

New Challenges and Paradigms for Mid-Career Faculty in Academic Medical Centers: Key Strategies for Success for Mid-Career Medical School Faculty

Thomas A. Golper* and Harold I. Feldman†

*Division of Nephrology and Hypertension, Vanderbilt University Medical Center, Nashville, Tennessee, and †Renal, Electrolyte and Hypertension Division, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania

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Success, like beauty, is difficult to define, but one knows it when one sees it. A reasonable definition is the achievement of satisfaction and happiness in one's profession, which then defers the definition to that of happiness and satisfaction. These will be dependent on the extent and directions of one's passion, the pursuit of which promotes satisfying productivity.

Physicians who choose to conduct their careers in an academic setting have a multitude of career models to pursue, representing varied mixes of effort devoted to clinical care, research, teaching, and administration. Not uncommonly, the particular blend of activities may evolve over time and there may be transition from one institution to another. Despite these variations, the mid-career faculty member of North American medical schools share many common experiences and challenges. Despite their track record of success within academic medical centers, mid-career faculty may also experience frustration or loss of direction. There are many reasons that this may occur. For example, the academic "honeymoon" is over, whereby forgiveness for the errors of inexperience or naiveté are long gone. Filling a niche within the institution brings stability, but may also engender the perception by the mid-career faculty member of being taken for granted. This may, in fact, be a misperception. In contrast to junior colleagues, the successful mid-career faculty member may no longer receive direct mentoring or institutional resources and may misinterpret this as abandonment. Contrary to this sentiment, supervisors of mid-career faculty members may see this evolution of institutional support as a discrete indication of success and the opportunity to redirect resources to those at an earlier stage in their careers. It is with these observations that we offer insights into maintaining and advancing a successful academic medical

career. These challenges are part of a developmental process that unfolds in response both to individual and setting-specific characteristics. This paper explores this process, organizes the themes that are encountered along most career development pathways, and offers suggestions to promote both success and satisfaction.

1. Maintaining and Diversifying Support

Career advancement most often will require extramural funding acquired only through substantial effort. The specific composition of support will differ across academic tracks. In most circumstances some success in acquiring competitive public funding is mandatory. Although this may not always be a necessity for success, it has ripple effects and is often a criterion judged by trainees as they chose their mentors. Although this clearly applies to the physician scientist, clinical educators at many institutions also benefit greatly from the successful acquisition of competitive public grant funding. The importance of this is recognized by our professional academic societies (for example the American Society of Nephrology, the National Kidney Foundation, the Polycystic Kidney Disease Foundation, among others) some of which offer courses to address strategies, and thus, will not be further discussed here. Rather, this discussion will focus on other funding sources also suited to mid-level faculty.

Pharmaceutical Industry

Industry-generated and sponsored research is greatly facilitated if a basic infrastructure (e.g. contracts office, business administration, clinical research space, research personnel, etc) is in place or readily available. Such fee-for-service research, in which company derived/monitored protocols are implemented at clinical centers, can generate income, but rarely leads to academic prominence. This research may be performed to generate revenue to support the infrastructure, which can be used to perform investigator-initiated research (discussed below). Often in this type of research, studies are performed to address marketing strategies rather than scientific questions.

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Correspondence: Dr. Thomas A. Golper, Division of Nephrology and Hypertension, S-3301 Medical Center North, Vanderbilt University Medical Center, 21st Avenue North, Nashville, Tennessee 37232. Phone: 615-343-2220; Fax: 614-322-8653; E-mail: thomas.golper@vanderbilt.edu

The sponsor owns the data with little benefit to the faculty member other than the acquisition of funds that can be used for subsequent independent activities. Occasionally, if the faculty member has a strong interest in the subject of investigation and plays a leadership role, then such research may contribute to credentials for career advancement required in many academic medical centers. Participation in Steering Committees is one such leadership activity that may also substantively affect the direction of this type of research. Apart from leadership opportunities, industry-funded studies may represent an opportunity to gain experience in trial design and networking with other investigators.

Industry-derived protocols are designed by the company, which also owns the data. Thus, the conduct and interpretation of these studies are likely to be influenced by the effect of the company's financial bottom line rather than by the pursuit of knowledge. As a consequence, a potential important downside of participating in this type of research activity is the perception that the faculty member is supporting marketing through their research, which can raise questions about possible conflicts of interest.

Beyond the limited recognition typically derived from this type of research, we strongly advise that care be taken to avoid the appearance of conflict of interest when seeking to publish research emanating from activities for which consulting fees have been paid by company sponsors. We offer the following recommendations: (1) when in doubt, seek counsel from academic supervisors who fully consider the commitments and restrictions inherent to an academic faculty position; and (2) do not rely on company sponsors to provide this counsel.

Investigator-initiated pharmaceutical company-funded research can be very rewarding academically. This type of pharmaceutical research brings much more benefit to the faculty member as long as total ownership of the intellectual property resides with the investigator. In addition, companies benefit from publications generated without their influencing the academic process, as the studies are much more credible, and therefore, influential. Such studies typically succeed when a track record exists with the relevant product or class of agents. They most typically succeed with research arms of companies rather than with marketing divisions. Investigator-initiated protocols will still be governed by detailed contracts that should be written in a fashion that protects the intellectual property of the academic scientist. Furthermore, it should be expected that funding covers the full investigative costs. This is a very important consideration because investigator-initiated studies may not be prioritized within companies commensurate with company-initiated projects, thereby creating pressure to accept inadequate budgets.

Other Industry

The foregoing discussion related to pharmaceutical companies relates, as well, to companies owning chains of dialysis facilities and/or manufacturing dialysis and dialysis-related equipment. Research supported by or in collaboration with these large dialysis organizations (LDOs) can be highly fruitful and mutually beneficial because of the opportunities for large-scale ob-

servational research and, at times, the development and implementation of clinical trials. Possible three-way relationships among academic medical centers, LDOs, and other industries, particularly Pharma, provide yet another model to fund and implement research not otherwise feasible. Such research relationships can often be brokered by a faculty member at an academic medical center to finance and conduct research that can leverage large and national administrative datasets or dialysis populations.

To get industry support for investigator-initiated research there must be a clear intersection between the industry's interest and that of the investigator. Intellectual property rights need appropriate bidirectional protection of which control should not be lost. Intellectual property is one of our most important products and highly influences the reputation of investigators. Companies are often very satisfied to have some access to research results before publication. Furthermore, the value of research is often enhanced when results are established independent of a company.

General Clinical Research Center

The general clinical research center (GCRC) is a resource for collaboration, mentoring, and funding and should be considered when seeking diversification of research support. Although there are policies that apply across institutions, unique local arrangements occur. For example, intramural support via the GCRC may be a recruitment incentive. Furthermore, in some circumstances an established disease-oriented basic scientist may be thrilled to work with junior colleagues in a clinical investigation. In addition, investigator-initiated research can be presented to the GCRC for partial support. Nationwide incorporation of GCRC into the new Clinical Translational Science Awards will undoubtedly provide additional opportunities for collaboration across the broad spectrum of translational research.

Philanthropy

Here we refer especially to local philanthropists and, particularly, those outside of the context of standard giving or foundations. A foundation may have announced grant cycles and topics. We are referring here to investigator initiation of a granting process that differs from the announcement. The philanthropists are approachable in this setting on the basis of the personal and institutional reputation of the investigator. A particularly effective approach is the collaborative initiative wherein several investigators from one institution jointly propose a project. Thus, it is important to get connected and stay connected with potential benefactors through activities such as community-based committees or projects, such as a fund-raising committee organized for the expansion of a hospital wing. As other examples, local National Kidney Foundation, American Heart Association, and Diabetes Foundation committees are populated by influential business leaders. We believe that implementing this strategy is something senior and mid-level faculty members should teach/mentor their junior colleagues. Although receipt of donations to support research activities should not be the motivation for these activities that bring

many nonmonetary rewards from community engagement, philanthropists often are pleased to find opportunities to provide financial support for research programs addressing relevant health issues. Fundraising in this manner can be particularly helpful for bridging and for small start-up projects and seeding larger, publicly funded research programs.

Again, using the above example, the National Kidney Foundation's local affiliate provides special opportunities and can effectively be addressed in a similar manner, as this can lead to national awareness bidirectionally benefiting both parties.

2. Coping with Funding Loss

All academic faculty members should develop strategies to reduce the possibility of losing grant funding. One key component of this strategy is diversification of support. Diversification can be accomplished through collaborations that should begin at an early stage of career development even while developing one's own independent scholarly activities. We advise that investigators should develop mixed portfolios not only with respect to content area, but also with respect to primary leadership *versus* collaborative research roles. In addition to diversifying sources of support, old collaborative relationships represent potential avenues for new initiatives that can replace those that have ended. The goodwill among collaborators becomes an important asset, one to nurture at all times.

3. Mentoring

Acquiring, managing, and maintaining good mentoring throughout the academic life cycle is a critical component of both success and satisfaction. As we mature in our careers and take on mentoring roles, the expectations from our own circle of mentors may change, but does not need to be diminished in value. Transitioning from being principally on the receiving end of mentoring to providing mentorship can be challenging. Sometimes, the first recognition of this can be the ordering of authors. Our advice is to initiate these discussions early and often.

Mentoring of junior faculty frequently overemphasizes independence in research to the detriment of the junior faculty member's career. This is particularly true at a time when much research necessitates a multifaceted approach using numerous areas of technical and scientific expertise. In our opinion the wise mid-level mentor should recognize this risk and encourage their junior colleagues to be independent in one area of research while collaborating in other areas with more experienced investigators.

Recognizing and supporting the needs of junior colleague's demands a new set of activities in which leadership of research and teaching activities, at times, are relinquished and opportunities to play roles on the local, regional, and national scene are passed along to others. While promoting the career development of others, mid-level faculty members face the challenge of continuing to develop in their own careers, addressing their evolving set of challenges. Among them is how to provide good mentorship. As faculty members move into mid-career, seeking mentoring about providing mentorship can be very useful. Beyond this, mentoring continues to represent an important

conduit to staying connected, which is equally relevant to the mid-level faculty member as they are being mentored or providing mentoring to junior colleagues. Learning the skills of getting and staying connected with an ever broadening circle of professionals and organizations is a central role of mentors. Open discussions about this goal are critical, so that the passing down of opportunities to become involved in national roles/committees is not inadvertently overlooked. Despite inexperience, we advise you to not underestimate your potential to function on the regional and national scene, to not wait to be "selected," and to proactively go after these roles and relationships, guided and assisted by your more senior colleagues to increase your visibility. Furthermore, this is often a central demand of successful career development. Tenure track physicians frequently need to demonstrate national reputations. Regional recognition may be sufficient for some other career models, but we advocate not limiting one's focus on the minimum needed for the career path. Connections with the broader renal community can be one of the very most rewarding aspects of our careers. Two extraordinary essays were recently published on this topic (1,2).

4. Working with Authority and Managing Conflict

In academic medicine settings, faculty members tacitly consent to be led by individuals in more senior positions of authority. These individuals may be one's mentor, division chief, department chair, dean, or chancellor on the academic side and/or the clinical management team on the clinical side. Our comments are applicable to either.

Most conflict derives from more than one source or individual and can often be avoided. Conflict is often a byproduct of failing to engage in effective communication necessary to create common missions. Dialogue equals bilateral and open authority in the end, but one has to get to that end by anticipating and navigating around conflicting agendas, thereby pre-empting the problem. This is achieved by practicing direct communication, without end-runs. Thus, providing constructive criticism does not have to threaten authority. We recommend concentrating on moving forward, not dwelling on past events, and defining what it takes to move forward in detail and from both perspectives. Mention of the criticism or disagreement will often be better received if joined by a simultaneous positive suggestion/direction.

Constructive criticism and joint problem solving engages with authority to solve problems rather than threatening that authority. The ability to find content/tone of discourse that helps transform potentially adversarial interactions into opportunities for overcoming disagreement is a central challenge. Consider that perceptions of retribution frequently indicate failures of communication for which all parties share responsibility. We think that these perceptions should trigger self-evaluation. We advise against depersonalizing authority figures. They live within complex environments, as do we. We should try to put ourselves in the other's position. Our supervisor (or conflict participant) answers to authority, just like we do. In defining the conflicting agenda, we need to separate the sub-

stantive issues from the personalities involved, do our homework, know the facts, and avoid rumor, innuendo, and discussion of conspiracy. Before one engages in conflict-reducing discussions, allow anger, resentment, and self-righteousness to wane. Dissipating these feelings in the safe-harbor of friends and colleagues before engaging authority figures will enhance the development of meaningful and long-lasting solutions that provide satisfaction for all parties.

Although there are anecdotes of retribution after constructive criticism of decisions by authority, it is not the usual *modus operandi*. Furthermore, sensitive handling of potential conflicts in private rather than public venues will go a long way toward engendering constructive solutions to conflict. Finding common ground is a key element to resolving conflicts as is the ability to agree on respectful disagreement. Engaging in compromise should not come at the expense of an individual's intellectual, scientific, or ethical integrity, an outcome that virtually never needs to occur.

In the end, academic units are generally not democracies and leaders must take the responsibility for their decisions, good or bad. Nonetheless, effective leaders are often both open to and grateful for input provided honestly and without personal attack. Input that recognizes the environmental stresses/demands that affect the leader's motivations and behaviors will be most effective. Providing this not only provides support for the organization's leadership, but advocacy for the organization itself, whose health is central to the success of all faculty members for whom it serves as the academic home.

5. Institutional versus National Activities

Faculty members should be guided by their career goals when choosing to focus on institutional or extramural (regional or national) activities. Institutional success with less of a focus on national prestige is better suited for some, whereas extramural activities provide more career satisfaction for others. We strongly recommend that one does what one is good at doing. Often focusing on activities outside of one's institution provides opportunities for diversification more than is possible when institutional, often administrative, activities are the principal responsibility. Many promising careers have been limited by excessive local administrative activities, which then become a weight holding back the mid-level faculty member. Regardless of the emphasis of one's energies and activities, it should be chosen consciously as opposed to by default. We advise that you make your choices known to your mentors and enlist them in helping you to achieve these goals. Most importantly, whether locally, regionally, or nationally, do not underestimate your flexibility or potential influence, but do not overestimate your skills or overcommit to the point of failing.

6. Medical Practice in a Relative Value Unit and Pay-For-Performance Environment

One way or another, the concepts of relative values for different work and reward tied to performance are intimately linked. In US medicine in the 21st century it is life as we know it. The original concept of relative value units (RVU) applied to specific clinical care components dates back decades. This concept

does, as it is entitled, create uniform measure of the value of work productivity in units that facilitate comparisons across individuals. A dollar value is given to a work unit. Many academic centers have expanded the valuation to other components of our academic life, independent of a clinical work unit. An example would be to apply RVU to teaching a physical diagnosis class. A related phenomenon is that payers of services are interested in rewarding performance (or achieving a desired outcome), not specific work units, and this has been labeled pay-for-performance. Pay-for-performance will be successful only under certain conditions highlighted by whom or what defines performance. The payer could be an insurer, such as commercial insurance companies, the government, such as Medicare or Medicaid, but also the academic institution itself. If performance is defined subjectively, chaos or an autocracy will soon follow. If in a pay-for-performance environment, ask both by whom and how performance is defined, *i.e.* what are the objective parameters? Clinical work RVU, grants submitted, and classes taught (*e.g.* physical diagnosis, physiology, non-clinical teaching) are all objective. We need to accept the standards by which we will be judged and to do that, we must understand them. What is valuable (and this is quite relative), what is the currency, and how things are measured are key issues to understand. In this context, pay for performance in acquiring RVUs makes sense.

The RVU concept is a good idea. It objectifies what we do, and defines how we earn compensation. It gives things value and by doing so allows objective and fair allocation of resources (time, space, and money) and adjudication of disagreements. The concept of group *versus* personal incentives deserves special mention. Does everyone carry their own weight? If they do, it certainly is easier to consider group incentives. The smaller the group, the easier it is to quantify and enforce this concept. Personal incentives can lead to acrimony, promote erosion of quality by overextension, jeopardize diversified career expectations (scholarly), and threaten the maintenance of the sense of the group; but they are a lot easier to implement because they are easy to measure.

The costs of nonrevenue-generating work must be borne. Objectifying this work with RVUs is logical and accommodates the accounting necessary to run an academic program. Fortunately there are national standards for reference. Awareness of this necessity is vital to the academic community. The person performing the nonrevenue-generating work permits their colleagues the time to generate revenue. This system works, and works best when understood.

Pay for performance within our academic endeavors was discussed above, as earning RVUs through diverse means. Pay for performance for clinical activities, especially if defined externally by the government or commercial insurers, is another complex issue altogether. A desired clinical outcome (a performance measure) may be what earns payment rather than the work that went into the attempt to achieve the outcome. Performance measures may be applied to small clinical units or to the entire faculty. The former will be more clearly defined and much easier to manage or oversee. Involving the entire faculty may have initial attraction because of financial incentives, but

this should be considered a high-risk approach because successful broadly applied models are not yet evident. The payer and the provider share risk in this situation. Administrators removed from clinical care delivery may have expectations that might be difficult to deliver. Thus we are recommending caution when approaching such payment models.

7. Distractions

By mid-career, faculty members have often achieved recognition as evidenced by requests to speak and consult. Remuneration for such activities is enticing. However, both the activity and the remuneration can be distractions from our primary academic mission. Good mentoring can be very helpful in finding and maintaining balance. Many academic institutions are intentionally liberal in the definition of "outside time." Clearly, this is an area of potential abuse just from the standpoint of time. To reduce the potential conflicts of interests some institutions forbid the acceptance of research funds from any entity that has provided consulting or speaking fees. In the absence of such prohibitions, there is again the concern that conflicts of interest will be perceived. To counter much of this conflict, transparency is essential and can be very helpful in constructing oversight. This can be broadly defined across departments or more narrowly defined within a divisional unit. There are advantages and disadvantages to both. Fair and equitable application of rules and policies is mandatory in either case.

8. Rejuvenation

Certainly for a career in basic science, but also applicable generally, is the possibility that a career focus may become too

narrow and repetitive and may be in need of rejuvenation. Recognition of this in a timely manner is crucial such that the career remains productive. This could take the form of a sabbatical to enrich the investigator's armamentarium to pursue basic questions. On the other hand an early career in basic science may lead to a passion to translate laboratory findings into disease detection, prevention, and/or intervention. This transition may also be facilitated by a mid-career sabbatical. Knowledge of emerging funding opportunities for translational/clinical investigators at the National Institutes of Health and other nonprofit organizations discussed above is important for such a career change.

Conclusions

The mid-level faculty member is at a point of career transition that may be associated with stressful challenges. Central themes include collaboration, trust, mentoring, diversification, and above all, sensitivity to those with whom we interact. The academic life cycle is best enjoyed recognizing that it is truly a circle without end, and can be so only because of those who came before us and those who follow us.

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