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Summary

- In order to advance their career, junior faculty members with an interest in academic entrepreneurship must maintain a dual focus: entrepreneurial success and academic productivity.
- A key first step is to choose the appropriate academic track that values and/or allows time for entrepreneurial activities. Then, as with all faculty members, you need to remain aware of the criteria for promotion and maintain and regularly review your dossier to ensure that you are making academic progress.
- Entrepreneurial activities can be integrated into the academic promotion process but are not traditionally valued. Seek guidance on how best to frame them as part of your dossier.
- A proactive approach that considers a five-to-seven-year timeline can mitigate stress and help you reach your career goals.

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The Promotion Process: Academic Entrepreneurship Career Tracks

Alexandra Marquez, MD, MSTR,¹ and Flaura Winston, MD, PhD²



Summary

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- A key first step is to choose the appropriate academic track that values and/or allows time for entrepreneurial activities. Then, as with all faculty members, you need to remain aware of the criteria for promotion and maintain and regularly review your dossier to ensure that you are making academic progress.
- Entrepreneurial activities can be integrated into the academic promotion process but are not traditionally valued. Seek guidance on how best to frame them as part of your dossier.
- A proactive approach that considers a five-to-seven-year timeline can mitigate stress and help you reach your career goals.

Introduction

Like a constellation of stars, the success of an academic institution depends on its individuals. For junior faculty members beginning to plan their career, achieving stardom may appear staggeringly far away. Although supernova status is rarely a requirement, it is necessary to demonstrate growth and success in order to progress along a career trajectory. In many cases, receiving a promotion is necessary to keep a job. Faculty with an interest in entrepreneurship will be faced with unique challenges, as traditional university promotion processes do not value entrepreneurial activities. While the promotion process may seem daunting at first glance, with the right attitude, a lot of passion, and a little bit of strategy, it can actually help one take control of their career and placer

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career goals within reach. This chapter will provide an overview of the key steps in the typical promotion process and offer some advice on how to harness the process to incorporate (and get credit for) entrepreneurial activities.

Key Steps in the Promotion Process

Step 1: Choosing the Right Track

Every faculty position is appointed to an academic career track. Academic tracks, also called “lines” at some institutions, are intended to sort new faculty into a promotion pathway. Each track has different expectations regarding clinical care, teaching, and research, and carries its own pace, career goals, and evaluation metrics. Tracks generally fall into four–five major categories that reflect their primary responsibilities. There is considerable variability in track name, number, and expectations between institutions (Table 1). Names can also be misleading. At the University of Pennsylvania Perelman School of Medicine, for example, the “clinician educator” track does consider teaching expertise, but, in fact, also emphasizes research, while the “academic clinician” track focuses on clinical care, teaching, and applied research activities to support the health system (e.g., quality improvement and informatics). Not all tracks require promotion for reappointment, but some adopt an “up or out” system where failure to be promoted results in loss of employment. After a faculty member starts in a specific track, there can be points along the promotion timeline when there is the option to change tracks to better align academic achievements with promotion expectations. However, it is best to start in a track that meets the individual’s goals.

Unfortunately, there is no clear national model for academic career advancement that is specifically designed for the entrepreneur. To address this critical gap, a new “clinician innovator” career track has been proposed (Majmudar et al.; Ostrovsky and Barnett). The clinician innovator pathway would include relevant curricular training, time allocated for innovation projects, a mentorship structure that includes industry, and redefined metrics of success and criteria for promotion (Majmudar et al.; Ostrovsky and Barnett). Although the clinician innovator pathway has not yet taken a strong footing, many universities have incubator programs to help clinicians and researchers commercialize their ideas (see the chapter “Accelerators and Incubators”). For example, the Stanford Biodesign Program offers coursework, grants, and mentorship support in an interdisciplinary setting with partners from medicine, engineering, and business (Brinton et al.). Others, such as the Minnesota Innovation Partnership Program at the University of Minnesota, are working with their technology transfer offices to streamline collaboration between university researchers and industry (Office of the Vice President for Research).

When given the option of tracks, take the time to understand the expectations and promotion requirements. Choosing a track is a personal decision. In general, it is easier to start on the right track rather than change later. It may be helpful to spend time clarifying core values and motivations (see the chapter “Careers in Academia and Industry: Transitions and Challenges”). It is

important to consider the desired work allocation and pace of career advancement as well. Stewart Friedman, a management professor at the Wharton School of Business and author of *Total Leadership* offers this simple advice: “Be real. Acting with authenticity gives you the strength that comes from doing what you love” (Friedman). While a tenure-track position carries status, it may impose restrictions that distract from one’s primary interests. Further, specific terms can carry different meaning across tracks. Acceptable scholarship criteria differ in that a tenure-track position may require first, second, or senior authorship positions, while a clinician educator position may recognize any authorship position. “Teaching” can refer to either classroom teaching or clinical teaching (i.e., in clinical environments).

Table 1. Overview of Faculty Tracks as Summarized by the Association of American Medical Colleges’

Track Type	Description
Traditional tenure	<ul style="list-style-type: none"> • Concentrated effort in teaching research/scholarship, and patient care • Conduct of original research • Publication in peer-reviewed journals
Clinician educator	<ul style="list-style-type: none"> • Primary responsibilities in teaching and patient care • Research or scholarship may or may not be required • Publication in peer-reviewed literature may or may not be required
Research track	<ul style="list-style-type: none"> • Supported by research grants, often those of other faculty

Faculty Roster (Association of American Medical Colleges)

Step 2: Understand the Timeline

The promotion “clock,” also known as the probationary period, typically spans from six to ten years, depending on the track and institution (Walling) (Figure 1). For someone hired as an assistant professor, the countdown likely begins immediately upon hire. Alternatively, an initial period in an instructor role can serve as an incubator, offering protected time to explore, find a niche, and develop a research project prior to promotion to assistant professor. However, accomplishments

(e.g., publications) during this period may not count toward the criteria for promotion from assistant to associate professor.

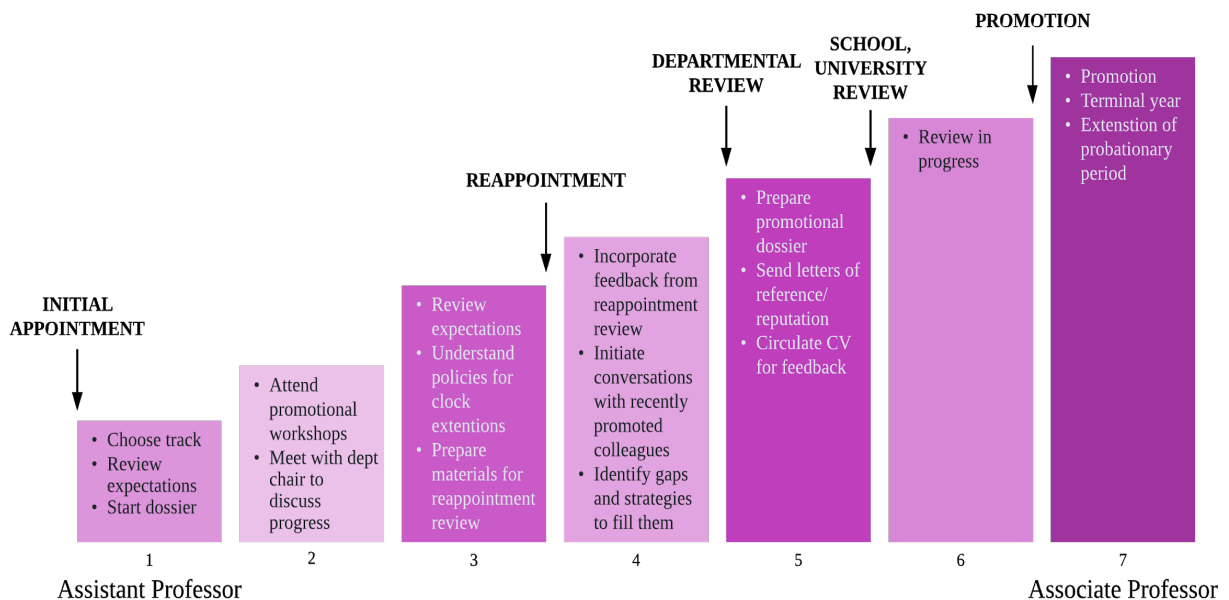
Once a track has been chosen, the first one–two years should be focused on familiarizing oneself with track-specific expectations and milestones toward promotion. During this time, attend promotion workshops, start an academic dossier, and meet with the department chair to set yearly goals and discuss progress. In years two to three, prepare materials for the first major milestone: reappointment review. For institutions with longer timelines, the probationary period may include a second reappointment prior to promotion. Use years five and six to incorporate feedback and initiate conversations with those who have been recently promoted. A bit of strategic advice from mentors and colleagues can help fill in any gaps. The path to promotion may be a bit less smooth for the academic entrepreneur, but mentorship should occur at as regularly planned activities, every step along the way. In the penultimate “up or out” year, prepare files, circulate reference letters and CV for feedback, and submit the final dossier for review. The dossier is often due approximately one year before the actual end of the promotion period. It is critically important to plan for this deadline, especially if one is building a non-traditional case based on entrepreneurial activities. Further, as the deadline for dossier submission is far in advance of the actual decision, activities within the last two years may not be part of the decision-making, shortening the effective timeline for promotion by up to two years. It is highly recommended that specific due dates are discussed with the administrative staff involved in the promotion process.

The promotion timeline is highly regimented and follows a strict schedule, with few exceptions. However, most universities allow faculty to request an extension of the probationary period in certain circumstances. Effectively, the clock can be stopped for up to two years following the birth or adoption of a child in order to provide care for a dependent family member, or for personal illness or disability. Extensions offer a flexibility and safety net that may help young faculty members integrate career and family life. Early promotion, on the other hand, requires departmental support and is usually undertaken only in compelling cases. There is no reason to rush; it is in the academic’s best interest and that of the institution to wait until the time is right. Many institutions will allow leave for entrepreneurial activities, as well, allowing for temporary stopping of the “tenure clock”. As with all deviations, honest, open communication is critical and careful planning.

While personal-family leave is expected and understood, negotiating time away from core activities to pursue entrepreneurial endeavors may be difficult because of numerous barriers to innovation inherent in the traditional academic environment. These negative forces include misalignment of incentives for promotion, lack of established pathways and mentorship for career advancement beyond research, unfamiliar funding streams (i.e., other than the federal government funding), promotion committee values, bureaucratic impediments, ineffective technology transfer mechanisms, and even an institution’s cultural angst about supporting “capitalistic” pursuits (Dittrich; Majmudar et al.; Ostrovsky and Barnett; Sanberg et al.). Choosing an academic medical

center that has an established ecosystem of innovation is essential for reducing discord and facilitating success. Whenever possible, try to align primary academic work and entrepreneurship in a mutually beneficial way. It is strategic to advance the field (i.e., publishing and maintaining thought leadership) while also developing a business strategy. For example, if one is conducting clinical research on hypertension in the post-partum period and also developing a mobile application to track blood pressure for that same patient population, one strategy could be to add rigorous qualitative research to the end of a study visit (provided it is approved by the institution's research ethics board). It is already difficult enough to balance core academic responsibilities, so the academic should be upfront and explicit about time limitations with startup cofounders (and with themselves) and the academic's need to continue to publish. At every step, entrepreneurial responsibilities should be documented, discussed, and negotiated with the department chair. If a sustained block of time is needed—for example, six months—options include a sabbatical or leave of absence. Another important resource is the institution's compliance office that can help one establish a conflict management plan (see the chapter “Understanding Conflict of Interest for Academic Entrepreneurs”).

Figure 1. Sample Timeline for a Seven-Year Promotion Process on a Clinician Scholar Track.



Legend: Numbers indicate years since starting as an assistant professor.

Step 3: Prepare the Promotion Dossier for Review

The promotion dossier is the portfolio of professional activities and accomplishments that committees at the departmental, school, and university levels will use to determine whether or not one will be promoted. Assembling this dossier is no small feat, so starting early is encouraged. The components of a promotion dossier vary with rank, track, and institution, but generally include a

CV, grants, personal statement, teaching portfolio, and letters of recommendation from the department chair as well as external consultants. Keep in mind that what is included should be consistent with one's career track. Most likely the institution will not explicitly assess one's entrepreneurial impact, so it is up to the individual to weave these achievements into the dossier and explain how they add value to the institution.

The CV is the foundation of an academic's file. It is the roadmap of their career, and it will be carefully examined at each level of the review process to evaluate their readiness for promotion.

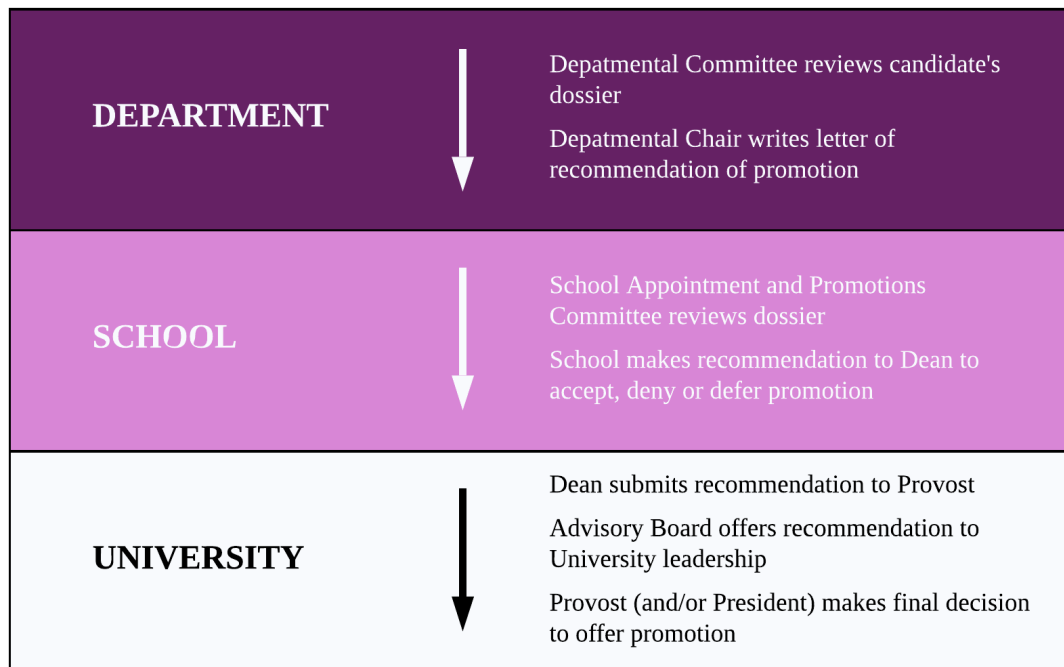
In general, there is no standard model for what, how, or where to incorporate entrepreneurial efforts into one's CV. The individual might choose to include industry-sponsored research, patents and intellectual property, licensing agreements and income, devices, Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) grants (see the chapter "SBIR/STTR Grants: Introduction and Overview"), and companies founded (Sanberg et al.). Patents and commercialization are often counted under research. Note that each university may have specific language for how to document these activities.

If teaching is an important component in one's track, a teaching portfolio will need to be submitted. This is a record of one's educational activities and evaluations, typically limited to the last few years prior to promotion. If the academic tends to excel in certain teaching activities, they may want to gradually modify their teaching so that they spend all of their time in those areas during the three years before they submit their dossier. Knowledge of innovation and commercialization are documented here, and could include conferences attended, certificates obtained, educational materials developed, and courses taught. A personal statement outlining one's teaching philosophy and focus may also be requested. The personal statement is a great opportunity to describe one's entrepreneurial responsibilities and explain how they add value to the institution. Promotion to full, and sometimes associate, professor may require letters of recommendation from external consultants with whom one has not previously collaborated. The committee will ask the academic or the department to identify individuals at peer institutions who are experts in the field to provide an unbiased, professional assessment of their academic reputation and achievements. These letters can also be used to demonstrate the academic's innovation contributions and thought leadership.

The review process for promotion in academic ranks is conducted by multiple committees in stages, typically starting within the department and then progressing to school and university levels (Figure 2). After the academic informs their department chair that they are interested in applying for promotion, their completed dossier is reviewed by a departmental evaluation committee. If the departmental committee recommends promotion, the dossier will move forward for review by the school (e.g., the School of Medicine). The school-level committee will again review the documents and the department chair's letter, and will then, with their dean, advise the university (typically the provost) to approve, deny, or defer promotion. The final decision rests with university leadership.

Assembling a dossier can be a stressful process, especially for the academic entrepreneur. Meet early with the department chair or division chief to create a game plan and identify gaps in the dossier. Talk to colleagues who have recently gone through the process for strategic advice. Consider meeting with promotion committee chairs or representatives at all stages as the academic entrepreneur might be paving new pathways. As academic tracks and criteria for promotion may change over time, always check the institution's requirements and ask a mentor or the promotion committee to get clarification about the specific case. As noted earlier, one's promotion dossier will likely need to be submitted a year or more in advance of the actual due date. Starting early and planning ahead can mitigate stress in the final years before promotion.

Figure 2. Levels of Review in the Academic Promotion Process.



Conclusion

Promotion is a necessary milestone for advancing one's career as an academic entrepreneur and may be a requirement for staying employed by the academic center. Be strategic—the most important step in the process is choosing a track that fits with one's goals and interests. Plan ahead—it is never too early to familiarize oneself with the criteria and timeline of one's chosen track. Use available resources—reach out to mentors, colleagues, and the department for advice and help with goal setting. If one has a proactive approach and a positive attitude, the academic promotion process can help them achieve their innovation goals and build the career they want.

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