

# Academic Mentorship Builds a Pathology Community

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## Abstract

Since academic mentorship focuses on developing and supporting the next generation of pathologists as well as the existing faculty, it plays a vital role in creating a successful academic pathology department whose faculty deliver quality teaching, research, and clinical care. The central feature is the mentor–mentee relationship which is built on mutual respect, transparency, and a genuine interest from the mentor in the success of the mentee. This relationship is a platform for career development, academic guidance, informed professional choices, and problem solving. Departments of pathology must embrace a culture of effective mentorship so that trainees and faculty members are well mentored. Mentorship should become an academic activity that is valued and rewarded. Departments should create and support formal educational programs that train mentors in mentorship. Effective models of formal mentorship need to be created and evaluated in order to strengthen academic pathology. A successful mentorship culture will provide for a sustainable community of academic pathologists that transmits their best practices to the next generation.

## Keywords

career development, curriculum, mentee, mentorship, pathology

## Introduction

In an academic department of pathology, mentorship may be considered a respectful relationship in which an empathetic faculty member provides career and/or scholarly guidance to promote the overall academic success of a colleague or trainee. In doing so, the mentor may be a role model and the relationship may be short or long term. Dealing with current professional and personal issues and developing and navigating a career plan require effective mentorship. No one, including trainees or faculty, can effectively advance along their career path alone. By helping trainees and faculty members build peer relationships with their mentors, departments and their chairs not only cultivate strong effective mentorship relationships but also foster the creation of a tight-knit scholarly community with both work-related and social bonds.

The pathology literature contains numerous examples of individual mentors who influenced their trainees and colleagues.<sup>1-3</sup> The influence of Dr Ramzi S. Cotran on mentorship was extraordinary. As Frederick Schoen and Michael Grimbrone wrote “Dr Cotran developed one of the country’s most

successful training centers in academic pathology and its subspecialties.” “He shepherded hundreds of young physicians, scientists and physician-scientists through this very challenging stage of their careers.” “He created a highly supportive academic atmosphere that allowed his faculty, residents and fellows to flourish.” “Dr Cotran considered his role in faculty development and mentoring such graduates his proudest achievement.”<sup>4(p108)</sup> Dr Peter Ward authored a fascinating paper “to outline the numerous scientific mentors who played such an important role in [his] development as independent scientific investigator.”<sup>3(p1)</sup> Thus, there are numerous

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**Table 1.** Mentees in Pathology Departments.

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Faculty
- Senior
- Mid-career
- Junior
Undergraduate
- Medical students (MD)
- Arts and science, engineering, commerce
Graduate
- MSc
- PhD
- MD/PhD
Postdoctoral
Interns and residents (postgraduates)
Research fellows
Clinical fellows

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examples of effective mentors and successful mentees in pathology. Much of that was accomplished on an informal basis. Today as our environment becomes more complex and there are more pitfalls out there, it is reasonable to institute formal mentorship programs in pathology as has been done elsewhere.<sup>5-7</sup>

As career development, teaching, research, and clinical care become more complex, there is an urgent need to go beyond serendipitous mentoring and create a sustained culture of effective mentorship in all academic departments of pathology.<sup>7-9</sup> Formal mentorship should be an important academic activity that supports the members of departments of pathology in their quest to develop and maintain a community of high-quality clinicians and scholars among faculty, students, and trainees. Often we regard new junior faculty to be the most in need of mentorship. This is usually the case however as their career progresses into new areas, mid-career, and senior faculty benefit from mentorship as well. As well, the wide array of trainees including residents and fellows, medical students, graduate students, and undergraduates all benefit from mentorship from pathology faculty (Table 1). Pathology faculty should consider mentoring trainees outside pathology in other disciplines and programs as well. Mentoring of medical students by pathologists is of critical importance in exposing these students to a career in pathology, since unfortunately most medical students are not exposed to the clinical practice of pathology and the academic environment of departments of pathology.<sup>10</sup>

## Advisors

Even at an early stage, trainees and faculty should seek out individuals who can help them with advice on how to deal with barriers that may need to be addressed and overcome as they move forward in career development.

Advice may be sought from family, friends, and partners. This core group provides important general support, but often they are too close to be able to provide much needed arm's length advice, and usually, they do not have content expertise nor do they have training in career development to provide benefits in scientific career advancement.

For initial guidance, professional career counselors, especially those with knowledge of pathology and biomedical and life science careers, are useful. They may be accessed as institutional resources or as professional consultants retained by departments of pathology or faculties of medicine. They will be able to provide the current best practice in career building, in searching for academic or nonacademic positions, and in career advancement. These professionals provide practical information on creating a curriculum vitae or resume, communicating science, networking, interviewing, and integrating into a team. Often, these individuals are contacted only once or twice to obtain specific information, so such interactions are important but insufficient. Some institutions and/or departments provide successful seminar series and/or mini courses on the broad topic of career and professional development for both trainees and faculty. These are often of a general nature and do not target the pathology community.

Advice can also effectively come from senior peers, either trainees or faculty, who "have been there and done that" and are willing to share their experiences. Pathology departments may develop a senior advisor group of trainees who are available to advise peers, especially more junior peers, on specific issues as they arise during training. These advisors can assess the situation and most of all direct the concerned trainee to departmental and/or institutional resources that are available to assist. The members of this senior advisor group should be carefully chosen and should undergo formal training by the department or institution.

## The Mentee

Departments of pathology have the ability to create opportunities for trainees and for faculty to explore mentee-mentor relationships. The mentee has to be serious about developing this mentor-mentee relationship and put in the effort to select suitable mentors. The mentee has to be given the opportunity to check out potential mentors by learning about the work the mentor carries out and by considering whether a potential mentor has the characteristics they seek in a mentor that would align with their own needs.

The mentees should expect that their mentors respect them, listen carefully to what they say, and provide a safe confidential environment for mentorship interactions. Above all, the mentee should expect that their mentor is a nonjudgmental supporter of their career development and that their mentor is there to promote their successful training and career advancement. On the other hand, the mentee has responsibilities as well. The mentee should behave in a respectful manner and be mindful of the time and effort the mentor is providing to be a successful mentor. The mentee should be honest with the mentor and keep them in the loop with matters related to their mentorship. The mentee should show appreciation and should be willing to assist the mentor as appropriate and in situations that provide benefits to both. The mentee should be available to provide evaluations of the mentors, such as for promotion and awards.

## The Mentor

To succeed in their academic career, trainees and faculty need to have the opportunity to identify individuals who have experience in their field and who are interested in formally helping colleagues or trainees succeed in their academic quest. Usually, mentors are located in the same department or institution as the mentee however distance mentorship does occur, especially through scientific and professional societies which are creating mentorship programs as well.<sup>11</sup>

Mentors put their mentee's career as a top priority for themselves.<sup>12</sup> They provide advice on pathways to follow, on opportunities to seek, and on how to prepare for career development and advancement in pathology. It is often advantageous to seek more than 1 mentor since each will have specific qualities and expertise.<sup>5</sup> This is critical for MD/PhD trainees who carry out basic or translational research in departments of pathology and for graduate students working in multidisciplinary teams. In pathology, a clinical mentor and a research mentor make a useful combination for mentorship of junior academic faculty. Mentors are most effective when they act as guides and sources of information. They should leave the final choices to their mentee. Their task is to open eyes to alternatives but not to live the mentee's life for them. Mentors need not be disappointed with their mentee's choices, especially if it is contrary to their own advice. They should be pleased to provide the mentee with the opportunities to make well-informed choices. At all levels, good citizenship in the form of mentorship should be valued by departments of pathology and should be included as part of a faculty member's teaching/education activity dossier.

## The Mentor–Mentee Relationship

The mentor–mentee relationship is based on personal dynamics and should not involve evaluation. Once evaluation is considered, the dynamic of the relationship changes from a free-flowing, transparent, and confidential relationship to a guarded power-driven relationship where the focus is on outcomes and impact. Evaluation occurs in student–supervisor relationships and in faculty–supervisor relationships. These settings may be valuable to promote career development but do have elements of conflicts of interest. Often true mentorship may develop from these relationships in the future once the power structure is removed. An exception to this evaluation conflict is a department chair or division head who has mentorship as part of their job description and who is very interested in being an effective mentor. One caution is that the chair or head may be very busy and although intentions are good, they are unable to meet their commitments because of the demands of their own leadership role.

In today's academic departments of pathology, there are several specific issues that need to be considered by the mentor which in many instances are very important. Gender issues are likely to come up, especially related to promotion and advancement<sup>13</sup> and to career–family–life balance.<sup>14</sup> For women and

minorities, having at least 1 mentor who has first-hand knowledge of roadblocks and pitfalls due to gender or minority status is useful. There is literature available in these areas, however the most effective approach for the mentor is to listen carefully to the mentee since each will have their own personalized experiences and needs.<sup>14</sup> Confidentiality when discussing these areas needs to be assured and followed. The mentee is pleased to have someone listen to their concerns and to offer mentorship on how to navigate what may often be difficult situations. The mentor should not feel the need to have all the answers but should be willing to suggest that the mentee seek advice from other folks with more expertise and experience. The mentor should follow-up with the mentee and not just hand off the issue to others. Most academic institutions have central bodies that are devoted to minority faculty and to women faculty. The informed mentor is a valuable person to lead their mentee to the appropriate central officer for assistance. An experienced mentor may be valuable to the university/hospital organization by identifying gaps in the central programs, especially as they might apply to departments such as pathology. These gaps can then be corrected to the benefit of all. Issues that appear straight forward and time tested may indeed provide roadblocks for minorities, for women and for trainees or faculty with disabilities. Attention to the needs of members of the lesbian, gay, bisexual, transgender and questioning (LGBTQ) communities is facilitated by effective mentorship as well.

Another area of mentorship that needs attention is to assist mentees who are interested in leadership.<sup>15–17</sup> Planning for succession in departments of pathology is a serious task and mentors are in an excellent position to support those who express an interest in academic leadership overall and/or specific leadership in education and research. There is much to learn about leadership, and an informed and experienced mentor can suggest how to acquire basic leadership knowledge useful for the needs of pathology, a unique academic department that sits at the crossroads of basic science and clinical medicine.<sup>15</sup>

It is best to break down the barrier that exists between the professor and the student or between 2 faculty colleagues. Both have to respect each other and interact as friends. The relationship works best if the mentor is not only willing to give but is also willing to learn from the mentee. Each individual brings something to the table and benefits from the relationship. The mentor should let the mentee know what areas he or she can help with and in which areas the mentees should look for additional mentors. While this is not an exclusive arrangement, if the mentor is regarded as a primary mentor, the trainee or faculty member should keep this mentor informed about major issues, even though these may be out of their area of expertise. The mentor should request that the mentees meet with him or her regularly and inform them that he or she is available anytime for urgent matters.

Mentors should know the mentee well enough to submit references for jobs, scholarships, and awards. Students and faculty should be cautioned that a mentor can only comment effectively on what they know about first hand. Reference

seekers ask about motivation, creativity, innovation, and willingness to engage in group discussions and projects. Besides the obvious academic questions, employers ask about the ability of the student or faculty to work in groups and to get along with peers and with faculty and staff. Employers are not interested in hiring someone who will be disruptive to their pathology group. They want to hire people who are helpful to their peers and are willing to share in the work.

Mentors should suggest opportunities for those whom they mentor, in a manner similar to the opportunities that were suggested to them when they were mentees. It should be made clear to the mentee that this does not mean that the mentee receives preferential treatment. It means that the mentee is encouraged to discuss and explore opportunities that become available, and it is up to them to follow through or not.

## Creating a Culture of Mentorship in Pathology

The creation of a pathology community is necessary to fill a deep-seated need that many students and faculty express. They are looking for the leadership of the department or program to create a nurturing academic environment wherein the culture includes caring for the student and faculty well-being. They are looking for a collegial community of scholars. Trainees especially want to feel that they are part of the department. They are not just passing through but want to be a part of the family academically, intellectually, and socially. Mentorship programs can be very effective in doing this. Academic societies have accepted this within their mandate and develop mentorship educational opportunities to be used by their membership. The United States and Canadian Academy of Pathology has presented a course on mentorship and the American Society for Investigative Pathology offers symposia and seminars on aspects of mentorship at their annual meeting.

In order to create and maintain a culture of mentorship within academic departments and programs, evidence-based mentorship training programs need to be designed and implemented.<sup>7,18-20</sup> These training programs may be created and delivered across the institutions or by faculties, departments, or programs. Mentorship programs normally offer a well-defined curriculum but are not necessarily offering a scripted approach to mentorship. They may be initially directed at the organizational leaders who are in the best position to establish a mentorship culture for students, trainees, faculty, and employees. These training programs need to be attended by all mentors and evaluated to ensure they are preparing faculty for a successful mentorship role.<sup>6,18-21</sup> Once the leaders are trained, these programs are ready to be effectively disseminated within the department to faculty. A core of mentors may be formed by volunteer faculty or often volunteer alumni. A strong desire to mentor is important and potential mentors may be screened by departments for suitability to mentor.<sup>7</sup> Alternatively the role of a mentor may be an academic expectation of each faculty member, and performance is assessed as part of their annual academic review. Once a trainee or faculty member has a

**Table 2.** Outcomes of Mentorship in an Academic Department of Pathology.

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- The presence of an effective mentor training program
  - All members have access to structured formal mentorship by dedicated well-trained mentors
  - All mentees participate actively in driving the mentorship relationship
  - All members understand how to navigate pathways of advancement and promotion
  - All members have opportunities to address work-life balance
  - All members are aware of how to best approach the academic research mission of the department
  - All members are aware of how to best approach the academic education/teaching mission of the department
  - All clinical faculty are able to navigate their clinical duties successfully
  - Mentors and mentees provide input for qualitative and quantitative evaluation of the mentorship program
  - All members of the department, including faculty, students, and trainees feel connected to the department and part of the community of pathology scholars
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wonderful mentorship experience, they will want to provide a similar experience when they themselves are in a position to do so. So it is with those who trained with Judah Folkman, the founding father of angiogenesis research. Many of his trainees and faculty work on mechanisms of disease in departments of pathology.<sup>22</sup> Thus, the culture of quality mentorship is maintained and passed on from one generation to the next.

## The Outcomes of Mentoring

As departments embrace a culture of mentorship, it is important to clearly define departmental performance indicators and expected outcomes of the mentorship process (Table 2). These accountability criteria will likely change over time in the dynamic environment of academic pathology. It is useful to have a mentorship survey periodically, for example, every 2 to 3 years, to collect data on mentorship accessibility, effectiveness, strengths and weaknesses and to solicit suggestions for improvement. The survey should have questions for both mentees and mentors.<sup>7</sup> There is an extensive list of items for mentors and mentees to respond to which cover academic, professional, social, and personal issues.<sup>7</sup> These surveys are useful in determining whether the department is on a positive trajectory in its mentorship mission and in identifying changes that are required to maintain a sustainable community of medical scholars.

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# References

1. Roth LM. On being a pathologist—passing on the torch of knowledge. *Hum Pathol.* 2012;43:165-171.
2. Lewis RE, Julius M. Cruse, mentor and mensch. *Exp Mol Pathol.* 2012;93:288-290.
3. Ward PA. The first fifty years in research. *Annu Rev Pathol Mech Dis.* 2009;4:1-18.
4. Schoen RJ, Gimbrone MA Jr, Ramzi S, Cotran M.D, 1932-2000. *Cardiovasc Pathol.* 2001;10:107-108.
5. Duda RB. Mentorship in academic medicine: A critical component for all faculty and academic advancement. *Curr Surg.* 2004; 61:325-327.
6. Straus SE, Johnson MO, Marquez C, Feldman MD. Characteristics of successful and failed mentoring relationships: A qualitative study across two academic health centres. *Acad Med.* 2013;88: 82-89.
7. Jackevicius CA, Le J, Nazer L, Hess K, Wang J, Law AV. A formal mentorship program for faculty development. *Am J Pharm Educ.* 2014;78:100:1-10.
8. Haines SL, Popovich NG. Engaging external senior faculty members as faculty mentors. *Am J Pharm Educ.* 2014;78:101:1-6.
9. Sambunjak D, Straus SE, Marušić A. Mentoring in academic medicine. *JAMA.* 2006;296:1103-1115.
10. Hung T, Jarvis-Selinger S, Ford JC. Residency choices by graduating medical students: Why not pathology? *Hum Pathol.* 2011; 42:802-807.
11. Edelblum KL. Young investigator perspectives. Networking and service through professional societies. *Am J Physiol Gastrointest Liver Physiol.* 2014;306:G359-G360.
12. Burke A. Legendary labs: Secretes of academic researchers who produce excellent science and great scientists. *The New York Academy of Sciences Magazine.* 2008;Winter:20-25.
13. Bauman MD, Howell LP, Villablanca AC. The women in medicine and health science program: an initiative to support female faculty at the University of California Davis School of Medicine. *Acad Med.* 2014;89:1462-1466.
14. Howell LP, Lyons ML, Thor A, Dandar V. Sex differences in workplace satisfaction and engagement of academic pathologists: Opportunities to enhance faculty diversity. *Arch Pathol Lab Med.* 2015;139:936-942.
15. Duda RB. Physician and scientist leadership in academic medicine: Strategic planning for a successful academic leadership career. *Curr Surg.* 2004;61:175-177.
16. Taylor CA, Taylor JC, Stoller JK. The influence of mentorship and role modeling on developing physician-leaders: Views of aspiring and established physician-leaders. *J Gen Intern Med.* 2009;24:1130-1134.
17. Steinhert Y, Naismith L, Mann K. Faculty development initiatives designed to promote leadership in medical education. A BEME systematic review: BEME guide no. 19. *Med Teach.* 2012;34:483-503.
18. Pfund C, Maidl Pribbenow C, Branchaw J, Miller Lauffer S, Handelsman J. The merits of training mentors. *Science.* 2006; 311:473-474.
19. Pfund C, House S, Spencer K, et al. A research mentor training curriculum for clinical and translational researchers. *Clin Transl Sci.* 2013;6:26-33.
20. Law AV, Bottenberg MM, Brozick AH, et al. A checklist for the development of faculty mentorship programs. *Am J Pharm Educ.* 2014;78:98:1-10.
21. Meagher E, Taylor L, Probsfield J, Flemming M. Evaluating research mentors working in the area of clinical translational science: a review of the literature. *Clin Transl Sci.* 2011;4:353-358.
22. Augustin HG, Breier G. Judah Folkman (1933-2008). *Thromb Haemost.* 2008;99:250.