutional, and any other applicable research guidelines.

Before submitting a proposal to your institution's IRB, ask the IRB's administrative offices about the requirements for investigators regarding protection of human subjects. Many institutions subscribe to the Collaborative Institutional Training Initiative (CITI) service (https://www.citiprogram.org/). The CITI program offers courses and certification in the protection of human research subjects. Check with your local IRB to see what specific program is used to document human research subject training. When you submit an application for grant funding, the funding agency will often want to have a copy of your training certificate along with IRB approval.

The IRB panel consists of experts in addition to community advocates. They review the ethics of proposed research to make sure that considerations for human subjects have been well thought out and implemented in the study protocol. The more thorough your proposal, the less likely the IRB will respond with multiple concerns. The panel may list issues to address prior to approving your research protocol. Since your methods may evolve as the study progresses, you should notify the IRB of any protocol changes.

It is critical to contact the IRB prior to application submission to find out the appropriate forms for your type of research; in fact it's helpful to meet with the IRB's administrative staff to talk about your proposal. Much of the IRB application involves walking through the research process. The IRB staff can keep you from committing easily avoidable errors in your proposal and can guide you through the forms. Working with the IRB may add several weeks to the application approval process, but it can be beneficial.

Understanding conflicts of interest in research is also important. Many institutions require training certification in "conflicts of interest" as well as "human subjects protections." At minimum, institutions require annual financial disclosure statements to ensure that there is no conflict of interest.

Collecting Data

Thinking about how to collect and analyze data will help you choose the most appropriate data collection tools. There are various user-friendly data collection tools available to both novice and expert investigators. For example, Web-based survey templates allow for either simple or complex surveys. Data collection tools, such as Redcap, allow easy and time efficient data entry and allow data export to other types of databases (Microsoft Excel) for editing. Scanning software can facilitate paper-based data collection.

Accurate database development is required to transfer data into a statistical package for the essential task of analysis. It is important to work with someone experienced in data management during the development of your database and survey instrument.

Another area to consider when developing databases is data cleaning. Investigators use different techniques to minimize errors in datasets. When entering data manually, many investigators double-enter the data. This involves

entering the data into two separate datasets and comparing them to identify entry errors. Discrepancies are checked against the original data collection tools to determine the correct value, and a final dataset is created with all the correct values for analysis.

In other cases, statistical analysis is used to help identify errors in data entry. Outliers (extreme values) are identified in the dataset—for example, an entry of "52 weeks" as the gestational age in a study on preterm delivery. Because "52 weeks" is out of the range of values in the dataset, the data would be crosschecked, and the actual gestational age identified as "25 weeks." However, this technique is useful for detecting errors resulting in outliers only. Other data cleaning involves checking the database manually for accuracy. This technique is useful if there are very few variables and a manageable number of participants, but it's unruly for large databases.

Interpreting Data

A statistician who understands your research questions is critical to your success as a researcher. You will need involvement from a colleague adept at statistics, or a professional statistician. Enlisting a statistician's involvement early in the process will help with developing a study design, writing a grant proposal, estimating sample size, and preparing an analysis plan.

Disseminating Findings

Following completion of your study, plan to publish your results by submitting abstracts for either oral or poster presentations at appropriate regional and national scientific meetings. Attendance at professional meetings can indicate the type of presentation that is most appropriate for the meeting's audience, and it also allows for networking with colleagues for potential future collaboration.

Academic Writing

One way to make writing more effective is to collaborate with other investigators. Such team efforts provide an opportunity to author a paper without being the principal investigator for the effort. You also have an opportunity to learn from others' experience in writing and manuscript submission.

Papers can be developed at various stages of your research endeavors:

- The background work for a grant submission may become a review article.
- The preliminary data collected to inform a larger project may be valuable to a larger readership.
- A specific case that prompted a research undertaking may be suitable for a case report.
- Unique or innovative study methods may be published separately from the study findings.

A logical time to develop a paper is after a presentation, when ideas are fresh. Discussion with colleagues may generate creative ideas about directing the discussion or about further analyses. In fact, try to start writing your paper on the plane ride home from the meeting.

Key Elements in Manuscript Preparation

Chapter 6, "How to Produce Scholarly Work," contains tips on getting started, choosing a journal, and preparing and submitting your manuscript. As an introduction to the next chapter, know that the following steps are key:

- Understanding the audience and the focus of the target journal. For example, it makes no sense to submit a paper on a clinical topic to a journal that publishes only basic science research.
- Reviewing the journal's instructions for authors (found on the journal's Web site). It may be helpful to ask someone not involved in the research to read the finished paper to ascertain that key items are addressed and that instructions were followed.
- Writing a succinct cover letter.
 - A journal's "instructions for authors" will list important elements of the cover letter. Be sure to also include a very brief introduction to your paper that will help the editorial staff assign the manuscript to appropriate reviewers, or provide a list of your preferred reviewers.
 - Follow up with the editorial office to make certain that your paper was received. The electronic submission process now used by most journals makes it easy to track your manuscript's progress through the submission, review, and decision process. Once the review has been completed, you will be notified of the reviewers' comments.

A manuscript may be accepted, rejected, or, most commonly, not accepted in its current form (needing revision).

- If your paper was accepted, celebrate!
- If your paper was rejected, look closely at the reviewers' comments. Consider them as you revise the paper for another journal. To determine which comments you should heed the most, get feedback from your mentors.
- If your paper needs revision ("revise and resubmit"), turn it around as soon as possible. Address the reviewers' comments point by point. The review will help improve your paper. In the opening paragraph of the response letter that accompanies your resubmission, state that you are grateful to have the opportunity to revise and resubmit your paper, and that your paper has been strengthened by the reviewers' insights.
- If you receive a note explaining that your paper has not been assigned to a reviewer because it does not meet the journal's needs, target a new journal immediately.

An Eye Toward Academic Promotion

Successfully publishing your research is usually an important step toward promotion. Academic promotion, in turn, indicates that you've reached a significant level of research accomplishment and recognition. (For more about academic promotion, including the role of research, see chapter 8, "Faculty Promotion and Tenure Systems.")

Getting published, then, not only confers national recognition of your research, it can help you advance your career. Ultimately, however, a published article offers researchers an innate sense of accomplishment that their findings have helped enhance medical knowledge and advance patient care.

Suggested Reading

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Tips for New NIH Grant Applicants

FIRST STEPS

- Have a good idea.
- Elicit institutional support and resources.
- Invest in developing your research vision.
- Seek mentorship.

• Ask three senior colleagues to act as your "grant committee." Discuss your ideas for the application with them before you start writing. Write one page of three to five specific aims and discuss these with the committee before writing the body of the application. (This approach was first put forth by Keith Yamamoto of the University of California, San Francisco.)

START WORK

- Establish your independence as an investigator.
- Generate preliminary data.
- Enlist collaborators, and include letters that clearly state the collaborations in your proposal.
- Look at successful proposals of colleagues in your field.
- Contact the NIH by Web and by phone; the staff are there to help you.
 - NIH: www.nih.gov
 - Center for Scientific Review: www.csr.nih.gov
 - National Institute of General Medical Sciences: www.nigms.nih.gov
 - Computer Retrieval of Information on Scientific Projects (CRISP, a searchable database of federally funded biomedical research projects):
 www.nlm.nih.gov/research/umls/sourcereleasedocs/current/CSP/#

START WRITING

- Prepare your proposal early—well before the deadline.
- Convey your confidence in and enthusiasm for the project.
- Review the literature for current issues, questions, and controversies in your area.
- Place your work in perspective by citing others in a balanced fashion. Make your priorities and timeline clear.
- Discuss potential problems and pitfalls, and describe alternate strategies.
- Carefully consider your funding needs with expert help. Start with personnel—you will need to explain fully the role of each person on the grant. Review the NIH modular grant rules (www.grants.nih.gov/grants/funding/modular/modular.htm), which specify that you must request funds in specific dollar modules and which do not permit increments for inflation in the "out-years." In order to arrive at an appropriate bottom-line figure, you will have to prepare a four- or five-year budget. Although you will not have to detail budgetary needs, keep in mind that the reviewers will judge your competence, in part, by how well your funding request matches the scope of the project.
- Use a clear and concise writing style.

- Proofread! Have zero tolerance for typographical errors, misspellings, or sloppy formatting.
- Critique your own proposal.
- Have others read your final draft as well.

AFTER REVIEW

- Remember that reviewers and the NIH program directors who decide funding try to give new investigators a break.
- If you are not funded the first time around, revise your application carefully with your mentor's advice. If you are funded, be sure to talk with your program director at least once a year to discuss your progress.

Adapted from National Institute of General Medicine Sciences "Research Funding" Web site: http://www.nigms.nih.gov/Research/Application/Tips.htm

CHAPTER SIX

How to Produce Scholarly Work

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"While not all professors are likely to publish with regularity they, nonetheless, should be first-class scholars." (Ernest Boyer 1990)

Arguably, the most recognizable marker of success as an academician is academic promotion. Traditionally, many factors are considered in a promotions decision, but particular attention is paid to scholarship. Prior to 1990, the dominant view of a "scholar" was to be a researcher in the basic science or clinical domains, and publication was the only measure of scholarly productivity. *Scholarship Reconsidered: Priorities of the Professorate*, a groundbreaking report commissioned by the Carnegie Foundation and authored by Ernest Boyer, ignited a national dialogue that changed our understanding of what defines scholarship and how it can be measured. Boyer proposed a broader view of scholarship by dividing it into four categories: discovery (the pursuit of new knowledge), integration (synthesizing new knowledge into the broader context), application (applying new knowledge to solve problems), and teaching (transferring new knowledge to educate and entice future scholars). This division of the intellectual functions of scholarship opened the door for all academicians to have equal standing in the role of the professoriate.

Depending on your current role, the work you do should fall into one or more of these domains of scholarship. But simply calling something "scholarship" is not evidence of scholarly work. This issue was addressed in a second Carnegie Foundation report in which six standards for assessing scholarly work were defined: clear goals, adequate preparation, appropriate methods, significant results, effective communication, and reflective critique (Glassick 1997). Therefore, these standards of scholarship apply whether the scholarly work is a research manuscript (discovery), a new educational curriculum (integration), a leadership role in a professional organization (application), or the developing and testing of instructional materials (teaching). According to Paul McHugh, MD (long-time chair of two professorial promotion committees at The Johns Hopkins University School of Medicine), promotion and tenure (P and T) committees first count the evidence and then weigh the count (McHugh 1994). Counting scholarly products gives objective evidence of the volume of your work, but it doesn't assess the weight, or quality, of your scholarly work.

In order to give your scholarly work the most weight, it is important to recognize that dissemination must occur. The scientific and medical communities depend on the written communication of ideas. Therefore, dissemination involves compiling the components of the work and describing in writing how each criterion for scholarship is met. First, the significance of the results can be established by discussing what consequence the results bring to the field and how the work opens new areas of exploration. Second, a reflective critique should include an appropriate breadth of evidence and suggestions on how future work may be improved. Finally, the message must be effectively communicated using a suitable style and effective organization. Once the scholarly work has been compiled in this manner, its weight is finally judged through submission to a peer-reviewed journal or educational repository. With the 300-year old peer-review process, scholarly works are subjected to the scrutiny necessary to ensure that they are (1) worthy of recognition from colleagues and (2) build a case for your promotion.

Getting Started

If you are an academic physician with a job description that includes research, you already have the opportunity (and the mandate) to produce scholarly works. Similarly, academic clinicians and educators have an opportunity and mandate to produce scholarly works, but it may not be recognized. If you are in either group, the following strategies will help.

Maximize productivity. Time is limited, so try to accomplish several goals at once with each project. For example, if you are asked to give a talk, write a review article while researching and preparing the presentation. When you have challenging, interesting, or unusual patients, prepare case reports and note any research you pursued while providing care. Case reports and review articles are good vehicles for entering medical publishing. Similarly, consider evaluating and disseminating your teaching innovations. The scholarship of teaching and learning, known as SoTL, has its own journal and professional community involving medical educators from a wide range of specialties. Many faculty members develop their own teaching portfolios that consist of academic products from their teaching assignments.

Seek collaborators. Because many scholars share common scholarly interests, serving as part of a scholarly team helps to ensure that your work will be taken seriously. Collaboration has additional advantages that include creative inspiration, built-in peer review, and division of labor. However, be sure to clarify the order of authorship fairly, and before work begins. Although author designation can be a touchy subject, the International Committee of Medical Journal Editors (ICMJE) has established guidelines on authorship, and many journals require authors to sign a statement that they have followed these guidelines in assigning authorship (ICMJE 2003).

Assist students and residents. Promotions committees approve when you serve as a student's mentor and coproduce a scholarly work in the process, and students covet these opportunities. For example, one of the chapter authors (FN) collaborated with a medical student to develop a clinical skills teaching module for intrapartum cervical assessment. The module included instructions for the teacher and educational and assessment tools for the learner (Hansen 2010). Producing this educational module, which was published in a peer-reviewed educational repository, was a rewarding experience for all involved.

Turn lemons into lemonade. An undesirable assignment can be turned into an opportunity for career advancement. For example, you might try to convert your role on a Patient Safety and Quality Committee into a study of outcomes following interventions to improve patient satisfaction or decrease morbidity.

Write for scientific meetings. The Call for Papers from most scientific meetings is an invitation to publish. Read these instructions carefully. Acceptance of your abstract indicates national-level peer review, and your presentation of the abstract at the meeting may lead to the paper's full publication. Furthermore, the association sponsoring the meeting will publish an abstract of your paper—a great way to test the waters for later acceptance of the longer work. Note: if you are reporting on original research at a meeting, be careful about publicizing interim results before your study is completed. Most scientific meetings do not allow the presentation of interim or preliminary results because news outlets may pick up the information and disseminate it long before your work is completed and accepted into a peer-review repository.

Ask for help. Recognize the primary resource available to you: your experienced colleagues. Seek out people who have had success in producing scholarship and ask them to mentor you. In some instances, your academic department may include faculty or staff specifically designated to assist you with study design, statistics, manuscript preparation, medical photography, illustration, and similar tasks. Medical librarians can be superb consultants regarding such publication-related challenges as: literature reviews on a subject; journal selection based on the type of article or prestige of the journal; identification of published experts to cite and recommend as reviewers; and the use of reference-management systems, such as EndNote. Many librarians are experts with presentation software, such as PowerPoint. (For PowerPoint tips, see page 92.)

Embrace scholarship. The pursuit of learning will help you grow, think more critically, and get promoted. This is persuasively stated in chapter 1, "Advancing in Academics: A 4-D Approach," and chapter 10, "Putting It All Together: Personal Strategies for Advancing Your Career"—but it bears repeating here as you learn about publishing your work.

At some point in their career many researchers collaborate with individuals funded by pharmaceutical, medical device, or biotechnology companies. For guidance—to ensure that researchers' approach to scholarship adheres to ethical standards when involved in such collaborations—members of the International Society for Medical Publication Professionals developed good publication practice (GPP2) guidelines. The guidelines, which outline standards from initial contracts and agreements through publication, make for essential reading for any researcher (Graf 2009).

Helpful Web Sites

American Medical Writers Association www.amwa.org

BioMed Central www.biomedcentral.com

EndNote www.endnote.com

Embase www.embase.com

Journal Citation Reports thomsonreuters.com/products_services/science/science_products/a-z/journal_citation_reports/

International Committee of Medical Journal Editors (ICMJE) www.icmje.org/

MEDLINE/PubMed www.pubmed.com

MedEdPORTAL www.aamc.org/mededportal

Public Library of Science www.publiclibraryofscience.org

Science Citation Index thomsonreuters.com/products_services/science/science_products/a-z/science_citation_index/

Science Citation Index Expanded scientific.thomsonreuters.com/cgi-bin/jrnlst/jloptions.cgi?PC=D

Web of Science thomsonreuters.com/products services/science/science products/a-z/web of science/ The influence of your scholarship on the writings of others can be measured somewhat objectively by checking the number of times other authors cite your publications. A librarian can help you search for this information in the Science Citation Index and the Science Citation Index Expanded.

Deciding Where to Submit Scholarly Work for Peer Review

Journals

All journals and repositories for scholarly work are not considered equal, and those using a peer-reviewed process are preferable. You may also want to consider the following factors when you search for an appropriate place to submit your work.

Subject material. The subject of your manuscript must be appropriate for the journal. As Robert Day notes in *How to Write & Publish a Scientific Paper*, not choosing the "right" journal may cause your manuscript to be rejected, even though it would be perfectly acceptable to another journal. Or your manuscript may be evaluated by reviewers unfamiliar with your area of specialty; and as a result, you may be asked to make revisions that are unnecessary. Selecting the wrong journal may also condemn your manuscript to professional obscurity, as the journal may not be read by your professional peers (Day 2006).

Ask your colleagues for their guidance about primary clinical publications before selecting a journal for article submission. Since medical education is a core mission of APGO, this book emphasizes publication of manuscripts about teaching and learning. Seek the advice of colleagues involved in medical education—or a librarian—about journals dedicated to medical education.

MEDLINE-referenced journals. Be sure that the journal you choose is listed in the National Library of Medicine's (NLM) MEDLINE Journal Selection database (http://www.nlm.nih.gov/bsd/journals/online.html). Such a listing is essential if you want others to find your article. You can do a journal search through the NLM's PubMed Web site (http://www.ncbi.nlm.nih.gov/pubmed/).

Prestige. The journals with the best reputations are usually well known, but it never hurts to ask colleagues and librarians for advice. If you are undecided between two apparently equal journals, a review of the Science Citation Index or Science Citation Index Expanded will clarify which journal other scholars reference more often. Again, a librarian can help with this.

Types of articles. Journals publish Instructions for Authors that contain a section typically called Types of Articles. Study this section to discern the differences between an original research report and a case report, review article,

or current commentary on an issue. Also, you may be surprised to discover that journals occasionally publish satire and humor. A letter to the editor, written within eight weeks of publication of an article, is another way to make it into print.

Electronic Journals

Many academic journals publish identical print and online versions. Other journals include more content online than in print, and still others publish exclusively on the Web. The peer-review process applies to both print and electronic journals, and promotions committees should acknowledge both.

Some journals publish edited and peer-reviewed manuscripts online before printing them, while others post unedited articles online as soon as they are accepted (Smith 2003). The establishment of Online First publication policies has occurred because the research community wants results available as soon as possible. Scientists and others can request electronic copies of articles related to their research as soon as they are edited and reviewed. This makes online versions of articles available to the public about nine weeks earlier than print versions.

Books

Writing chapters and editing books are highly valued in academic medicine. On the academic-promotions scorecard, however, they may earn you fewer points than peer-reviewed journal articles. Because of that—and because writing for books tends to require authors to draw on, and integrate information from, a cumulative body of knowledge—books are more often the domain of senior faculty than of those beginning their career. That said, opportunities abound, and here are four suggestions for exploring the book-publishing world:

Visit book publisher exhibits online and at conventions. Publishers look for hard workers with good ideas. They are eager to see your chapter outlines.

Discuss collaborative writing projects with your department chair and colleagues. A multi-authored book represents considerable collective expertise and a division of labor.

Serve on national committees. Committee work often generates projects that result in texts, manuals, or workbooks. The book you are reading is an example.

Get help. Writing books is time-consuming. A professional editor can be tremendously helpful. Writing courses, sometimes offered by medical school faculty, can be valuable as well. Another good source is the American Medical Writers Association, a professional society that promotes excellence in biomedical communication; it sponsors workshops and plenary sessions on scientific writing as part of its annual meeting.

Avoiding "Death by PowerPoint"

Authors often use—and abuse—PowerPoint in delivering papers at medical and scientific meetings. To avoid inflicting "death by PowerPoint" on your audience, follow these tips:

Remember that you are the main attraction, not your PowerPoint presentation. The purpose of your presentation is to support, illustrate, and summarize what you are saying. Use a wireless remote so you're free to move around and aren't tied to your computer.

Keep it simple. Limit the number of words per slide to 15–20. Limit the number of words per line to 5–6. Limit the number of bullet points per slide to 5–6. You don't want your audience to have to sit there and read while you wait for them to finish. And (even worse) you don't want to have to read lengthy slides aloud. That's when a PowerPoint presentation becomes a remedial reading lesson.

Make it legible. Choose a bold, simple, large font. Arial Bold and Verdana are popular because they're easy to read. Size it up—to at least 40 points, if you want it to be readable from the back of the room. (Some presenters and audiences prefer 48 or even 72 points.) Make sure that the words contrast with and stand out from the background. Avoid busy backgrounds. Avoid using two strong colors together—one for the font, the other for the background. The worst case? Bright green type on a bright red background, or vice-versa.

Keep it interesting. Avoid stock templates; everyone has seen them before, and you want your presentation to look different right from the start. Use a custom template or do a Google search for free PowerPoint templates. Use pictures, graphs, and charts, not just slide after slide of bullet points. Note that interesting does not mean distracting. Avoid graphics for the sake of graphics. If they don't enhance your presentation, don't use them. Avoid the bells and whistles beloved by the novice, such as flying bullets, builds, and sound effects. The best way to move from slide to slide is with a simple dissolve.

Let the audience know where you're going and where you've been. Include slides that list your key points—both before and after you cover them. Use topic headers for each subject area. You might also want to use thematic clip art for each topic, as long as it's simple and not distracting. Use full-screen titles to announce major transitions.

Finally, to make sure that a technical glitch doesn't kill you:

Always have a backup! Don't count on the presentation loaded into your computer or copied onto a single flash drive. Bring at least one additional copy, and carry it separately from your laptop. Put your entire presentation on your Web site so you can download it if necessary. There's no such thing as too much redundancy.

Audio, Video, and Multimedia Productions

Medical scholars and teachers commonly use and write content material for non-print publications such as:

- iPad/smart phone apps for clinical medicine and education
- Audio/videos of surgical procedures, obstetrical techniques, case presentations, and management algorithms
- DVD multimedia programs for computer-assisted instruction or online instruction

Unlike with journals, peer review is not common with these newer avenues of publication. Academic promotions committees struggle with how much weight to assign to this work. Here are four ways you can bolster the academic credibility of an audio, video, or multimedia production:

Submit to MedEdPORTAL. MedEdPORTAL is a repository for educational resources. All submissions are peerreviewed prior to acceptance, thus meeting the criterion for scholarship. For this reason, P and T committees are increasingly recognizing scholarly works indexed in MedEdPORTAL. Therefore, it should be the primary destination of your non-print educational works.

Submit to academic competitions. Medical meetings commonly have film festivals. Selection by the festival and possibly an award—indicates a form of peer acceptance. Before producing your video, study the guidelines in the Call for Videos. There are usually program-length restrictions, continuing medical education (CME) rules, and instructions regarding format. APGO, as well as subspecialty societies, can guide you.

Place your production in a respected library or with a publishing company. This will add to its academic value.

Get a grant for your production. A grant will add credibility to your production and will be appreciated by your medical school. And you'll welcome the extra help the grant can buy. Audio, video, and computer material usually requires technical help with filming, recording, editing, programming, and reproducing. Grants are available to cover production costs, which can be home-movie low or Hollywood high.

As with journal co-authors, be sure to discuss in advance how participants will be recognized in the credits of your audio/video/multimedia production. Also, be clear about how much control you will have over final editing, marketing, and decisions about future editions. If the product will generate income, clarify how the profits will be distributed.

Paper and Poster Presentations

Scientific meetings routinely include these types of presentations. While giving a presentation is not considered publishing in the formal sense, it reflects a measure of peer review, recognition, and respect.

Watch for the Call for Papers and Posters announcement from your specialty society. You can develop posters from original material or create them from previously published findings. Posters are a good way to simplify and highlight the importance of specific information. You may also use them for teaching purposes.

A final note about posters: They are a great showcase for collaborations of medical students and residents.

Using the Web

Sometimes it's difficult to remember how scholarly publishing was done decades ago, since computers and the Internet have eliminated the time that potential authors used to spend commuting to—and wandering in—medical libraries. You can accomplish the following online.

Do a literature search on your topic. You'll want to review relevant literature before you start your research. You can use several major database resources, such as the NLM's MDINE/PubMed, the Web of Science, or Embase. Medical school libraries offer free access to these and/or other databases. To ensure a thorough and efficient search, enlist the aid of a librarian.

Learn about specific journals. Use journals' Web sites for information such as Instructions to Authors and other guidelines. For instance, you can find very helpful author guidelines to the *American Journal of Obstetrics and Gynecology* at www.ajog.org/.

Determine the most prestigious journals for manuscript submission. Since the 1960s, a journal's impact factor—a determinant of a journal's quality and influence—has been defined by the following formula (Byrne 1998):

Number of times articles from the journal are cited during the previous two years

Total number of articles published in the journal during the same two-year period

Journal Citation Reports (JCR) tracks reference citations from thousands of science and social sciences journals and reports impact factors annually. Your librarian will be able to help you access this information online.

Identify potential experts to recommend as peer reviewers. You may be asked to suggest peer reviewers for your manuscript. Even if the journal does not require you to submit reviewer recommendations, you'd be wise to do so. By making such recommendations, you can be assured that the reviewers are knowledgeable on your topic. Use PubMed and the Science Citation Index or Science Citation Index Expanded to identify key authors—those who have published extensively in your field.

Submit manuscripts electronically. Most journals accept only electronic submissions.

Preparing Your Manuscript

There are entire books on how to write and prepare medical-related manuscripts for publication. (See the references listed at the end of this chapter.) One of the best is *A Guide to Writing for Obstetrics and Gynecology* (ACOG 2000). Although this guide was written for a specific journal, it's helpful for any medical journal.

Alberto Manetas, MD, formerly a president of APGO and an associate editor for the *American Journal of Obstetrics and Gynecology*, developed a presentation titled "How to Be a Successful Medical Writer and Survivor of the Editorial Process," which includes the following tips:

Read the Instructions to Authors. Target a particular journal and adhere to that journal's submission specifications for original research reports, case reports, review articles, current commentaries, etc. Do not exceed the recommended length or number of references. Use checklists, if provided, to minimize submission errors and delays in publication.

Make your manuscript readable and easy to follow. Make titles short and descriptive; use key words that will attract colleagues searching the literature to your work. The abstract should be a clear and concise mini-paper.

Include appropriate documentation. Include documentation of Institutional Review Board (IRB) approval, grants and other support, and conflict of interest information.

Pay attention to all details of your writing, figures, and illustrations. Write, rewrite, and then ask someone else to read it.

State the problem in the Introduction. Phrase the problem as a hypothesis.

Write the Materials and Methods sections so readers can repeat the experiment. Describe the control group as carefully as the intervention group.

Put your results only in the Results section. There is no need to include results in Methods or to repeat results in the Discussion or Comment section. Make all tables and graphs understandable without reference to the text. Write the Discussion as a concise and logical explanation of your results. Point out what is new about your results and why they are significant. How does your report compare to others? A conclusion is usually helpful.

Put references in the appropriate format. This format varies from journal to journal. Use reference-management software such as EndNote to create and save references, move them in your manuscript, and automatically change the style for another journal. Remember to cite your own papers. If you are deciding among several apparently comparable references, run a search on the Science Citation Index or Science Citation Index Expanded to determine which one has been most frequently referenced.

Write a cover letter. It introduces your work to the editors and explains potential problems up front. Emphasize that the work has not previously been published and that all authors participated. Briefly state the significance of your manuscript. If there are conflicts of interest, clarify them. In the cover letter, it is appropriate to suggest reviewers or to name unacceptable reviewers.

Submit your manuscript per the submission guidelines. Pay attention to specifics in the Instructions for Authors.

Think about the politics of peer reviewing. The editorial process includes selecting peer reviewers. Editors often search a database like the PubMed to identify other authors on the subject. You can also ask a librarian to use a Science Citation Index or Science Citation Index Expanded review to help identify other key authors. The key authors will likely end up reviewing your article. If you do not cite their papers, they will not be pleased. Cite their papers in your manuscript, and recommend the authors as reviewers.

Getting It on Paper By William Metheny, PhD

Where to begin? The question can lead to procrastination or writer's block, which are usually the result of trying to make the first draft perfect. That won't happen, so don't expect perfection. And don't get tangled up in obsessively outlining the paper in detail. Outlining is not writing.

One way to beat block is to write the Methods section first, then the Results, and then the Conclusion. These sections are more straightforward than the Introduction and the Discussion. You will feel as if you are making progress when you get these sections on paper—and you are.

Another approach is to write the abstract first before tackling the paper. Write it longer than the word limit; you will have to revise it after you have written the paper.

Still stuck? Try drawing a mind map. This frees you from the trap of outlining and creates a picture of what should be in the paper. For example, make a mind map for the Methods section by drawing a bubble in the middle of a blank sheet of paper. In the bubble, write *Methods*. Connect the bubble to other orbit bubbles. These orbit bubbles contain words or phrases that readily come to mind, one per bubble, such as *sample, power calculation, type of design,* etc.

Next, write as much as you need to explain each of the words in the bubble. After you have written about each word, assemble these subsections in an order that makes sense. Now you are writing your paper and on your way to submitting it to a journal.

Again, a first draft is never perfect. Polishing comes with subsequent drafts.

Be patient and humble. Editors rarely accept a manuscript as is. They may ask you to revise, they may reject but invite you to resubmit, or they may simply reject the paper. If you are asked to do a revision, your revision should include a cover letter clearly addressing all concerns raised by reviewers. Follow the advice Winston Churchill gave about public speaking: "Be clear. Be brief. Be seated." In this context, "being seated" means not arguing with reviewers or editors. When you submit revisions, check with your editor to see if they prefer "clean" revisions, or a file that incorporates "Track Changes" to clearly illustrate that you have followed the reviewers' advice.

Respond ASAP. When you receive a proof of your manuscript prior to publication, check it immediately. Read it carefully line-by-line and make only those changes that are essential for accuracy. This is not an invitation to re-edit or rewrite.

Conclusion

In academic settings, it is expected that knowledge be discovered, integrated, applied, or taught. This scholarship distinguishes academic medicine from non-academic medicine and is built into most faculty promotion ladders. While "publish or perish" is not the inviolate rule it once was, it still exerts much influence over the fate of academic physicians. National recognition of scholarship requires motivation and discipline on your part, but opportunities are abundant. Your career in academic medicine will clearly benefit when you produce scholarly work—and the more often, the better.

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CHAPTER SEVEN

Documenting Your Career: The Curriculum Vitae and Teaching Portfolio

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Academic physicians, like most professionals, have diverse job responsibilities. In the past, documenting work effort was relatively straightforward. Today, because we do so many different things and perform such a variety of roles, and because we are increasingly held accountable for our actions, this task has become far more complicated.

During much of the past century, a simple curriculum vitae (CV) was the sole document the academic physician needed to exhibit his or her accomplishments to the best advantage. Today, however, the CV is not only harder to organize, it's not the only document needed to progress and flourish in an academic career. It is often necessary to create and maintain a second document, the teaching portfolio. For many, an electronic format, an e-portfolio, replaces the paper portfolio to allow for a more dynamic document that may include streaming video and audio files.

The CV and teaching portfolio are the coins of the realm in medical academia. They will introduce you to professional colleagues and will open (or close) doorways to opportunities for you. Their purpose is to distill your career and to highlight the most impressive parts in logical, accessible, and relevant ways. Many institutions dictate a specific format for the promotion CV and teaching portfolio. (Samples of both these documents are included at the end of this chapter; see pages 117–122.)

The CV and teaching portfolio play an important role in the promotion and tenure (P and T) process. Typically, P and T committees rely in part on candidates' self-presentation of their accomplishments in teaching, patient care, research, service, and administration. If you suspect that your career may blossom elsewhere, search committees at another institution will use your CV and teaching portfolio to make an initial determination about whether your skills and experience will be a good fit. Additionally, both documents, particularly the CV, serve as telegraphic summaries for appointments to national committees, applications to various professional societies, grant applications, and for moderators of speaking engagements (to make it seem as though you and the moderator introducing your lecture are old chums—though you may have just met!).

As your career develops, the CV and teaching portfolio will serve as valuable self-assessment tools, and the act of polishing and updating these documents is excellent preparation for an annual review. (See chapter 4, "Measuring

Your Performance.") As you revise these documents, you'll become aware of your strengths, as well as areas where more work may be needed.

Above all, the CV and teaching portfolio should be viewed as evolving documents that are essential to your career.

Keeping Things Current

Your CV and teaching portfolio represent your career. Since your career is dynamic, both documents will need to be updated frequently. Inevitably, you will be asked at the last minute to provide a CV to be e-mailed yesterday. If it fails to mention your last three papers and grant awards, you are not doing yourself justice.

You should develop some way to keep track of appropriate additions to both your CV and teaching portfolio. For example, you might set up a holding file (either electronic or paper) with separate folders labeled for different types of activities (teaching, lectures, papers submitted/on press/published, grant proposals, awards, etc.). Teaching activities can also be sorted by type (e.g., medical student, resident, continuing medical education [CME], multimedia, graduate student). Get in the habit of adding pertinent documents (including video, audio, or other electronic data) to the appropriate folders. The next time you update your CV or portfolio (definitely before you send it out again), check your holding files for items that may not yet be included. Once you have added information to your CV or portfolio, move it out of the holding file.

To make sure that you always submit your most recent CV or teaching portfolio, keep a running header or footer on each document to indicate the date when it was last revised. Delete outdated documents so that only your current ones are available.

If you maintain several versions of your CV for different purposes—for instance, an institutional CV for academic positions, an abbreviated one to accompany manuscripts submitted for publication, and a National Institutes of Health (NIH) biographical sketch—be certain to make substantial changes in each of them at the same time and save only the most current versions. Tailoring your documents for different purposes is a smart strategy. At times, you may wish to emphasize one aspect of your career and de-emphasize others.

Choosing a Font

Since CVs are frequently faxed, use an easily legible font size—either 11- or 12-point for the text and 11- to 13-point for the headings. Your name should be no larger than 18 points and no smaller than 12 points. Some graphic designers believe that sans-serif fonts (those without flourishes at the ends of the letters) are easier to read.

The most popular sans-serif fonts are:

Arial Geneva Helvetica *Follow any guidelines and formatting instructions specified by your institution for the preparation of both documents.* Special rules often apply for style, format, and documentation, particularly with regard to the P and T process. Seek out this information early; do not wait until the last minute!

CV vs. Résumé

You may be wondering, "What are the differences between a curriculum vitae and a résumé?" There are four main differences:

1. A CV is longer. Résumés are generally one to two pages in length; a CV can run to several pages.

2. The information provided in a CV is more detailed and descriptive. A résumé is a summary of your skills, education, and professional experience. A CV is more of a comprehensive outline of the work you have done. Because the length is not limited, you're permitted—and expected—to give extensive information about your career to date in all of its many facets.

3. While a résumé usually includes a Job Objective Statement and a Summary of Qualifications section, a CV does not—unless you want to include them or are asked to include them.

4. A résumé is used mainly in the business and nonprofit environments, and it is appropriate at all levels. A CV is used primarily in the academic, scientific, and research environments at the doctoral level and above, and when applying for fellowships or grants. Exceptions: In Europe, the Middle East, Asia, and Africa, prospective employers in all environments and at all levels expect to receive a CV, not a résumé.

Often, it is more difficult to decide what to exclude from a CV or teaching portfolio than what to include. If you are unsure, ask an experienced colleague or mentor. As a general principle, it is a good idea to share early drafts of your CV and teaching portfolio with others to get their reaction and advice, particularly the academic chair who must endorse faculty promotion documents.

The Curriculum Vitae

The CV, also known as a vitae, is the core document in which your academic skills and accomplishments are presented for review. You will use it not only to apply for new academic employment, but also to increase your chances of (1) receiving recognition for your work and (2) moving ahead professionally within your current institution.

As Hinck notes: "[The CV] is the document of choice to submit to apply for a committee appointment, grant, award, or scholarship. It represents one's professional background in professional organizations, when on faculty at educational seminars, and in networking opportunities with others having similar interests or abilities. Some journals require submission of a CV when manuscripts are considered for publication" (Hinck 1997).

From its Latin derivations, curriculum vitae can be roughly translated as "the living race"—a phrase that aptly describes many of our professional lives. Given the fast pace at which we often live and work, it is imperative that materials for the CV (as well as for the teaching portfolio) be collected in real time, even if those materials are not organized and incorporated into the CV until later. (See the previous "Keeping Things Current" section.)

Formatting Your CV

To allow readers to easily find the information they seek, your CV should be well organized. There are many different ways to format a CV. You'll find an example of one commonly used format on pages 117–119. (For additional format examples, see the resources listed in "Suggested Reading" on page 116.)

Check with your institution to see if there is a required format. Unless you are compelled to use a particular format, pick one that is pleasing to your eye and is flexible enough to adapt to your unique situation. It should also be easy to update.

Stick with the format throughout the document. If there are entries that could reasonably be included in more than one section of the CV, resist the temptation to repeat them. Redundancy is not a virtue in CVs—conciseness is.

Selecting Information for Your CV

A CV contains various categories of information. Except for your personal and educational information, which should always appear first, these sections can be moved around to fit the particular job or situation for which you are preparing your CV.

Following are the basic categories you should consider. Include all that are applicable to your situation. (For easy reference, the CV's contents are also listed in outline form on pages 110–111.) Many other options for categories exist; you should devise those that emphasize your background, achievements, and strengths.

Personal and contact information. The initial information on your CV should be your name, degree initials, current job title, and contact information. At the minimum, include your professional contact information (work address, telephone, fax, web addresses, e-mail addresses) and if you feel it is appropriate, you can include your personal contact information.

If you are seeking a job, you may wish to include only your home or personal contact information to avoid untimely communication at your workplace. Let your reader know the best way to reach you, perhaps with a parenthetical such as "(preferred)." In this age of identity theft, you should never include your Social Security, passport, or immigration numbers on your CV. If necessary, they can be provided as needed in another fashion.

Although you must indicate your legal residence status, you do not need to provide information about your age, sex, race, religion, political affiliation, marital or parental status, disability, or national origin. Government regulations prohibit employers from basing hiring decisions on such information. (Of course, it's possible to deduce certain facts, especially your sex and approximate age, indirectly from the information you provide. Still, it is illegal for employers to consider that information when hiring you.)

In some cases, you may decide to include personal demographic information. If you're applying to a sectarian institution, for example, you may wish to cite your religious affiliation. Most often, however, such information is irrelevant.

Educational history. List your latest degree first, then the others in reverse order. You do not need to include educational history prior to college, unless it is relevant to your purposes.

This section should include the name and location of each degree-granting institution, the year of your graduation, your degree, and the subject of your degree. If you graduated with some sort of distinction, such as *cum laude*, by all means include that information.

This section might also be an appropriate place to list important educational accomplishments, such as your fluency in a foreign language. If you have completed education that did not result in the awarding of a degree, but is relevant to your professional work, include it. An example might be coursework taken in educational theory, biomedical engineering, or business.

Employment history. Like the educational history section, this section should be organized in reverse chronological order, with your current job listed first. Include your appointments and jobs back through college. For some uses, you may need to add a concise explanation of what a particular job entailed. For example:

2005–2009 Medical Director of Outpatient Services, Women's Hospital. Had budgetary responsibility for clinical services valued at \$6 million; established medical protocols; monitored and developed programs to improve patient satisfaction.

Be sure to show your progression through different levels of the academic hierarchy. Even if your portfolio of work did not change, cite the dates of your appointment to instructor, assistant professor, associate professor, or professor.

Certification/licensure. List all relevant medical or other licenses that you have. Provide the state, license number, and active dates for each license. The same is true for any certificates relevant to your work.

Do not include your Drug Enforcement Administration (DEA) registration number, as it could be used unscrupulously by a reader. You may list the level of DEA authority you have, if appropriate.

Professional memberships and activities. List in reverse chronological order. Because this section can become quite lengthy and unwieldy, it requires some level of organization to make it useful. Preparation can serve as a self-study exercise, helping you review and evaluate your current time commitments, particularly if you are "overcommitted." Here are two possible organization schemes for listing administrative work:

1. By sphere of influence

Departmental committees School of Medicine committees Hospital committees University committees State organization committees National organization committees

2. By topic

Educational committees Clinical committees Research committees Administrative committees Specialty committees

As you mature in your career, this section will expand significantly (unless you are excellent at saying "no"!) and its organization might change as well. If you have spent time on a committee as a chair or leader, make your leadership role clear by listing your leadership title and the dates you served.

Honors and awards. This is a section in which you can blow your own horn—but be reasonable. Do not, for example, list Eagle Scout when applying for a senior leadership position. To include high school honors and awards in a CV that will be used for a high-level position looks like padding.

In this section of your CV, do list teaching awards, named professorships, honorary degrees, research awards, and the like, in reverse chronological order. Recent non-professional awards can be included if you think they are relevant. Examples seen on real CVs include 4th Degree Black Belt, Tae Kwon Do, 2009; Second Place, Piano Competition, 2010; and an award for contributions to your child's school governance council. Be prudent about listing such achievements, however, as they can make your CV look unprofessional.

Educational activities. Many institutions require a separate teaching portfolio in which educational activities receive special attention (see pages 120–122 for an example). Even if you maintain a teaching portfolio or e-portfolio, your CV should have a section on your educational activities. For some uses, your teaching portfolio will not be requested, and unless it is paired with your CV, you will appear to have no experience in this area.

A list of recent, selected teaching is appropriate, especially if it highlights broad knowledge and recognition of your expertise in a given area (such as when you are invited to give guest lectures). Organize your educational activities in reverse chronological order.

If your target institution does not require a teaching portfolio, then this section of your CV will be longer than if you also maintain a portfolio. Upon receiving a request for your CV, always ask if you also need to include a teaching portfolio.

When submitting a teaching portfolio along with a CV, your first entry after the initial "Educational Activities" heading should be "Please see full details in my teaching portfolio." Follow this with important highlights of your educational activities, such as course directorships, educational awards (if not included previously), and other areas that you believe are worth emphasizing.

Grants. This section should also be organized in reverse chronological order—active grants first, followed by expired grants. Include the dates, granting agency, grant number, title, award total, and whether you were or are the principal investigator or co-principal investigator, as well as the amount of time you spent or are spending on the project (your percent effort).

Renewals of previous grants can be listed by citing the original grant first, with subheadings for renewals, or by citing the active renewal first.

Patents and inventions. The importance of this section is increasing in academics. List any patents received, with a brief description of the invention and the U.S. patent number. List in forward chronological order—most recent last.

Editorial work. In reverse chronological order, list any peer-reviewed journals for which you are a reviewer. If you are on an editorial board or are an editor of a board, list those activities and your years of service.

Publications. For people with active scholarship, this is the section of the CV that requires the most frequent updates. Develop a way to remind yourself to update your CV at each of the three points in the publication process: when papers are (1) submitted, (2) in press, and (3) published.

Update the publications section of your CV at three points in the publication process: when the article is submitted, in press, and published.

In your holding file (see "Keeping Things Current" on pages 101–102), you might include a copy of each article or book chapter, or the title page of each book, at the time you submit it for publication. This system can also help you keep track of where your paper is in the peer-review process, and it can serve as a tickler system for checking on its status.

Number your publications. P and T committees and other reviewers will want to count them, so save them the frustration of having to do the adding themselves.

Unlike most other sections of the CV, the publications section should be written in forward chronological order. This way, you do not have to renumber each published paper every time you make an addition to the list.

Be sure you know your institution's requirements regarding bibliographic style—how to abbreviate journal names and whether to use initials versus full names for authors. An institution may have its own bibliographic style, or it may require you to follow the style of a particular style manual, such as the American Medical Association (AMA) Manual of Style (AMA 2007). It is reasonable, and it helps the reader, to boldface your name in the list of authors, as this will make your name stand out.

> In almost every section of your CV, your activities and achievements should be listed in reverse chronological order—most recent first. This is an easy way to signal your reader where you are in your career at this moment in time. The only information listed in forward chronological order are patents and inventions, as well as publications.

Separate peer-reviewed papers from non-peer-reviewed and invited papers. Put the peer-reviewed papers first, since they are the most important academically. If relevant, include Web publications, e-journals, and video publications. If you have been a guest editor for a journal, list that distinction in a separate category or include it in the invited papers section.

List books and book chapters separately. If you have authored or co-authored a book, make sure this is given more attention in your CV than your book chapters.

Outside the United States

If you are applying for a job in Europe, the Middle East, Asia, or Africa, you will be expected and required to provide more personal information on your CV. The U.S. laws governing what prospective employers can and cannot ask do not apply overseas.

You will need to give your date of birth, place of birth, and nationality. You will also be asked to state your sex, marital status, number of dependents, spouse's occupation, health condition, ethnic background, and passport number. You may also need to state your religion, overseas living and working experience, and security clearance.

The Teaching Portfolio and E-Portfolios

Having, as a core mission, the education of learners—this is one characteristic that differentiates medical schools from biomedical research facilities. Many, if not most, medical schools now require that academic physicians document their teaching efforts in order to be successfully promoted.

The need to evaluate faculty teaching efforts as objectively as possible led to the teaching portfolio, beginning with the 1978 publication of *A Mini-guide to Preparing a Teaching Portfolio* (Shore 1978). The number of medical schools that use some form of teaching portfolio to help determine faculty excellence in education increased by more than 400 percent from 1992 to 2003 (Simpson 2004). The teaching portfolio, sometimes referred to as an educator's portfolio or teaching dossier, is now firmly established as an effective way for faculty members to demonstrate their commitment to teaching, their teaching style and philosophy, their pedagogy, their continued education and development, and their achievements in medical education.

What Is a Teaching Portfolio?

In his book *The Teaching Portfolio: A Practical Guide to Improved Performance and Promotion/Tenure Decisions*, Peter Seldin describes a teaching portfolio as a compilation of materials that "[c]ollectively suggest the scope and quality of a professor's teaching performance." Modeled after the portfolios that artists, photographers, and architects use to display their work, the teaching portfolio presents selected information—backed up by empirical evidence—about a faculty member's teaching experience and effectiveness. The teaching portfolio, notes Seldin, "is to teaching what lists of publications, grants, and honors are to research and scholarship" (Seldin 2004). An e-portfolio takes advantage of digital formats to increase the dynamism of the teaching portfolio. E-portfolios can be published in different media to allow for easier distribution (Lewis 2007).

Purposes of a Teaching Portfolio

The most obvious and, for most faculty, the most compelling function of the teaching portfolio is its possible use in their institution's P and T process. It is critical, therefore, that you know the specific requirements of your institution—and of your department—for the development and content of a teaching portfolio. In some cases, a department has more stringent criteria for teaching portfolios than does the academic institution itself.

The teaching portfolio is especially important, of course, for faculty who are on a clinician-educator track, which has teaching as a primary professional activity. On this track, it is necessary to demonstrate that your educational efforts exceed normal expectations and exhibit excellence—in other words, to demonstrate not just strong student numbers and long hours invested in teaching, but also the effectiveness and quality of your teaching.

You can also use this document to reflect upon your teaching goals and accomplishments. Which aspects of your teaching have been successful? Which have been less than successful? What would you change? As the Society for Academic Emergency Medicine notes, the teaching portfolio allows academic physicians to reflect as much on their educational efforts as on their research efforts (Society for Academic Emergency Medicine 2011). Not surprisingly, research has shown that the process of putting together a portfolio often helps faculty members grow as educators (Roth 1998).
Medical schools sometimes use the requirement of a teaching portfolio as a way to emphasize their core mission and develop an educational culture within their institution. The portfolio can be the hook through which an education department is able to get faculty participation in teaching initiatives at the school. A medical school may also use the teaching portfolio to document the teaching efforts of individual faculty members who receive specific salary support for those efforts.

Developing Your Teaching Portfolio

Remember that individual medical schools—and departments within those schools—often define the content and format of the teaching portfolio. Reece et al. recommends that one of your first steps in developing a teaching portfolio should be to analyze your unit's teaching mission (Reece 2001). As medical school faculty, you may need to do this at the divisional, departmental, school, and university levels in order to ensure that your activities and your documentation of those activities are appropriate.

Once you are clear about what types of materials are necessary at your institution, be proactive in collecting these materials in a continuous fashion. Create a storage system—either dedicated electronic files, or paper hanging files labeled by category—to save documents as they are developed or collected. This will help you avoid frantic pre-P and T searches for information needed to complete your portfolio. While you will collect most of your own materials, some schools' education departments retain student evaluations and peer evaluations. If you don't automatically receive copies of these evaluations, request them so you are sure to have them for your portfolio.

In general, the teaching portfolio should be ten or fewer pages in length, plus a title page, a table of contents (to guide the reader), and appendices for supporting documents. The body of the portfolio should be in summary form—bulleted or numbered lists; outlines; tables; and short narrative paragraphs. The appendix may include copies of lecture notes, syllabi, published papers, videotapes, online instruction files, references to Web-based tools, or other materials that highlight your work. Lewis and Baker (2007) suggest content and media types for e-portfolios to include some text, PowerPoint slides with your voiceover, scanned documents of your evaluations and certificates, and image (photos or graphics) files. Streaming video of a lecture or small-group discussion could be included, as well as screen shots or URL links to Web learning modules you have created.

As you organize your material, keep in mind who will be reading or viewing the document and what they will be looking for. Make sure the document is structured for easy reading and evaluation.

As Kuhn (2004) notes, many people find that the easiest way to create a teaching portfolio is with a tabbed three-ring binder. You may also want to scan the materials to create electronic copies or Web pages. Several types of software, such as Microsoft's FrontPage and Adobe Acrobat, can help you create a professional-looking e-portfolio. As Kuhn explains, many educators "use a combination of all three formats—the binder to archive letters and documents as they are received, the computer for rapid updating of activities, and the CD-ROM for yearly archiving." Certainly, the e-portfolio expands on this concept.

Elements of the Curriculum Vitae

PERSONAL INFORMATION

- Full name, degree initials, current job title
- Contact information: current home and work mailing addresses, phone numbers, and e-mail addresses (indicate which type of contact is preferred)
- Legal residence status

EDUCATIONAL HISTORY

- Degrees (in reverse chronological order—most recent first): name and location of each degree-granting institution, year of your graduation, your degree, subject of your degree
- Graduation honors (e.g., cum laude)
- Other important educational accomplishments (e.g., fluency in a foreign language; other education relevant to your professional work)

EMPLOYMENT HISTORY

- Relevant appointments and jobs through college (in reverse chronological order-most recent first)
- A concise explanation of each job (for some uses)
- Different titles held at same institution

CERTIFICATION/LICENSURE

• Relevant medical or other licenses or certificates: state, license number, active dates

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

- Memberships in professional organizations
- Committee membership/leadership

HONORS AND AWARDS

- Teaching awards, named professorships, honorary degrees, research awards, etc.
- Recent non-professional awards (when relevant)

EDUCATIONAL ACTIVITIES

- Content and size varies, depending on whether a separate teaching portfolio accompanies your CV.
- If a teaching portfolio is included: State "Please see full details in my teaching portfolio." Then list selected didactic lectures and CMA teaching, course directorships, and educational awards (if not included previously).
- If a teaching portfolio is not included: See the "Description of teaching activities" on pages 112–114.

GRANTS

- Grant proposals submitted
- Grants funded
- Statement of research interests

PATENTS AND INVENTIONS

• Patents received, with description of each invention and its U.S. patent number

EDITORIAL WORK

- Peer review work
- Editorial boards

PUBLICATIONS

- Papers (submitted, in press, and published, in chronological order)
- Designate peer-reviewed items
- Include Web publications, e-journals, and video publications
- Books and book chapters

Assessing This Information Online

Paper CVs and teaching portfolios may one day be obsolete. Increasingly, professionals of all kinds—in business and in academics—are putting their information online.

Many universities now provide space on their servers for faculty Web sites. These sites often contain links to online CVs and teaching portfolios.

Putting your information online makes it instantly accessible to anyone you want to see it (and, of course, to everyone else, unless access to your site requires visitors to log in). This can be very convenient. However, it also requires you to be especially diligent about keeping your information current. If you refer someone to your site, you want to make sure that he or she sees the very latest news about your career. Otherwise, your site will look questionable, stale, or even abandoned.

To reassure the reader that your information is current, include a Last Updated date at the bottom of your home page.

Caveat: You may choose not to include certain types of personal information on your Web page, like your home address and phone number, your cell number, or your fax number. In addition, you may want to list a different e-mail address on your Web site than you use for your personal or professional e-mail.

Typical Content

Given that most medical schools have their own format and content requirements for the teaching portfolio, any content discussion here must be general. As Seldin points out, a portfolio is also a highly personalized document; no two are exactly alike (Seldin 2004).

Follow the format required by the institution whose readers will be looking at it. Your portfolio's content will be determined by your unique teaching goals, strengths, and experiences.

Also, keep in mind as you prepare your portfolio that teaching has a broad definition. You may include any educational activities that you have undertaken for undergraduate students, graduate students, postdoctoral students, medical and other health affairs students, patients, community education programs, CME programs, and other groups. You may also include committee and administrative activities related to education.

What follows is an overview of generally recommended sections for a teaching portfolio. These recommendations are based on information from portfolio requirements prepared by a number of institutions, including the University of Miami School of Medicine, the Wake Forest University School of Medicine (offering information from a number of universities), the Emory University School of Medicine, the Albert Einstein College of Medicine, the University of Massachusetts Medical School, and the Society for Academic Emergency Medicine (Coates 2003). (See individual listings under "Works Cited" on pages 114–115.)

Statement of teaching philosophy. Your portfolio should contain a personal statement (usually one-half to one page in length) that portrays the general philosophy underlying your teaching. What is your vision of your role as a teacher? When developing such a statement, you might choose to include a personal theory of learning, your ideas on the characteristics of good teachers and the aims of instruction, and/or your beliefs about the roles and responsibilities of both learners and teachers. Having a strong, clear statement about your educational philosophy can help provide the context within which your portfolio will be evaluated.

Description of teaching activities. A wide variety of activities may be listed here. You may choose to divide them into intramural (within your current institution) and extramural endeavors. You may decide to further divide the activities according to the type of learner you instructed, such as medical students, graduate students (master's and doctoral candidates), and other health professional students (nurses, physician assistants). Here are some of the types of activities to include:

Intramural teaching activities:

- Formal university courses and lectures, including CME
- Hospital teaching rounds
- Clinical didactic and bedside sessions
- Small-group learning experiences
- Problem-based learning sessions
- Seminars
- Journal club leadership
- One-on-one teaching sessions
- Editorial assistance offered to students preparing presentations
- Supervision and advising of students, trainees, and other faculty members
- Preparation and administration of board examinations
- Participation as evaluator for Observed Structured Clinical Examination (OSCE)
- Preparation and mentoring remediation sessions
- Membership on committees related to education

For each of these distinct educational endeavors, list where it took place and the type and date of the activity. Also include the type and number of learners and the number of contact hours. Refer readers to the appendix for appropriate support materials.

For example:

UNC School of Medicine: 2nd Year Preclinical Reproductive Biology Course

* January 27, 2011
Large-group lecture: "Medical Disorders in Pregnancy"
160 Students. Appendix: contains syllabus material and student lecture evaluation.

* January 27, 2011 and February 2, 2011

Small-group problem-based learning: "3rd Trimester Bleeding: evaluation and management." I wrote this problem and was a group facilitator for a group of ten students. Appendix: contains problem and scores on end-of-course examination for questions related to this learning topic relative to other topics.

Extramural teaching activities:

- Visiting professorships
- Invited lectures and educational presentations at regional or national meetings
- Preparation and administration of board examinations
- Public service activities oriented to education, such as the development of patient education materials

For each of these extramural activities, list the organization for which the teaching event was held, the specific activity, the instructional methodology (i.e., lecture, clinical rounds, or seminar), and the date of the activity. Refer readers to the appendix for appropriate support materials. For example:

Board Examiner for the General Obstetrics and Gynecology Oral Boards Dallas, TX 2008-2011

Visiting Professor for the Obstetrics and Gynecology Resident Research Program

UNC School of Medicine, Chapel Hill, NC

June 2011

Activity: Part of panel of judges for six resident research presentations and gave keynote lecture entitled "Building a Research Center" to the house staff, faculty, and families of the graduating residents.

Assessments of your teaching. Teaching performance is evaluated in a wide variety of ways. In this section, include student evaluations, peer evaluations, departmental reviews, and any other evaluations of your teaching efforts. For your departmental evaluations, be sure to include a brief discussion of the basis for the evaluations and how they were done (i.e., criteria, method, and names of evaluators).

You may also include solicited or unsolicited letters from students, peers, course directors, and educational committee chairs. As Kuhn points out, such letters can "document excellence in teaching from a variety of sources and have been used successfully, among other materials, for purposes of promotion" (Kuhn 2004).

Awards for teaching and medical education. This section of the teaching portfolio may include awards for lecture presentations, selections as a board examiner, recognition by residents and medical students for excellence in teaching, and any other honors related to your educational activities.

Activities undertaken to improve your teaching. List workshops, courses, or professional meetings (including those sponsored by APGO) you have attended to improve your teaching. Also cite self-instructional educational activities you have participated in (such as an online course in developing educational Web sites) and include in your portfolio's appendix a bibliography of books, journal articles, and other materials you have read on teaching and learning.

Teaching innovations you have initiated. List new courses, lectures, distance-learning modules, teaching videos, instructional Web sites, and other innovative teaching materials that you have developed. Include examples of these materials in your portfolio's appendix.

Conclusion

If compiling a CV and a teaching portfolio sounds like a daunting task—it is! But you'll find the effort well worth the trouble. Both documents are essential ways for you to describe yourself to others on your journey to success in academic medicine. They should be versatile, accurate, up-to-date, and sufficiently polished so as to allow your accomplishments to shine in their best light. In addition, the creation of these documents compels you to spend time examining your career and your accomplishments. Each one, therefore, also serves as a useful self-assessment tool.

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Suggested Reading

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Sample Curriculum Vitae

Julia Jones, M.D.

Associate Professor of Obstetrics and Gynecology Curriculum Vitae

Personal Information

Business Address:	Department of Obstetrics and Gynecology State University Building A Middleton, NY 98765-4321 USA
Office: Fax: E-mail:	(555) 222-3333 (555) 222-3334 Lectures@anywhere.edu
Home Address:	1234 Any Street Middleton NY 98765-4322 USA
Land Line: Cell: Legal Residence:	(555) 333-1234 (555) 333-5678 USA
Education 1999–2003	Residency Department of Obstetrics and Gynecology State University Middleton, NY
1995–1999	Medical School Smith School of Medicine Northton, NY
1991–1995	College BA in Education (<i>cum laude</i>) City University Easton, NY
Appointments 2010–present	Associate Professor Department of Obstetrics and Gynecology State University Middleton, NY
2007–present	Director of Medical Education State University Middleton, NY

Julia Jones, M.D.	Curriculum Vitae 12/11				
2003–2007	Assistant Professor Department of Obstetrics and Gynecology State University Middleton, NY				
2002–2003	Chief Resident Department of Obstetrics and Gynecology State University Middleton, NY				
Certification/Licens Diplomate, American State Medical Licens	sure n Board of Obstetrics and Gynecology se (#86-1111) 2004				
Professional Membe <i>Memberships</i> Fellow, American Co Association of Profes	erships and Activities ongress of Obstetricians and Gynecologists ssors of Gynecology and Obstetrics				
State and National A	ctivities				
2010–present	Board Examiner American Board of Obstetrics and Gynecology				
2010-present	Education Commission American Congress of Obstetricians and Gynecologists (ACOG)				
2006–2009	ACOG Committee on Patient Education				
2004-present	Editorial Consultant Obstetrics and Gynecology				
2004–2007	New York State Obstetrics and Gynecological Society Perinatal Statistics Committee				
State School of Medi	cine Committees				
2009–2010	Search Committee for Pediatric Chair				
2006-present	Committee on Quality Assurance				
2005-present	Women's Program Planning Committee				
2003-present	Curriculum Review Committee for Preclinical Education				

Julia Jones, M.D.	Curriculum Vitae 12/11	Page 3
Honors and Awards		
2010	APGO Teaching Award	
2003, 2005	State School of Medicine Junior Faculty Teaching Award	
Research Activities		
Grant Application Sub "Date Violence Principal Inves Sent to: Depar Funds Request	omitted and Pending e Among High School Students: Prevalence and Severity" stigator: Julia Jones, M.D. tment of Education, Middleton, NY ted: \$50,000 (over two years)	
Grant Application Fur "Emergency D Study of As Principal Inves Funding Level Funding Source	nded, 2001–2003 Department Evaluation of Women with Right Lower Quadrant Pain: Random ssignment to Surgical Versus Gynecological Evaluation" stigators: Julia Jones, M.D. and Bard Parker, M.D. I: \$100,000 (over three years) ce: Apex Pharmaceutical Co. ducation	nized
Selected Publication	List (* denotes peer-reviewed publications)	
1. *Jones J , Parker B, Settl Turf Bat 2007;	. Right lower quadrant pain in women: an emergency department conundrum; 2:123–126.	m. <i>J of</i>

- 2. *Jones J, Medical Student A. Does a problem-based learning course prepare preclinical students for learning processes in clerkships? *State Medical Student Research Journal* 2010; 4:1–5.
- 3. *First Author B, **Jones J**. Domestic violence: teaching gynecology residents to detect battering. *Educ J* 2011; 5:34–36.

Abstracts and Research Presentations

"Right Lower Quadrant Pain in Women: Diagnostic Accuracy of History, Physical Examination, and Laboratory Studies" (with Bard Parker). Clinical Medical Conference, Skittown, NY. February 2001.

"Asking Tough Questions: Adding Universal Screening for Domestic Violence to the First Prenatal Visit." Educational Conference, Scubaville Centerville, Logan, WA. March 2002.

Educational Activities

See attached Teaching Portfolio.

TEACHING PORTFOLIO

Julia Jones, M.D.

I. TEACHING PHILOSOPHY

My first assumption about teaching is that learners wish to learn. I also assume that the students will have an accurate idea of their own knowledge base and learning goals. My role in the process of teaching clinical medicine is to facilitate the learners' construction of their own knowledge. This has evolved over the past few years from one in which I provided the bricks, mortar, and plan, and all the student had to do was show up. Now, I'm there more as a facilitator and an opportunity-enhancer, not as subcontractor, architect, and inspector.

My experience with problem-based learning taught me the importance of providing a nudge or push to help the students help themselves. It has become clear to me that my role is not only in information transfer, but also in serving as a role model for what a physician does with that information. It is important to let the learners hear the stories of their teachers—how we deal with the daunting tasks of taking care of patients, keeping up with the information explosion, and maintaining our own humanity and sense of humor.

II. TEACHING ACTIVITIES

A. Medical Student Education

1. Problem-based learning facilitator: 2008–2009; 2009–2010. PBL course for eight second-year medical students meeting 18 times during the academic year. Extensive written comments provided and discussed with each student. Administered and graded written examinations.

2. Academic advisor for eight State University medical students (four freshmen and four sophomore students).

3. Preceptor for community health project for second-year student. The goals were to identify existing programs on a military base for couples experiencing domestic violence and to establish protocols for healthcare providers on base. I helped the student design the instrument used in developing clinical protocols and debriefed and evaluated her at the end of the project (May 2010).

4. Research mentor for fourth-year student's project on the incidence of domestic violence among women requesting elective pregnancy termination. I assisted her in developing a research question, designing the study, and analyzing the results. Her work was presented at State University Medical Student Research Day (February 2011) and is being prepared for publication.

5. Clinical teaching: Six weeks/year as the attending physician in Labor and Delivery. Responsibilities included supervision and instruction of third-year clerks and fourth-year students on Maternal-Fetal Medicine elective.

Teaching Portfolio 12/11

B. Resident Education

1. Clinical Teaching

a. Inpatient obstetrical attending physician six weeks/year with responsibilities for resident education and supervision for inpatients.

b. Ultrasound education. Supervised obstetrical and radiology residents during rotations on the OB ultrasound unit. Outlined the rotation, developed a teaching notebook and supervised at least 40 percent of their work in the unit. I submitted appropriate evaluations to the residency coordinator. In addition, I assisted the residents in developing their own U.S. teaching conferences.

2. Research Mentor

a. I collaborated with a fourth-year resident on her research on domestic violence experience in women attending an STD clinic. I helped her develop the research question, meet human research committee requirements, and supervised the implementation of her project. Her paper was presented at State University Ob-Gyn Resident Research Day, Summer 2007.

C. Continuing Medical Education

1. Lectures/seminars given for CME 2009-2010

a. First Trimester Sonography. Fetal Echocardiography. Smith School of Medicine Alumni Weekend. August 2002.

- b. Domestic Violence: How to Recognize and Assist.
 - i. State University Student Health Service Providers. Spring 2009.
 - ii. Danville Medical Staff Meeting. Spring 2009.
 - iii. Nurse Practitioners Spring Symposium. Middleton. Spring 2009.
- c. Fetal Echocardiography. Pediatric Surgery Grand Rounds. New York, Summer 2010.
- d. Perinatal Grieving: Roles and Considerations for Clinicians. Kaiser in Middleton. Winter 2010.
- 2. Mini-fellowship in Maternal-Fetal Medicine, Co-Director. Spring 2011.

a. Month-long, 70-contact-hour CME program for obstetrical care providers providing hands-on ultrasound education and didactic Ob education.

D. Program Development

Resident education program in obstetric ultrasound—designed and implemented educational program in diagnostic obstetric ultrasound. Includes pre-test, learning objectives, hands-on instructions, practical post-test, and assessment of progress. As part of this program, I review 40 percent of the scans performed by residents and provide written and verbal feedback and documentation regarding the residents' scanning technique and interpretation.

E. Recognition and Awards

Included on list of physicians at State University cited by graduating medical students as role models for their development as a physician. Summer 2010.

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F. Educational Committee Work

American Board of Obstetrics and Gynecology. New Associate Board Examiner, Winter 2011.

American College of Obstetricians and Gynecologists. Committee on Patient Education. Three-year term ending 2010.

Curriculum Review: Evaluations. State University School of Medicine. 2008–2009.

G. Continuing Medical Education on Medical Education

Attended Faculty Development Workshop sponsored by the Association of Professors of Gynecology and Obstetrics (APGO). Winter 2010.

Attended a course called "The Internet: Developing Hypertext Programs for Educational Purposes," offered through State Medical School's Medical Library. Fall 2010.

H. Statement of Goals

My goals over the next two years are to expand my ultrasound teaching and to incorporate computer technology in a greater way into the educational process. As part of this objective, I am planning to develop a self-directed learning program utilizing State University's large collection of tapes of obstetrical scans. These will be annotated and prepared for use by a variety of learners. I also hope to develop learning units utilizing hypertext technology and the Web for clinical teaching.

CHAPTER EIGHT

Faculty Promotion and Tenure Systems

Lee A. Learman, MD, PhD

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Intellectual liberty, financial security, and recognition of scholarly work—the principles that now serve as the foundation of our academic institutions—were not always cherished ideals. Well into the twentieth century, these principles were challenged, and their eventual adoption was largely accomplished through the development of academic tenure systems. Today, some scholars still consider tenure to be crucial to preserving intellectual freedom. Critics call the system outmoded and counterproductive to academic progress in these times of healthcare and higher education reforms. Contemporary systems recognize a broad array of scholarship and scholarly work and support the retention and advancement of diverse faculty members who carry out the education, research, clinical, and community missions of medical schools in the United States.

Understanding how the school and department value and reward (1) teaching, (2) collaborative and independent research, (3) local and national service, and (4) community activities is critical to effectively advancing an academic career. Criteria and names of academic tracks for faculty appointment and promotion vary from school to school. An institution's criteria for appointment and promotion are indicators of the value the institution places in scholarly activity and service. The aim of this chapter is to guide the reader through the academic promotion and tenure (P and T) process by providing historical perspective, common criteria for different types of promotional tracks, and suggestions for how to successfully navigate the academic system.

The Development of Promotion and Tenure Systems

The tenure system developed in response to the struggle between religious dogma, political positions, and intellectual freedom in the seventeenth and eighteenth centuries. America's first colleges were founded by religious organizations for the purpose of teaching young men sound doctrine (according to the school's denomination).

Leaders of America's first colleges were usually forced to resign their positions if they wrote or spoke against doctrine. For example, the first president of Harvard University resigned over his differences with the institution

regarding the theology of baptism, and one of Yale University's presidents lost his position at that Congregational college after he changed denominations. Other leaders faced threats from differing political agendas such as beliefs on slavery and Darwinian theory. Threats to academic freedom continued into the twentieth century when benefactors of educational institutions sometimes attempted to influence instruction and appointment of officers. By mid-century, there were attempts to silence faculty who spoke publicly on political issues, with McCarthyism being the most notable example.

Throughout the nineteenth and early twentieth centuries, American professors studying in Europe imported new ideas of intellectual freedom. English and French sources called for the protection of civil liberties. Germany offered models of tenured professorships, which allowed professors to lecture and publish without fear of political reprisal. The German influence also helped transform medical faculty from part-time practicing physicians to full-time academic faculty.

In 1915, the American Association of University Professors (AAUP) was formed by 867 professors representing 60 different institutions. Its mission was to ensure intellectual freedom by protecting job tenure. AAUP statements articulated the responsibility of professors to communicate their views for the benefit of society, not for the governing board of a university. Between 1952 and 1959, four cases challenging academic freedom reached the U.S. Supreme Court. Academic freedom was upheld in all, and thus began to be recognized as a substantive and procedural right. This meant that professors who were challenged by dismissal were entitled to due process.

The Development of Full-Time Medical Faculties

In 1914, The Johns Hopkins University School of Medicine became the first U.S. medical school to convert to a system of full-time salaried faculty whose income from private practice returned to the institution (Bryan 2002). Prior to this change, the faculty consisted of men who earned the bulk of their incomes largely from medical practice and consultation. For example, Sir William Osler, one of the original four members of The Johns Hopkins University School of Medicine's faculty and physician-in-chief at the Johns Hopkins Hospital, supplemented his \$5,000 annual salary with \$35,000 in consultation fees and royalties before leaving for Oxford University in 1905.

The change to the "full-time plan," which had been strongly opposed by Osler, was engineered primarily by pathologist William Welch and anatomist Franklin Mall, Johns Hopkins faculty members. Welch and Mall were convinced that medical and scientific knowledge were most effectively advanced under the German model of full-time tenured faculty. Their arguments were strengthened with educator Abraham Flexner's famous report in 1910 about the poor state of most North American medical schools and the need for reform (Flexner 1910). With the support of a \$1.2 million grant from John D. Rockefeller, Welch and Mall persuaded Johns Hopkins to make the transition to the full-time plan. During the next few years, the Rockefeller Foundation spent \$8 million to support other universities' conversions to full-time plans.

Conversion to the full-time plan brought faculty routinely into the medical education system, an uncommon occurrence before Flexner's 1910 report. The conversion also brought clinical faculty under the governance and protections of the universities—including the tenure system. More than two decades ago, the historian W.B. Fye concluded that Welch and his colleagues "would be dismayed to see the growing pressure felt by many so-called

full-time faculty members to generate income from clinical activities as they would recognize the threat this poses to clinical research—the pursuit they sought to encourage by introducing the full-time system" (Fry 1991). Since then pressure on medical school faculty has only intensified. In response, academic centers are taking a serious look at how scholarly activity is valued and rewarded. Policies and practices are changing to recognize diverse approaches to scholarship and flexibility in pathways to advance in academic rank.

Academic Tracks in Medical Schools

The nature of academic tracks in medical schools today reflects both historical origins and contemporary roles and responsibilities of medical school faculty. In the past, faculty were hired either into research tracks potentially leading to tenure, or into clinical tracks that did not lead to tenure. Tracks for appointment and promotion of faculty members in medical schools now range from schools with single tracks, both tenure and non-tenure, to those with as many as eight choices of tracks for faculty working in different mission areas and with different foci on scholarship and service (Coleman 2011). Thus, it is essential for each faculty member to be familiar with the terms of appointment and advancement for his or her own school.

Faculty Career Tracks

The progression of promotional steps from instructor or assistant professor to associate and then full professor is fairly consistent across medical schools. However, the pathways for promotion are often categorized according to the focus of the mission and the emphasis on scholarship and service for each faculty member, resulting in a plethora of descriptive titles. Researchers may be appointed to a tenure track with expectations of promotion in seven years; or they may initiate faculty activity with a non-tenure research track appointment to allow for several years of building focus and grant activity before switching to tenure track. Faculty with primary responsibilities for patient care and teaching are usually appointed to a clinical track; those with a focus on clinical care and research may be assigned to a clinical-research track or a formal tenure track. Faculty who focus on education may find themselves on a clinical track, with expectations of quality teaching and patient care, or on a clinician-educator track, with expectations of educational innovation and research. Any of these might be tenure eligible depending upon the tracks for promotion established by university and medical school policies. Many schools use modified titles, such as clinical associate professor, to refer to faculty on non-tenure tracks.

The first faculty appointment is likely to be at the rank of instructor or assistant professor. Some medical schools have a policy of appointing new faculty members at instructor rank prior to specialty board certification. The process of advancement to assistant professor is then triggered by notice of board certification. Needless to say, the discussion of that first appointment—the track, the eligibility for tenure, and the expectations for performance—is one of the most important discussions of a young academic physician's career.

Promotion

Academic promotions occur as a series of advanced titles and increasing professional recognition, from instructor to assistant professor to associate professor and, finally, to full professor. (These stages are shown on the Academic Ladder illustration on page 127.) Each step in advancement reflects increasing expertise and productivity in an

academic field, and generally takes five to seven years. Promotion to associate professor acknowledges local and regional recognition of expertise, whereas promotion to full professor suggests a national or international reputation. For each step, an institutional promotions committee requires evidence in the form of a current academic curriculum vitae (CV), letters of evaluation of scholarly activities from senior faculty external to the department, and summaries of achievement from the candidate and the department chair.

Candidates' portfolios are judged for excellence in their field within at least one of the three mission areas research, education, or service—and evidence of satisfactory performance in the other two areas. Scholarship is generally defined by the quality and quantity of research resulting in peer-reviewed publication as well as the ability to garner extramural support for research. Other scholarly activities—such as clinical innovations and system improvements, teaching and educational improvements—are important to document in terms of peer review, dissemination, impact, and importance. More schools now allow tenure candidates to cite evidence of excellent scholarly achievements in education or service (Simpson 2007, Grigsby 2011), and an increasing number expect teaching portfolios to be presented for promotion of educators.

Faculty should plan on taking five to seven years to produce and document scholarly activity sufficiently for promotion from assistant to associate professor, and they should expect a similar length of time for promotion to full professor. The year just prior to application for promotion customarily is devoted to preparing documentation of scholarship and reputation. These documents move through a hierarchy of reviewers, from the department to the school to the university and finally to the board or provost for final approval. The promotion becomes effective in the academic year following notice of the decision.

For faculty with significant educational duties and responsibilities, maintaining a complete and well-documented teaching portfolio is especially important. The number of medical schools that use teaching portfolios as part of the promotion process has increased by more than 400 percent from the early 1990s to the present (Simpson 2004). The process of creating and maintaining a teaching portfolio is described in chapter 7, "Documenting Your Career: The Curriculum Vitae and Teaching Portfolio." The use of teaching portfolios can greatly assist faculty seeking promotion in tracks requiring documentation of teaching excellence (Baldwin 2011).

Maintaining a complete, well-documented, and up-to-date teaching portfolio, as well as curriculum vitae, is essential to your career.

For faculty who are appointed in a tenure track to a school with a traditional "up-or-out" policy, if tenure is not granted within the school's specified time limit (traditionally seven years) the faculty member must seek a position elsewhere or seek a non-tenured appointment with revised duties in the same institution. Some schools allow extension of the tenure clock, an additional one or two years, either automatically in cases of personal leave or upon request. There is no requirement of continued advancement from associate to full professor for tenured faculty, but there are other potential advantages of doing so. These include recognition of national expertise

Advancing Up the Academic Ladder

While there are many terms identifying tracks and faculty affiliations (e.g., full-time, part-time, adjunct, and clinical), the rungs to the ladder of promotion are fairly consistent. It is your responsibility to know your institution's definitions, qualifications, and spacing of steps.

Professor. Recognizes national or international contributions. Requires documentation of review of the work of others and letters of support from experts in your field verifying your level of expertise.

Associate professor. Recognizes significant achievements in your field and accomplishments known at a regional or limited national level. May be linked to approval of tenure.

Assistant professor. Recognizes achievement in your growing field of expertise. It implies recognition of accomplishments at a local level, that is, in your academic community.

Instructor. Typically an initial faculty appointment. Depending on the institution, this appointment may or may not initiate the tenure clock.

from colleagues and professional societies, ability to negotiate a similar rank when moving to a new institution, and in some cases negotiating a higher base salary. In many institutions, letters of evaluation for promotion beyond associate professor are accepted only from full professor faculty. In these cases holding the most senior rank allows continued participation in the mentoring and sponsorship of more junior faculty—and subsequent celebration in their achievement. For clinical faculty who are not appointed in a tenure track there is generally no requirement of promotion; they may remain instructors or assistant professors as long as they remain productive and valued contributors to the school's mission.

Tenure Track

Tenured faculty members are protected from losing their position except in cases of for-cause dismissal or if an institution experiences a dire financial exigency. At some institutions, tenure carries with it a guarantee of salary, although typically only a base salary or the academic component of salary is assured. Needless to say, in an institution that guarantees salary for tenured faculty and awards tenure automatically with promotion to associate professor, that promotional step and the individual's productivity are going to be carefully reviewed.

Promotional timelines and requirements vary by institution, so it is important for each faculty member to be aware of the standards of the track to which he or she is appointed.

The 2008 Association of American Medical Colleges (AAMC) Faculty Personnel Policies Survey Report of 126 medical schools shows that, although all but seven medical schools have tenure tracks for promotion, medical schools are offering tenure to a smaller proportion of faculty than ten years ago. The proportion of medical school faculty at the assistant professor level or above in tenure tracks has markedly declined during the past three decades, from 59.6 percent in 1984 (60.7 percent of men, 52.2 percent of women) in 1984 to 33 percent in 2008 (35.6 percent of men, 27.3 percent of women) (AAMC August 2010).

Following are other trends in P and T policies at medical schools:

- Instead of guaranteeing tenured faculty a full salary, medical schools are defining the tenure guarantee in a variety of more limited ways, such as a base salary equaling a percentage of average salaries for that specialty and rank. Additional salary is expected to be earned through activities such as reimbursed clinical service for physician faculty, or grants and contracts for research faculty.
- There are fewer medical schools with tenure systems that continue to follow the sevenyear pre-tenure probationary period endorsed by the AAUP. Schools are extending the probationary period and introducing stop-the-clock measures in response to a call for more flexible policies. In 2008, nearly half of the 126 institutions accredited by the Liaison Committee on Medical Education (LCME) offered a probationary period of eight years or longer. Over three-quarters had a tenure-clock-stopping policy, with the most common factor being the birth or adoption of a child (Bunton 2011).
- As appointments to tenure-eligible tracks diminish and salary is unlinked from the track, institutions are less likely to release faculty on the basis of traditional scholarly merits alone. By 2002, less than half of medical schools with tenure systems had up-or-out systems, compared with more than 80 percent of the schools in 1994 (Liu 2004). Some institutions allow faculty who are denied tenure to reapply for it at a later date.

Part-Time, Non-Salaried (Volunteer) Faculty

With the growth of the clinical enterprises of medical schools, the increase in ambulatory teaching of medical students and residents, and the broadening of curricula beyond traditional medical subjects, a wide range of teachers from different fields of study have been recruited as volunteer teachers and offered adjunct faculty appointments. These appointments come with no salary from the institution, but these volunteer faculty often may advance through rank based on their contributions through teaching and research. Such appointments are typically offered to physicians who are primarily in private clinical practice, researchers from the private sector, nurses and allied health practitioners, and non-medical professionals. Physicians and professionals with doctoral degrees are increasingly recognized through clinical appointments with promotion opportunities. Other rewards for contributing to teaching and research may include invitations to departmental teaching functions, university library privileges, Internet access to medical school information, and occasionally nominal funding.

Enhancing Faculty Diversity

AAMC data tracking first-time assistant and associate professors from 1967 to 1997 confirms a persistent discrepancy in promotion rates between men and women, and between majority and minority populations (AAMC May 2010). The representation of women faculty has increased from 15 percent in 1978 to 35 percent in 2010. In 2010, 19 percent of all full professors were women; they made up 15 percent of all women faculty, with little change over the past decade. In 2010, only 4 to 5 percent of all medical school faculty members self-identified as Black/African American or Native American/Hawaiian, with little change over the past decade. Another 4 to 5 percent self-identify as having Hispanic ethnicity (AAMC 2009–2010).

A variety of factors may explain the differences in promotional rates and retention between women and men faculty at medical schools. These factors include a perceived lack of role models and mentors, a lack of representation in important professional networks, and decreased resources (including federal grants) to support work.

What can be done to address these obstacles? Institutional leaders are working to implement policies to increase flexibility in work arrangements and time to advance in rank (Bristol 2008) as well as to build internal programs for mentoring and career development programs. Likewise, researchers and policy makers are working to understand discrepancies in institutional and faculty values placed on work and family (Levine 2011). Individuals can build a network of a variety of mentors who will not only provide advice but also will serve as sponsors for identifying opportunities for leadership visibility and advancement opportunities (Ibarra 2010).

Professional development programs on campus and externally can enhance skills, expand knowledge of career opportunities, and strengthen professional networks. Some of these programs are described in chapter 10, "Putting

Women and minority faculty should build a network of advisors, mentors, and sponsors, and they should work to maintain and grow these networks over time. It All Together: Personal Strategies for Advancing Your Career." Some organizations, including the AAMC, offer services that are specifically designed to assist women and minority groups. Several schools have created advisory groups and offices for faculty diversity and equity. The dean's office or the office of faculty affairs should be aware of local and national resources.

Counsel for the Young Faculty Member

With such a variety of academic appointments available, how do you choose the best one for you? An iterative cycle of achievement, reflection, mentorship, and goal-setting will serve you well irrespective of your academic track.

- Negotiate initial appointments to allow for flexibility in promotional track after two or three years. It is difficult to predict the most personally rewarding balance of activities for career advancement immediately after completing residency or fellowship. If the option is available to you, you may wish to accept an initial non-tenure track appointment as an instructor or assistant clinical professor and consider switching tracks subsequently. The initial couple of years can be focused on gaining clinical autonomy, fulfilling board certification requirements, and building academic skills in education, research, or administration. This initial period would be followed by an opportunity to align the academic track to your desired balance of work and career objectives.
- Clarify how your compensation is linked to the academic and clinical portions of your work. Also clarify whether any part of your compensation is promised to you as part of your academic appointment, whether or not it is called "tenure." Identify what circumstances would lead to a change in that compensation, such as years of service, promotion, or the acceptance of additional academic responsibility.
- Take time to reflect upon your personal goals and determine where you'd like the first five to ten years of your career to lead. These steps are thoroughly discussed in chapters 1 and 4, "Advancing in Academics: A 4-D Approach" and "Measuring Your Performance." Review your institution's criteria for advancement long before you come up for promotion. In fact, now is a good time to look it up on the school's Web site, review it, and bookmark it!
- Review your career plans with your division director, department chair, and mentors one or two times annually. Confirm that there is agreement regarding your aspirations and expectations of performance.
- Create a system to record achievements. Prior to each meeting with your supervisor, assess your progress, update your CV, and prepare any other documentation (such as a teaching portfolio) that highlights your accomplishments.
- Build a network of professional colleagues, especially mentors and advisors. Senior associates often view it as an honor to assist in the professional development of younger faculty members. For more on this topic, see chapter 3, "Academic Mentors—Finding One and Being One."

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CHAPTER NINE

Rewarding Excellence: Systems for Motivating and Recognizing Medical Faculty Achievements

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While the path to a medical degree is the same for most physicians, the motivation for pursuing that degree varies according to the individual. As an academic physician, you were most likely driven by a desire to generate and pass on knowledge and to pursue a scholarly lifestyle. This chapter will describe the various forms of scholarship, the motivation for each, and means by which achievement in those forms may be recognized.

You may have followed your needs and interests to this point with the expectation that the benefits would accrue equally for your teaching, research, and clinical efforts. Unfortunately, that is not always the case. Greater emphasis traditionally has been given to activities other than teaching in the academic setting, such as publishing, research, and clinical service. This chapter takes the view that teaching is undervalued relative to other academic accomplishments and deserves greater recognition. At the end of this chapter, there are several examples of how some medical schools have sought to correct this imbalance by creating or implementing systems that recognize and reward excellent teachers. When you seek out or negotiate for a certain position, be sure to ask enough questions to fully understand the institution's priorities and recognition for teaching, research, and clinical efforts.

The Origins of Motivation

Psychological research demonstrates that people are internally motivated and that they seek both intrinsic and extrinsic rewards. Researchers have identified 14 different sources of motivation, beyond the basic physiological needs (Van Fleet 2002):

- 1. Sense of personal power and mastery over others
- 2. Sense of pride and importance
- 3. Financial security and success

- 4. Reassurance of self-worth and recognition of efforts
- 5. Peer approval and acceptance
- 6. Desire to win, to excel, to be the best
- 7. Sense of belonging to either a place or a group
- 8. Opportunity for creative expression
- 9. Accomplishment of something worthwhile
- 10. New experiences
- 11. Sense of individual liberty and freedom
- 12. Sense of self-esteem, dignity, and self-respect
- 13. Experience of love in all its forms
- 14. Emotional security

As an academic physician, you may have found that you have traded some of the greater financial gains attainable in the private sector for other benefits on this list—those derived from academic scholarship and activities. There are different forms of scholarship, however, and the rewards tend to be different for each.

Scholarship and Its Development Within the Medical Disciplines

In 1627, the English philosopher Francis Bacon offered early insight into the various forms of scholarship when he described a method to gain and propagate knowledge. In the system he described, scientists of equal value would work cooperatively at different tasks (Bacon 1914). Some would collect facts; some would study the facts to draw useful information from them; some would perform experiments to gain new knowledge; and some would report the knowledge and educate others about it.

In the United States, formal medical education began in 1765 when graduates of the University of Edinburgh, Scotland, founded the University of Pennsylvania (Thier 1992). Proprietary medical schools proliferated thereafter, with widely varied standards and courses of instruction. However due to the lack of standardization and oversight, scholarly standards declined until the 1870s, when reform at Harvard University, the University of Pennsylvania, and the University of Michigan introduced structure and supervision into clinical education.

In 1914, a \$1.2 million endowment from the Rockefeller General Education Board inaugurated the first clinical full-time medical school faculty system at The Johns Hopkins University School of Medicine (Bryan 2002). A discussion of how these historic events featured in the development of tenure appears in chapter 8, "Faculty Promotion and Tenure Systems." The controversy generated by this reorganization, even as it was being contemplated, led in 1905 to the resignation from Johns Hopkins of Sir William Osler, who accepted the position of chair of medicine at Oxford University. Osler had grown tired of his hectic life of teaching, writing, and consulting in Baltimore. He also feared that the move to a full-time faculty system might encourage "the evolution

throughout the country of a set of clinical prigs, the boundary of whose horizon would be the laboratory, and whose only human interest was research" (Chesney 1963). Indeed, the intent of the Rockefeller endowment was to free physicians from clinical practice demands and to reward medical research; any benefits for medical student education and teaching were secondary.

After World War II, academics was infused with financial resources—primarily federal funds for biomedical research and medical insurance for clinical practice. Again, however, these resources were for the most part directed toward strengthening research and clinical practice, and teaching activities remained secondary.

Scholarship Defined

In 1993, Michael B. Jacobs, M.D., of Stanford University Medical Center, reiterated the various forms of scholarship that had been described by Bacon more than 350 years earlier (Jacobs 1993). According to Jacobs, the definition of scholarship should include the following four distinct areas:

- 1. The scholarship of discovery, or "vertical scholarship." This represents the traditional hallmark of academic medicine—original research into the basic science or clinical aspects of medicine, along with the publication of results.
- 2. *The scholarship of integration, or "horizontal scholarship."* This type of scholarship takes previously discovered information and makes connections across or within disciplines, bringing new insights to bear on original research. The scholarship of integration is similar to the scholarship of discovery, but it reflects our ability and need to draw connections between the research (our own and others') that has gone before, thus laying the groundwork for clinical application.

Ernest L. Boyer, in his seminal work *Scholarship Reconsidered: Priorities of the Professoriate*, defines the scholarship of integration as "making connections across the disciplines, placing the specialties in larger context, illuminating data in a revealing way, often educating non-specialists, too" (Boyer 1990). Horizontal scholarship requires the faculty member to have an "interdisciplinary understanding." It may include basic, clinical, or educational research.

This book is a good example of the scholarship of integration. It combines original thought with previous research and offers practical guidelines for faculty development. Other endeavors might include the completion and publication of subject reviews, editorials, and chapters on areas of expertise.

- **3.** *The scholarship of application, or clinical practice.* This category of scholarship represents the scientific practice of clinical medicine. Its usefulness lies in creating bridges between theory or previously acquired knowledge and the clinical experience of caring for patients.
- 4. The scholarship of teaching. This scholarly pursuit consists of communicating knowledge and inspiring students. It can include didactic lessons in the traditional lecture hall as well as teaching in small-group settings, discussions with or about patients on rounds, or demonstrations of technical skills in the operating room. The knowledge that is transferred can be factual, philosophical, or practical in nature. This form of scholarship most directly influences the future, and the mark of scholarly expertise in this area most often is reflected in the level of motivation and ultimately the accomplishments of your students.

Your intrinsic needs, interests, and skills will draw you to these different forms of scholarship. Your motivation for pursuing one over another may differ significantly from that of your departmental peers. You may choose to pursue the scholarship of discovery because of your need for creative thought and expression, your desire to be recognized for your work, and your search to answer questions in your field of interest, for example. Or you may be driven to pursue the scholarship of integration or application because of your need to serve others, to relieve suffering, and to achieve tangible results. Teaching affords new experiences, creative expression, peer approval and acceptance, a sense of accomplishment, and even a sense of personal power.

Unequal Rewards

To varying degrees, the pursuit of any of the forms of scholarship mentioned above is triggered by most or all of the 14 human motivators described earlier. However, the results have become unequally rewarded as medical education has developed in the United States.

One overriding motivator that you almost certainly feel is the value your dean and chair place on various scholarly activities. A recent survey showed faculty expect to earn and receive the respect of both—but more so from the chair—for their accomplishments (June 2011). This respect from the chair includes showing appreciation for the faculty's professional abilities, considering them an asset to the department, respecting their opinion, responding to them in a timely manner, and understanding their scholarly interests.

In most medical schools, perceptions and misperceptions abound about the criteria for promotion. Evidence suggests that there is some validity to the perception by many medical school faculty that research is the single most important activity for promotion. A study at one major medical school, for example, found that when compared with basic research faculty, the adjusted odds of being at a higher rank were 85 percent lower for academic clinicians and 69 percent lower for teacher-clinicians (Thomas 2004).

It is critical that you understand the links between the various forms of scholarship and the rewards offered by your division head, chair, and dean. To enhance your understanding of what constitutes an "important" activity in your department, the chair should periodically review with you the guidelines for promotion, reappointment, and tenure (if it exists). The chair should also meet with you to establish and evaluate your career plans. In these review sessions, you should reveal your motivations, expectations, and career interests. As a new faculty member, you should be encouraged to pursue research and other scholarly activities in which you can sustain a track record and be recognized by your peers.

More than 20 years ago, Harris Associates conducted a survey of all U.S. allopathic medical schools, interviewing deans, associate deans, chairs, and faculty members to determine support for various changes in medical education (Cantor 1991). Of the 1,364 interviewees, more than 98 percent supported the development of a system to evaluate and reward teaching excellence. Sixty percent of the administrators in the survey (deans, associate deans, and department chairs) felt that teaching was the most important criterion in evaluating the performance of faculty, compared to research (22 percent) and patient care (8 percent).

To address the oft-repeated concern of assessing quality in the non-research areas of scholarship such as teaching, Glassick summarized a Carnegie survey from 1994. He identified six common themes, or "standards" by which

all types of scholarship should be judged: the presence of clear goals, adequate preparation, appropriate methods, outstanding results, effective communication, and a reflective critique (Glassick 2000). He also noted how elusive a precise definition of the scholarship of teaching can be.

In spite of attempts to better define and measure the quality in teaching, the stated enthusiasm and support of administrators for the scholarship of teaching has not always translated into sufficient reward or recognition to sustain motivation on a day-to-day basis. The promotion guidelines for clinician-educators at medical schools usually state that excellence in clinical care and teaching are not enough for promotion to the ranks of associate and full professor. To reach those ranks, clinician-educators are also expected to have developed a national reputation in their field—a reputation that usually requires publication of scholarly work (Levinson 2000). This discrepancy between the importance assigned to teaching, and the motivation and rewards it offers, raises the question: What do faculty members want or need to encourage them to strive for excellence in teaching?

For answers, we can turn to the results of a survey reflecting the views of 348 faculty members at the Wake Forest University School of Medicine. When asked about the desirability of a teaching incentives program, nearly 70 percent favored its implementation (Hoban 1994). Junior faculty (instructors and assistant professors) tended to more frequently rate the importance of teaching incentives higher than associate or full professors did. Three categories of desired incentives were noted: personal gain, recognition/awards, and funds to improve teaching.

Because motivation is internal, incentives must be linked directly and commensurately with your teaching in order to keep your motivation high. Disparities in the value and rewards placed on research, clinical activities, and teaching in a medical academic setting can threaten this link, especially if you are seeking advancement based primarily on teaching and patient care performance. The weight placed on your teaching may not match that of research grants, publications, and even clinical medicine. Your department chair must ensure that there is tangible advancement (promotion or tenure, or both) to be gained from the scholarship of teaching in order for you to feel as motivated to teach as you are to pursue the scholarship of discovery (research) and of application (clinical practice). It would also help if there were more day-to-day recognition.

It's critical that you understand what constitutes an "important" activity in your department.

Evaluation and Rewards for Various Forms of Scholarship

There are systems for evaluating all forms of scholarship. For some types of scholarship, the rewards tend to flow automatically; for others, additional effort may be required to ensure that all accomplishments are properly recognized and rewarded.

Clinical Excellence

Clinical excellence, or the scholarship of application, traditionally has brought with it financial rewards. Physicians who are clinically competent, personable, and caring are generally the busiest clinicians and also the highest paid. The outstanding clinician is capable of focusing on the whole patient, not just the diseased part, and is an expert at developing rapport with patients and their families. When acting as a consultant, the physician supports the referring physician to enhance patient care.

Financial reward is not an absolute indicator of clinical excellence, however. Documentation of this scholarship of application, which can be used in the promotion and tenure (P and T) process, also comes from the department chair, other faculty members, students, house staff and nurses, prior residents, and referring physicians.

Some institutions have reported their methods of evaluating faculty clinical excellence in a quantitative way. Carey and colleagues have described their system at the University of Virginia School of Medicine (Carey 1993). There, a physician is considered to be a clinical leader when he or she is recognized as an authority in a particular area; is repeatedly invited to instruct other colleagues by consultation, lectures, or seminars; and is known across the clinical services as the person to consult for difficult or unusual cases. Using subjective input from faculty peers and colleagues, physicians who demonstrate this level of scholarship may have clinical excellence used as a criterion for P and T. That excellence may be demonstrated in several different ways—that is, by publishing articles describing new developments in clinical medicine, by developing new patient care or education programs, or by spearheading innovative methods of healthcare delivery.

As Levinson reported in 2000, problems of adequate recognition for the clinician-educator remain a formidable challenge, requiring our continued attention (Levinson 2000). A recent article by Grigsby and Thorndyke reminds us that clinical excellence does not necessarily equate with the scholarship of application (Grigsby 2011). Rather, scholarship requires the translation of clinical practice into creative products that can be subjected to peer review and disseminated. A clinician's portfolio, similar to an education portfolio, is used in some institutions for this purpose. At Johns Hopkins University Bayview Medical Center, the Miller-Coulson Academy of Clinical Excellence defines, measures, and rewards clinical excellence (Wright 2010).

Research Productivity

Research productivity is measurable and easily tracked, and typically the rewards for the scholarship of discovery are built into its pursuit in the form of grant funding, publication of results, national recognition, and consistent promotions. Your department's national reputation often rests on the ability of you and other faculty to publish in peer-reviewed journals. Grants bring status and resources to your institution, and if you are repeatedly successful in securing large grants, you may accrue considerable personal power.

Excellence in research also has many well-established landmarks outside of your institution. National recognition comes from grants, publications, presentations, review boards, committee appointments, and special committee assignments. Your curriculum vitae (CV) should document these accomplishments and may serve as the evaluation methodology. Some of the same rewards are associated with the scholarship of integration if it results in similar publications and recognition of expertise.

Measurement Approaches to Teaching Contributions

Some medical institutions have attempted to quantify teaching, research, and clinical productivity into relative value units (RVUs). This approach assigns weights to each of these activities to put them on par with each other. As a result, it offers several benefits to teaching: it validates teaching as a priority, rewards it with time and money, and, perhaps most importantly, it is explicit in recognizing teaching contributions (Milad 1999, Rouan 1999).

Despite the progress in calibrating teaching contributions at various institutions, no universally accepted methodology exists for the recognition of teaching effort (Bekes 2000). The Association of American Medical Colleges (AAMC) has developed an RVU metric system for measuring medical school faculty effort. Their approach incorporates quantitative and qualitative measures of faculty activity and has the ability to measure and value the distribution of faculty effort relative to a school's education mission. The AAMC proposes that institutional leaders use this metric at their schools to gather the critical information they need to evaluate and reward faculty performance in a manner consistent with their schools mission-based management strategies (Nutter 2000).

A review of measurement systems that quantify faculty productivity noted several problems in the systems' adaptation, however. These include faculty skepticism, a misguided search for one perfect metric, over-complexity, and the expectation that the metric system will erase ambiguity regarding faculty teaching contributions (Mallon 2002).

The metric systems for teaching show promise, but their adaptation by medical schools will likely be incremental and individualistic, sometimes by department only. For example, a model developed in a department of surgery that provides financial incentives for academic performance has been well accepted and has encouraged a datadriven discussion of the department's mission and activities (Williams 2003).

Teaching

Teaching and the scholarship of integration (to the extent that it is reflected in teaching) enjoy less prominence and visibility as measures of academic success. Despite the fact that these are considered important scholarly activities, the documentation of teaching excellence and the need to develop ways of rewarding it are common themes among most medical schools today. One method—the clinician-educator track for academic advancement—was reported to be present in 66 of 115 medical schools in 1997. At individual medical schools, the numbers of clinician-educators have risen also. For example, at the University of Pennsylvania, only 10 percent of faculty were "clinician-educators" in 1978 compared to 58 percent in 1998 (Barchi 2000).

Ways of Evaluating Excellence in Teaching

Three questions generally arise when considering a system to reward teaching excellence:

- 1. Who should be responsible for documenting this accomplishment?
- 2. How can it be documented?
- 3. What are the appropriate awards?

Irby described the procedures and results of a peer-reviewed system for teaching at the University of Washington School of Medicine (Irby 1983). Individual departments devised their own evaluation methods to be used when faculty members were being considered for promotion. Candidates were identified in sufficient time for adequate peer review, which consisted of one of three different approaches.

The most common and least time-consuming approach used the departmental promotions committees to evaluate faculty teaching. Documentation consisted of material supplied by the individual candidate, as well as peer observations.

The second system involved appointing an ad hoc peer review committee for each faculty member being considered for promotion. Data from students, residents, and peer evaluations were used to assess the individual's teaching scholarship. Committee time with this method ranged from five to nine hours.

The third and most time-consuming option was to appoint a standing committee in the department to periodically review all faculty, not just those under consideration for promotion. Faculty members, medical students, and graduate students on the committee sat in on two to three hours of lectures and reviewed course material to aid in the preparation of their recommendations. The total time invested by each committee after generating a report detailing the candidate's teaching activities and skills was approximately 25 hours.

Siddiqui outlines 12 tips for undertaking peer observation of teaching (POT) in medical education. He and his colleagues feel POT provides rich qualitative evidence for teachers, which is a much-improved technique over simply relying on closed-ended student evaluations alone (Siddiqui 2007).

Donnelly and Albanese had previously documented the reliability and validity of using medical students to evaluate clinical instruction (Donnelly 1989, Albanese 1991). Both authors addressed common concerns about this method, including the fear that such evaluations may prove to be more of a "popularity contest" for faculty than a true reflection of teaching excellence. Rothman, at the University of Toronto, has described a combined approach using both student evaluation and peer review (e.g., visits to scheduled lectures and interviews with students and teaching peers) (Rothman 1989). Rothman also recommends the use of a teaching dossier or portfolio.

While peer and student evaluations are the generally accepted sources of data on the scholarly teaching activities of academicians, instruments are being developed to lend more precision to the results. One of these, the Relative Value Scale in Teaching, was developed at Cornell University Medical Center (Bardes 1995). This system weighs all teaching activities according to labor intensity, preparation time, level of responsibility, and educational value—and it allows comparison among diverse teaching activities. This scale, while useful in quantifying the value of teaching among diverse teaching activities, does not allow measurement of the outcomes of the quantified teaching. (For a discussion of other approaches to measuring teaching contributions, see the box on page 144.)

The teaching dossier, or portfolio, is now widely used to provide evidence of the scholarship of teaching for purposes of promotion. Between 1992 and 2003, the number of U.S. medical schools using teaching portfolios to determine faculty promotion increased by at least 400 percent (Simpson 2004). The categories of activities and accomplishments that you're expected to document in your portfolio have remained fairly constant over the years.

They include teaching and student assessment activities; administrative, organizational, developmental, and research activities related to medical education; participation in national and international organizations and conferences related to medical education research and development; and honors and awards related to teaching, educational development, and research. Supporting documentation includes summaries of student and peer evaluations, course outlines, educational research publications, and invitations to teach at other institutions (Rothman 1989). Many schools also require a personal or philosophy of teaching statement (Simpson 2004). (For further information about teaching portfolios, see chapter 7, "Documenting Your Career: The Curriculum Vitae and Teaching Portfolio.")

Simpson and colleagues reviewed five education activity categories suitable for evaluation, to help determine the appropriateness of academic promotion: teaching, curriculum development, advising and mentoring, educational leadership and administration, and learner assessment (Simpson 2007). They recommend using the quantity, quality, and engagement of the educational community as the criteria by which these categories may be judged.

Incentives

Finally, we come to the question of incentives. Once scholarship in teaching has been documented, what are appropriate rewards? Three categories of rewards have been identified as desirable by a Wake Forest University School of Medicine faculty survey: (1) personal gain, (2) funds to improve teaching, and (3) recognition or awards.

Funds to improve teaching. Reiser has described the necessity that medical schools dedicate funds to teaching, particularly as income from other department activities dwindles (Reiser 1995). He noted that medical schools had often pooled funds from clinical practice, educational funding sources, and research grants before allocating them. He predicted that these funds would one day be kept separate and linked to the entities for which they were originally intended.

Regarding how medical funds could be used to reward faculty achievements, Reiser suggested using one-half of available resources for traditional individual merit pay, and the other half for "departmental merit." This approach would link compensation to the performance of the group, with all members receiving equal amounts. Under this system, a department's efforts would be judged as a whole in the scholarly areas of research, teaching, and clinical service. Not only would research and teaching be weighed equally, but, according to the author, this approach would encourage shared faculty responsibility and equalize the effort required by members of the department to fulfill the scholarly missions of the medical school.

Williams described, and noted positive impact from, a financial incentive program that quantitated all student and resident teaching activities in a department of general surgery. Among the outcomes were favorable faculty acceptance and enhanced clinical and academic productivity (Williams 2003). **Recognition and awards.** A second incentive for teaching excellence is recognition and awards. Promotion traditionally has been used in this way, but most medical schools are also putting into place teaching award programs that supply varying amounts of additional encouragement and incentives. You should become familiar with the awards at your institution and the criteria for each. If no awards exist, you may wish to encourage the implementation of awards modeled after those described in this chapter.

In one such program, at Toronto General Hospital, hospital-wide awards were given in recognition of (1) program development (developing an innovative, original, practical, and relevant teaching program within the hospital) and (2) educational administration (time spent administering a particular medical educational program within the hospital, its quality, and its impact) (Posluns 1990). A third award was given to a physician, nurse, social worker, trainee, or other person who contributed in an extraordinary way to medical education throughout his or her career at the hospital. Awardees were selected after tallying evaluations from trainees and departmental administrators.

Additional awards were given at the departmental level to recognize the best undergraduate and postgraduate physician teachers, allied health professionals, and house staff/fellows. Trainees and departmental administrators submitted anonymous evaluation forms, using a scale of one to five to evaluate knowledge and skill, values and attitudes, instruction, and teacher-trainee relationship. By assigning 75 percent of the total score to the trainees' mean score, and 25 percent to the administrators', the three top teachers in undergraduate and postgraduate teaching in the department were identified. Trainee nomination forms alone were used to select the allied health professional and house staff/fellow awards. The winners and nominees were invited to a hospital-wide event where the awards were given in the presence of students, house staff, and faculty. Winners received plaques and monetary awards. Runners-up were announced and given a congratulatory letter.

The best teaching award systems recognize several faculty members' excellence and are widely publicized so the value of teaching is understood.

At the University of California at San Francisco, another awards program for teaching excellence was devised to recognize as wide a group of teachers as possible, not simply the "best" teacher (Gastel 1991). It recognized excellent teaching in the first and second year of medical school, but it could be modified for use by departments during the third and fourth years as well.

This system depended on students completing forms stating why their nominee deserved recognition. Committees of volunteer students from each class then evaluated candidates for awards for small-group teaching, direction of a course or major unit, and lecture series. Ultimately, selection was based on the number of nominations and the content of the students' written statements. All nominees received letters of recognition that included excerpts from students' statements. At the end of the academic year, a school-funded reception was held to honor

the teaching award recipients and other nominees. Students, award recipients and nominees, course directors, chairs, and deans were invited. Students organized the reception and presented the award recipients with framed certificates. Photographs of the recipients were displayed in a showcase near the dean's office.

Yet another widely used award system has been developed by APGO (see below).

APGO Teaching Award

An Excellence in Teaching Award was established by the Association of Professors of Gynecology and Obstetrics (APGO) in 1992 to recognize outstanding teachers at participating departments throughout the United States and Canada.

On a yearly basis, each department has the opportunity to honor one faculty member who has demonstrated excellence in teaching with an emphasis on undergraduate medical education. The recipient receives a medal and national recognition.

The selection of individuals and the presentation of the award is left up to individual departments, with the recommendation (but not requirement) that recipients may receive the award only once from the same institution.

For more information, visit the APGO Web site at www.apgo.org or contact APGO at (410) 451-9560.

Conclusion

Motivation is an internal force, and your needs, interests, and skills will help you decide which forms of scholarship to pursue in the academic medical setting. Despite growing recognition that the different forms of scholarship should be rewarded equally, you will find that, in most institutions, the scholarship of discovery, or research, receives more in the way of attention and rewards than do the other forms of scholarship (e.g., application, integration, and teaching). In part, this is due to the fact that research is the most easily quantifiable form of scholarship, as measured by grants and publications, and therefore research has been the traditional steppingstone to promotion. Reward systems for the scholarship of application (clinical excellence) include financial remuneration, membership in elite scholastic academies, and a sense of worthwhile accomplishment.

The scholarship of teaching, while much more difficult to evaluate and quantify, is beginning to be rewarded by a number of innovative awards programs developed at major academic centers. Many of these have been described in this chapter. If your institution wishes to demonstrate a firm commitment to teaching excellence, as well as to research and clinical efforts, it should go beyond special awards. This type of scholarship should also be advanced through promotion and the appointment of teachers to standing committees and special task forces of the chair and dean. This will ensure that a greater regard for teaching is incorporated into program development, the budget process, and P and T decisions.

Perhaps the most important reason of all to strive for excellence in teaching was noted by the American writer and historian Henry Adams in his famous autobiography: "A teacher affects eternity; he can never tell where his influence stops" (Adams 1918).

A Cross-Comparison of Systems for Rewarding Good Teachers

Although the literature describing systems of rewarding good medical student teaching is sparse, the systems at three departments of obstetrics and gynecology (Brown Medical School, the University of Florida College of Medicine, and the University of Oklahoma Health Sciences Center) were reviewed in the mid-1990s (Ernest 1995). All three systems had the following characteristics in common.

- 1. The awards were broad based so that several excellent teachers, not just one, could be recognized each year.
- 2. The awards were tangible, consisting of cash, certificates or pins, or other indicators of teaching excellence, and were genuinely valued by the recipients.
- 3. Evaluation forms were simple to use so trainees, peers, and administrators could easily and effectively evaluate teachers.
- 4. The awards were widely publicized so that students understood the value of teaching in the department.
- 5. Excellent teachers were actively sought and consistently promoted as a means of motivating others interested in the scholarship of teaching.

Three Systems to Reward Teaching: A Comparison					
Institution	Brown University	University of Florida	University of Oklahoma		
Raters	Full-time faculty, residents, students	Students			
Number of Items Rated	Five (faculty); single overall rating (residents); single overall rating (students)	Four	Single overall rating		
Criteria for Award	All with mean > 4.5	All with mean $> 3.0^*$	All with mean \geq 3.5 after each rotation annually		
Type of Award	Pin	Certificate, pin, cash award	Letter from clerkship director (end of rotation) or certificate (annual)		
Other Awards	Top three clinical faculty: "Preceptor of Year"; full-time faculty with highest score: "Teacher of Year"	One "Teacher of Year" award	Certificate from chair for consistent score ≥ 3.5 after 3, 5, 10 years		
Is Quantity of Teaching Measured	Yes	Yes	Consistency recorded		

* Must have evaluated and been evaluated by > 50% of students.

Source: Ernest JM, Kellner KR, Thurnau G, Metheny W. Rewarding medical student teaching. *Obstet Gynecol*. 1995;86(5):853–857.
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C H A P T E R T E N

Putting It All Together: Personal Strategies for Advancing Your Career

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It seems reasonable to expect that hard work will lead to promotion, tenure, and greater income. While most academicians who earn these rewards are hard workers, it is not always true that effort is rewarded. The work you do must be productive, both for you and for your department.

It is not enough to hope that the responsibilities you assume and the efforts you expend will be noticed and appreciated. Keep in mind that the person who is ultimately in charge of your career development is you. It is not your departmental chair, your division director, or the dean—it is you. Once you have accepted this fact, you can then determine what you truly want and how you will achieve it.

An analogy may be helpful here. Consider the difference between, say, a passive medical student and a motivated athlete. Passive students fear being asked questions they may not be able to answer, and they are reluctant to reveal their own lack of knowledge by asking questions themselves. They may avoid contact with their professors. Motivated athletes, in contrast, seek their coaches' attention. They expect to make mistakes and be corrected, knowing that this can only improve their performance. They look to their coaches to help them achieve their goals. To be ignored is heartbreaking.

Try seeing yourself as an athlete, and your senior faculty, division directors, and chair as your coaches—people who can help you succeed and achieve what you want from your career.

You are in charge of your own career development. Accept that role and pursue your goals.

Explore Your Environment

Most of us work within a bureaucratic system: a division within a department in a school of medicine that is part of a university. It is to your advantage to familiarize yourself with the system you are in and learn about each level.

For example, what is the history of your university? Is it old and distinguished? What traditions does it have (both good and bad) that defy change? What is its mission? Ask the same questions about your school of medicine. To help you answer these questions, talk with your peers and senior colleagues. Such discussions offer excellent opportunities for improving your understanding of your institution's culture.

Look even more closely at your department, since that is where you actually work. How is the administration structured? Are there distinct divisions? Are the divisions autonomous, or is the chair involved in their day-to-day decisions? Who makes most of the important decisions? If it is the chair, what is the role of the division directors? If the division directors make the decisions, what is the role of the chair? Who really knows what is going on?

Note those colleagues who are recognized as leaders. What has earned them such recognition? Are they innovators, or are they quietly effective workers who have gained prominence by advancing the ideas of others? Again, if you aren't sure of the answers to these questions, align yourself with colleagues who are recognized leaders.

Who are the leaders in your department, and how did they achieve that recognition? You can learn by their examples.

Understand your chair's interests and management style. In your department, what does the chair really do? Is he or she clearly and frequently visible within the department? Is the chair engaged in patient care to any significant degree, or completely occupied by administrative matters? Does the chair devote a great deal of time to national activities or other responsibilities away from the department? What seems to please him or her? Academic accomplishment? Financial productivity? Teaching? The answers to these questions are important to you and your career development. When department chairs are minimally engaged in patient care activities and teaching, they are less likely to recognize the contributions of students, faculty, and others in these areas.

If your chair is absent much of the time, keep him or her aware of what you are doing on the home front. Sending your chair a periodic note recapping your activities and efforts is a good way to stay visible. Don't, however, send long e-mails or reports. Brief updates are far more effective.

Remember the athlete analogy. You want to be someone who is noticed, not overlooked. Even if your chair is seldom around, he or she can still help to advance your career. For example, if your chair's time away is spent on national activities, perhaps he or she can open doors for you to national committees and other opportunities.

Do your best to understand the lay of the land. The more you know about your environment, how it works, and who the key players are, the better positioned you will be to move forward.

Keep a Personal Professional Inventory

It's essential to maintain a current, detailed curriculum vitae (CV) and teaching portfolio. Both are discussed in chapter 7, "Documenting Your Career: The Curriculum Vitae and Teaching Portfolio." To help evaluate the skills you are developing and the experience you are gaining, you should also keep a personal record of your activities. A simple file folder (either an electronic or a paper folder) with a title "My Career" is a convenient means to place notes, correspondence, program booklets, names/dates of presentations, and the like. Periodically fold this information into your CV.

Inventory your professional responsibilities and the time it takes to conduct them. The results may surprise you!

Make frequent notes to yourself describing the various activities that are involved with any particular responsibility. Be sure to include the amount of time you devote to each activity. Let's say that you serve as clerkship director for the third-year student rotations through obstetrics and gynecology. To your chair or other faculty members, especially those outside your department, that position entails administrative responsibilities. But is that all that you do as clerkship director? Or do you also counsel students, give oral examinations, grade written examinations, and/or prepare and give lectures? Do you spend considerable time and effort working with other faculty regarding the teaching aspects of the program? And, finally, do you have regular meetings with other clerkship directors? List all of these activities and the amount of time you devote to each one. The breadth of your responsibility, and the total time expenditure, may surprise you.

Here is another example: Let's assume that you spend one and a half days per week in the clinic. To assess the individual components of this patient care responsibility, ask yourself these questions: How many patients do you see per clinic? How much time in a half-day clinic is spent actually seeing patients? How much preliminary work and follow-up are required (i.e., collecting records from the chart, writing letters to referring physicians, recording notes in the electronic medical record [EMR], etc.)? What is the system for reporting laboratory results and other reports back to the patient? Is this system efficient, or is it time-consuming for you? If your office/hospital has EMR, how are you incorporating it into your routine?

Gathering and recording this type of information will give you an accurate, in-depth picture of your professional activities—beyond what a title and broad list of responsibilities might imply. It may also be helpful to you in documenting various types of responsibilities to superiors, if needed.

Once you have reviewed each of your roles as a faculty member, you will be prepared to take steps that might improve your effectiveness and your situation. Start by studying the individual components of your job to look for efficiencies.

For example, if you are spending a lot of time doing paperwork for the student rotations, can you delegate this task to someone else? This would be a legitimate question to ask at a performance review (see chapter 4, "Measuring

Your Performance"). Or you may find that you are spending considerably more time on a particular responsibility than you previously thought. If so, ask yourself whether this is worthwhile for your career. If you love the student rotations, for instance, and you have the time to devote to them, it is not necessary to cut back your involvement only for the sake of efficiency. However, if you get credit for spending 10 percent of your time on a particular activity, when in reality you are spending 25 percent of your time there, some sort of correction is in order. By keeping track of the time and effort it takes to accomplish the activities related to any responsibility, you will be better positioned to lobby for the correction you desire.

A personal professional inventory also allows you to compare your activities and use of time with those of other individuals in your department, including (and preferably) those in positions of authority. Such an exercise can be valuable to you and your superiors even if other faculty do not record their time and effort in the same way. Your chief/chair may be impressed by your conscientiousness as well as by your contribution. This is one way to achieve some acknowledgment of your efforts.

Ultimately, faculty members who ignore scholarship begin to feel cheated, as if they have held down the fort while everyone else advanced their own careers.

Be a Scholar

Young faculty members who have just completed their residency programs tend to be most enthusiastic about clinical care and teaching, particularly if they graduated from the same institution where they are now on faculty. They may be very popular teachers because of their interests in sharing surgery, discussing patients, and the like. Often, these junior faculty members are not as engaged in active research as they should be. Demanding patient care schedules, unfamiliarity with the promotion process, lack of research mentoring, and other factors may contribute to minimal research productivity.

While the excitement of clinical care and teaching may sustain young faculty members for several years, the time comes when they notice that others are attracting a great deal of interest from students, residents, peers, and faculty administrators because of their research in various fields. Then, when the time comes for promotion and tenure (P and T) decisions, these young faculty members realize that there is little, if anything, listed in the publications section of their CV. Ultimately, they may begin to feel resentful, cheated, inadequate, or incapable. They may perceive themselves as having done the day-to-day work of patient care while others have ignored those tasks and advanced their careers through research.

To succeed in academic medicine, you must show evidence of scholarly achievement. Research is part of scholarship, but it is not the whole part. For the scholar, the pursuit of learning does not stop when training ends or the last patient is seen. There are many forms of scholarship that go beyond traditional clinical and basic science research; these are described in chapter 5, "Research and Grant Writing." Simply look around yourself to discover areas of interest related to clinical care or teaching that can provide opportunities for scholarly pursuit.

For example, there is ever-increasing attention to the costs of health care. An analysis of the value of individual aspects of patient care could easily be done in a clinical setting. Is the frequency with which particular tests are administered reasonable? Is there a more effective way to deliver a particular type of care? With respect to teaching, is there a better way to teach a particular aspect of our field? Could a clinical rotation be divided into two groups of students, each studying a particular field in a certain way, with their knowledge accumulation measured and compared at the end? Don't forget the fact that students could be recruited as subjects, but do keep in mind that educational research still requires approval (or exemption, as is often the case) by your local institutional review board.

There are multiple opportunities for scholarship and the pursuit of additional knowledge that do not require discovering a new drug, cytokine, or molecule. Many of these opportunities to engage in and disseminate your scholarly efforts can occur at your own institutions, and some can occur at national meetings, such as the annual APGO Faculty Development Seminar, and the Council on Resident Education in Obstetrics and Gynecology (CREOG)/APGO Annual Meeting held each spring. In addition, the APGO Academic Scholars and Leaders Program is a competitive program held each year that promotes medical education in women's health. Participation in and completion of this program is an excellent way to promote your value, including scholarship, in your institution.

Additional information about important national meetings, seminars, and conferences is provided on pages 153–154.

Assess New Responsibilities Before Accepting Them

Every faculty member eventually hears these words: "We'd like you to take on this new responsibility." When you hear them, you may think, "Here it comes. Something else to add to my already over-packed schedule!"

New responsibilities may also be new opportunities—but be wary of hallway conversations referring to them as such. Before you say yes, you need to obtain a thorough description of what will be expected of you. You may want to arrange a meeting specifically for that purpose.

Ask about the time involved. How many hours per week, month, or year will be required? If you take on this new responsibility, are there other less important activities you could abandon or hand over to someone else? If shuffling will be necessary, say so.

Ask about the term of your new assignment. Can you set some limitations? For example, can you offer to perform the activity for a year, after which you will reevaluate its impact on your other activities and your career development? Were the goals of this new activity met? This is an often forgotten but significant aspect of assuming a new responsibility.

Is it important to your career that the responsibility have a title? Keep in mind that a title is worthwhile only if it carries with it the authority to make relevant decisions on your own. What will be our outcome measures for

this new responsibility/activity? Without authority and outcome goals, you risk becoming the lightning rod for negative perceptions you may be powerless to fix, and you will lack the clout to make other changes that would strengthen the program. Anytime a title is offered to you, ask what authority accompanies it. Likewise, if you are given significant responsibility and authority, see that your new role is expressed in an appropriate title that will enhance your CV.

Resources are another relevant issue. If you are asked to do something that involves significant administrative work, will additional admin help be available? If you are asked to direct the teaching of endoscopic surgery, will the department reimburse you to attend a postgraduate course or to meet with clinical experts in that field so you can brush up on your knowledge and skills and compare current approaches to teaching?

It is while you are still discussing a potential new assignment that you have the most leverage for incorporating it into your career design and development. Do not leave any stone unturned! Ask for time to think it over. More questions will come up as you consider various aspects of the new responsibility being offered. Do not be afraid to request a few days to reach a decision.

As a last step, write your superior a letter outlining in detail your understanding of this new role. This will ensure that all will have the same perception of the responsibilities involved.

The preceding suggestions must be implemented with diplomacy and tact. If your superior asks you to assume a new responsibility, you are generally expected to do so. These are not invitations to a social event; this is business. Your goal is to carefully define the extent of the assignment and to make your superior aware of its impact on you personally, as well as to articulate its benefit to the department.

Outside commitments merit similar screening. One chair issued the following instructions to faculty about weighing requests to serve on committees or task forces or to take part in other activities: "Look at these activities in the light of their effect on your CV. If the new role will enhance your CV in any way, well and good. If there is a paper likely to come out of it, all the better. If it will merely be time-consuming, however, and will not help your CV, try to avoid it." That was good advice.

Meetings, Seminars, and Conferences

ASSOCIATION OF AMERICAN MEDICAL COLLEGES (AAMC)

- *AAMC Annual Meeting.* Described as "the nation's premier meeting for leaders in academic medicine," this event is sometimes likened to a Ringling Brothers circus. It offers workshops, large and small plenary sessions, research presentations, and educational exhibits. Held in late October or early November at varying sites. For more information: www.aamc.org/meetings.
- *The AAMC's Minority Faculty Career Development Seminar.* For junior faculty (senior fellows, instructors, and assistant professors) who are members of underrepresented minority groups and who aspire to attain positions of leadership in academic medicine. For more information: www.aamc.org/meetings.

• *The AAMC's Women Faculty Professional Development Seminars.* Two seminars, one for early career faculty members and one for mid-career faculty members, are held annually. Both are directed to a multidisciplinary audience and emphasize women's leadership skills and opportunities for advancement. Registration is limited, and often there is a waiting list for participation. For more information: www.aamc.org/meetings.

ASSOCIATION OF PROFESSORS OF GYNECOLOGY AND OBSTETRICS (APGO)

- *APGO Faculty Development Seminar.* Plenary and workshop sessions on educational methods and professional advancement for Ob-Gyn faculty members. Organized by APGO's Undergraduate Medical Education Committee, held yearly in January at varying sites. Enrollment is limited, and the event occasionally sells out. For more information: www.apgo.org/meetings.
- *APGO Scholars and Leaders Program.* A comprehensive educational curriculum designed to help Ob-Gyn professors teach women's health more effectively. The vigorous 15-month program requires attendance at four meetings: various days adjacent to the annual APGO Faculty Development Seminar, two CREOG and APGO Annual Meetings, and a freestanding meeting in late summer. Between meetings, scholars engage in assignments and projects. For more information: **www.apgo.org/meetings**. Type Scholars and Leaders Program in the search by topic window.
- *CREOG and APGO Annual Meeting.* A forum for Ob-Gyn residency and clerkship program directors, department chairs, deans, faculty interested in medical education, and administrators/coordinators of these programs. Generally held in early March at varying sites. For more information: www.apgo.org/meetings.

OTHER LEADERSHIP OPPORTUNITIES

- *Harvard Macy Institute's Program for Educators in the Health Professions.* Funded by a grant from the Josiah Macy Jr. Foundation, the Harvard Macy Institute is a collaborative effort of the Harvard Medical School, the Harvard Graduate School of Education, and the Harvard Business School. Their annual Program for Educators in the Health Professions (formerly the Program for Physician Educators) is aimed at physicians and others in the healthcare field who have a strong interest in teaching and learning the academic healthcare environment but have no advance training in education. Enrollment in the annual January event is limited, and candidates are selected on the basis of a written project description and a biosketch of educational activities. For more information: www.harvardmacy.org.
- *Executive Leadership in Academic Medicine (ELAM)*. Sponsored by Drexel University College of Medicine since 1995, this year-long program develops the professional and personal skills required to lead and manage in today's complex healthcare environment. Acceptance into ELAM is determined through an annual competitive selection process, in which approximately 54 candidates are chosen. For more information:www.drexelmed.edu/ Home/OtherPrograms/ExecutiveLeadershipinAcademicMedicine.aspx.

A title can become a liability when it is not accompanied by an appropriate degree of authority to make decisions.

Find a Mentor

Daniel Levinson, in his book *The Seasons of a Man's Life*, describes a mentor as a counselor, sponsor, developer of skills, guide, and exemplar (Levinson 1978). Many seasoned academicians point with pride and joy to the relationships they have had with both faculty who preceded them (their mentors) and those who followed them (their mentees) (Addison 1995).

The mentoring relationship is so important that this book devotes an entire chapter to the topic (see chapter 3, "Academic Mentors—Finding One and Being One"). A brief discussion about how mentoring can advance your career is also appropriate in this chapter.

Mentoring is not a contractual agreement. While the recent trend in academia is to promote mentor relationships by assigning newcomers to a faculty member, the most successful relationships evolve on their own. The connection and trust that characterize this type of relationship must be allowed to build over time.

You typically do not explicitly ask someone to serve as your mentor. Rather, you subtly encourage the relationship by engaging in frequent conversations, seeking out advice on important matters, and letting the individual know that you see him or her as a role model. As long as you stay in reasonably close proximity, the relationship may evolve.

Are there senior colleagues you respect and with whom you have a particularly close relationship? Were their goals at one time similar to your own? There is no rule stating that guidance must come from a single individual, and rarely does a person have just one mentor over the course of an entire career. It is also not necessary to be particularly close to your mentor socially. Fraternization is not necessary and could actually lessen the effectiveness of your working arrangement.

From time to time, your mentor may tell you about opportunities he or she thinks would fit with your career development. As your relationship develops further, your mentor might also give you thoughtful and candid advice on career decisions and other professional matters.

Mentors need not be at your own institution, or even in your specialty. For many years, I had my own professional "board of directors." This small group of senior faculty, from several different institutions, served me well; I was and continue to be most grateful and appreciative to them. I never mentioned the thoughts of one mentor to any of the others on my "board." Whenever I was presented with a major career opportunity, or a change in assignment in my present position, I could call on several of these more senior colleagues to provide confidential and honest

advice. Their guidance—in telling me what questions to ask, for example, or what might follow if I did or did not take a particular opportunity—really helped me learn about true "decision analysis." I expressed my genuine appreciation every time I contacted them, and I always felt that they enjoyed being asked to share their wisdom. I find it flattering now to be asked for such advice by those younger than I.

Just as having one or more mentors for yourself is extremely rewarding, it can be equally satisfying to serve in that role for someone else. Even if you are young and relatively inexperienced, you may be able to mentor a resident or medical student. What attracted you into your specialty, and into academic medicine, and can you share that decision-making process? Do you have a particular project that would mesh well with your protégé's background or interests? Look around for individuals with whom to share your personal insights and experiences, and make yourself available to them.

Open Channels of Communication

There is a lot of wisdom to the saying, "Out of sight, out of mind." To understand how decisions are made in academic medicine, you need to be in fairly close proximity to the decision-makers. This does not mean that you should be overly solicitous to your superiors. Rather, it requires that you remain tuned into and involved in key issues, whether mundane or "sexy."

No one likes surprises, and everyone likes to know what is going on. Therefore, keep those around you informed of your activities. Gain the support of key faculty members at large before attempting to implement changes. Share your plans with others, as this gives them the opportunity to know you better and understand your perspectives. As long as they listen to what you have to say, give it an honest appraisal, and clearly communicate their decisions and their own points of view, you can consider your interaction a success.

Profit from Change

Those who resist change will neither succeed nor excel. Our principles and our character are what needs to be held firmly, not old ways of thinking and behaving simply because "things have always been done that way."

Do not be afraid to create change on your own. By waiting, you risk seeming reactionary. Are there better ways to do your job? Don't wait for someone else to suggest them. Are there more efficient ways for others to perform their jobs?

Those with creative ideas will be welcomed by their superiors and justly rewarded (Kriegel 1991). There are many different ways to approach change. One is to first seek an endorsement for a new concept from your colleagues and superiors and then work out the details. For example, if you feel that several low-risk obstetric clinics could be combined into a single clinic, propose that concept to your division director or chair and wait for the reaction. If your superior thinks it is an idea worth pursuing, move on to the next step: assessing the practicality and feasibility of the idea. Consider the numbers of patients to be seen, the nursing personnel and space required, and so on. There is no reason to devote significant effort to the details of the project only to find out that there was some fundamental problem with the idea in the first place.

If you have what you think is an excellent idea, remember that colleagues may hesitate to "burst your bubble" of enthusiasm about it. Seek advice, especially from those who are known to be candid. It has been said that "a project not worth doing is not worth doing well."

Embracing opportunities for change can be another way to gain recognition for yourself or your department. If there is an ongoing program within your school that has never been adequately assessed, you might work to establish an evaluation system that could bring some deserved praise your way.

An illustration might be helpful here. At one institution, it was generally accepted that a particular clerkship had been the best in the school, or among the best, for many years. This fact was not appreciated by other department chairs, who were understandably reluctant to admit that their clerkships were not as stellar. Therefore, the clerkship director worked through the department chair and others to encourage the dean to establish a system for evaluating all clerkships. With the cooperation and approval of the dean of academic affairs, a comprehensive evaluation system was developed. At the end of every rotation, students completed a fairly extensive but uniform questionnaire. Sure enough, the Ob-Gyn clerkship in question was rated the highest according to an objectively scored rating system, and that department and clerkship director received the credit they were due. The resulting accolades, in addition to being a source of pride, were a legitimate advertisement for use in recruiting residents, fellows, and faculty members.

If you have a good team but no league, you sometimes must develop the league to have a chance for your team to win.

Put Yourself in Context

To have a positive impact on your career and your institution, you need to understand the system you are operating within and its various perspectives. Failure to understand the organizational structure of academic medicine and to appreciate points of view other than your own will lead to misunderstandings, polarization, ineffectiveness, and defeat.

Consider the issue of agreements or contracts between faculty members and department chairs, for example. Any successful negotiation or relationship must reflect the needs of both sides. If you want the chair to agree to provide 50 percent of your time for research, are you willing to guarantee six manuscripts published in peer-reviewed journals each year? Probably not. If you want to devote 40 percent of your time to teaching, are you willing to decrease your income to compensate for the revenue lost through your diminished involvement in clinical care? Again, probably not. (For more about negotiations, see chapter 2, "Negotiating the Terms of Your Employment.")

Young faculty members often feel that it is the duty of the chair to support research and teaching, while overlooking the fact that any decrease in clinical care also limits the funds available to support those activities. Similarly, while it may be your personal goal and responsibility to promote your own career, the goals of division chiefs and department heads tend to be much broader. Keep in mind that they may have 20, 30, or even 40 faculty members for whom to provide salaries, space, and support, not to mention many vital non-faculty employees.

The most successful academic leaders maintain high expectations for every activity; they equally face competing demands. If you do not get something you want from your superiors, it could be because they disagree with your request. However, it is just as likely that they simply lack the resources and wherewithal to go along with your ideas. Don't give up; instead, plan your next strategy accordingly while also paying significant attention to the real world in which we live.

Not infrequently, and particularly at the time of promotion or tenure review, a faculty member who lacks the requisite accomplishments will hold the division chief or the chair responsible for not supporting his or her individual efforts. Although the superior may not have been as supportive as one would have liked, shaping one's own career is primarily a personal responsibility. Taking control of your academic career is one that should be coordinated and embraced with awareness, knowledge, and enthusiasm.

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CONCLUSION

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Academic medicine continues to offer tremendous rewards.

This book has been written for our colleagues in academic medicine. Academic medicine is but one career path available to you, and certainly other directions—such as private practice—can also be very rewarding, challenging, and fulfilling. However, for those of us who contributed to this book, academic medicine has offered and continues to hold tremendous rewards. On a daily basis we are challenged by students and residents (many of whom are smarter than we are!), we have the opportunity to care for patients with the most complex medical problems, and we continually expand our scientific knowledge.

If your career path leads you in the same direction, we hope that you share our enthusiasm. And we hope that you have found (and will continue to find) this book helpful to you. Many chapters describe strategies that you, as an individual faculty member, can employ. Other chapters help you navigate academic terrain by giving you an understanding of the way things are and how you might change them for the better.

This book must end on the same point that has been emphasized throughout: You are in charge of your own development as a faculty member. Accept that role and pursue your goals. As the saying goes, "Others hold the lamp, but you must chop the wood."

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APPENDIX

A Timeline of Changes in Academic Medicine

1636	Harvard College (now Harvard University), the first institute of higher education in the United States, is founded.
1765	The first medical school in the United States is established at the University of Pennsylvania.
1913–1914	The Johns Hopkins University School of Medicine becomes the first medical school to convert to the "full-time plan," a system that gave professors of clinical medicine fixed salaries like other professors throughout a university.
1915	The American Association of University Professors (AAUP) is formed.
1950s	Academic freedom is established as a substantive right.
1960s	Medical schools and teaching hospitals grow in response to increased federal funding for Medicare and National Institutes of Health (NIH)-sponsored research.
1980s	A surge occurs in the growth of clinical faculty practice plans at medical schools, increasing the schools' revenue.
1990	Ernest Boyer's seminal Scholarship Reconsidered, which argues that teaching should be a cornerstone of academic scholarship, is published by the Carnegie Foundation.
1990s	Decreases in federal funding for research are followed by an unprecedented growth fueled by a doubling of NIH funding. The influence of managed care organizations and increased regulatory oversight results in reduced clinical income with increased costs to healthcare programs. This, in turn, decreases support to medical school academic programs.
2000s	Federal funding for research and graduate medical education levels off. Public schools experience reduced state funding, constricted endowments, and diminished funding for federally sponsored grants following the NIH doubling of early in this decade. Many schools expand their definitions of academic tracks to support scholarship in education and clinical care as well as basic research; a few begin adjusting expectations of full-time work and tenure limits.

2010s A Carnegie Foundation report calls for multiple reforms in medical education (Irby 2010). Economic recession threatens availability of research funding, state funds for medical education, and clinical revenues to cross-subsidize research and education. Medical schools further define expectations for scholarship in education, expand flexibility in tenure probationary periods, and pilot methods to recognize interdisciplinary and team science.

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BIOGRAPHIES



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Dr. Casey is an Associate Professor of Obstetrics and Gynecology at Mayo Clinic Medical School in Minnesota. She is an active member of APGO, having served as Program Chair of the Undergraduate Medical Education Committee since 2006, and was the 2004 and 2010 recipient of the APGO Excellence in Teaching Award. Dr. Casey has been an editorial board member of *Clinical Medicine: Reproductive Health* since 2007 and was recently elected to the APGO Board of Trustees.



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Dr. Herbert is a former Professor and Chair of the Department of Obstetrics and Gynecology at the University of Virginia. In his career at the University of North Carolina, Duke University, and University of Virginia, he served as a clerkship director, residency program director, fellowship director, and chair. He is an APGO Past-President and has held many other APGO leadership positions. Currently he serves as Chair of the APGO Academic Scholars and Leaders Program.



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Lee A. Learman, MD, PhD Clarence Ehrlich Professor and Chair Department of Obstetrics and Gynecology Indiana University School of Medicine

Dr. Learman is the Clarence Ehrlich Professor and Chair of the Department of Obstetrics and Gynecology at Indiana University School of Medicine. His past positions include Residency Program Director and Director of Curricular Affairs for Graduate Medical Education at UCSF. Dr. Learman is a past program chair of the CREOG & APGO Annual Meeting, and serves currently as CREOG Chair and on the faculty and advisory board of the APGO Academic Scholars and Leaders Program. He is also a member of the USMLE Step 2 Examination Committee and the ACGME Residency Review Committee for Obstetrics and Gynecology.



Diane Magrane, MD Professor, Department of Obstetrics and Gynecology Director, International Center for Executive Leadership Drexel University College of Medicine

Dr. Magrane is Professor of Obstetrics and Gynecology and Executive Director of the International Center for Executive Leadership at Drexel University College of Medicine. During her career she has severed in many academic roles including clerkship director, Associate Dean for Medical Education, Associate Vice President for Faculty Development and Leadership at the AAMC, and now the director of the national ELAM program for women in medicine, dentistry, and public health. She is a former president of APGO, past-chair of the APGO Undergraduate Medical Education Committee, and a founding member of the APGO Academic Scholars and Leaders Advisory Committee.



William Metheny, PhD Assistant Dean, Graduate Medical Education Graduate School of Medicine University of Tennessee, Knoxville

Dr. Metheny is currently Professor of Obstetrics and Gynecology and is the Assistant Dean of Graduate Medical Education at the Graduate School of Medicine, University of Tennessee Medical Center, Knoxville. Dr. Metheny has been a member of APGO since 1991 and has presented extensively at the APGO Faculty Development Seminars and at the CREOG & APGO Annual Meeting. He has served as a member and the Chair of the APGO Undergraduate Medical Education Committee. After completing his PhD at Michigan State University, Dr. Metheny served on the faculty at the Medical College of Georgia and at Brown University in the roles of clerkship director, assistant residency program director, DIO, and director of CME.



Bruce A. Meyer, MD, MBA Executive Vice-President for UT Southwestern Health System CEO, University Hospitals Executive Director, Faculty Practice Plan Professor, Department of Obstetrics and Gynecology UT Southwestern Medical Center

Dr. Meyer is the Executive Vice-President for Health System Affairs and University Hospital's CEO at UT Southwestern Medical Center. He has served as a Chair, Residency Program Director, Fellowship Director, and site Clerkship Director. Dr Meyer currently serves on the APGO Board of Trustees. He has presented at the APGO Faculty Development seminar for more than ten years and has served on the Development Committee and on the APGO Foundation Board.



Francis S. Nuthalapaty, MD Associate Professor of Clinical Obstetrics & Gynecology University of South Carolina School of Medicine – Greenville

Dr. Nuthalapaty is currently the Director of Undergraduate Medical Education for the Department of Obstetrics & Gynecology at the Greenville Hospital System University Medical System. He has been involved in a number of APGO activities, including serving as Director of the APGO Clerkship Director's School while a member of the APGO Undergraduate Medical Education Committee. He has been active in producing scholarship in both clinical obstetrics and education.



Maureen G. Phipps, MD, MPH Interim Chair, Department of Obstetrics & Gynecology Associate Professor of Obstetrics & Gynecology and Epidemiology Alpert Medical School of Brown University Women & Infants Hospital of Rhode Island

Dr. Phipps is currently the Interim Chair in the Department of Obstetrics and Gynecology at The Warren Alpert Medical School of Brown University and Women & Infants Hospital of Rhode Island. She has been a member of APGO since 2003 and was a selected participant in the Women's Health Education Office (WHEO) Retreat for Medical Student Objectives in Women's Health, "The Future of Women's Health: Performance Based Tools for Today's Medical Schools." Dr. Phipps is on the editorial board for the *American Journal of Obstetrics & Gynecology* and has chaired (2010–2012) the American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women.



Patrice M. Weiss, MD Chair, Carilion Clinic–Department of Ob/Gyn Professor, Virginia Tech Carilion School of Medicine Roanoke, Virginia

Dr. Weiss is currently Chair and Professor at the Carilion Clinic/Virginia Tech Carilion School of Medicine in Roanoke. She has experience as both a program director and clerkship director. Dr. Weiss is currently on the APGO Board of Directors and has lectured as several APGO Faculty Development seminars as a plenary speaker, breakout sessions, and breakfast roundtables.