

# **TRANSITIONING TO LIFE AS A NEWLY- MINTED NEUROPATHOLOGIST**

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# Disclosures

- Speakers have no relevant financial relationships to disclose.



# Learning Objectives

- Identify a variety of practice settings and their main foci for neuropathologists.
- Outline the general academic tracks and their respective expected roles and responsibilities
- Describe expectations from a career in neuropathology and how they compare to the requirements of a job position in various settings and academic tracks.



# Outline

- Practice settings for neuropathologists
- Job descriptions, roles and responsibilities
- Job search and interviews
- Academic tracks
- Promotion and Tenure
- Publishing, professional development and recognition
- Intra- and inter-departmental, and interpersonal interactions
- Tending to your professional and financial future
- Balancing personal and professional matters



# Mentoring

- Formal or informal, senior or junior, but someone who has been there and done that
- Investigate, ask, and listen



# Practice Settings for Neuropathologists

- Academic
- Affiliated hospitals
- Private practice
- Research/diagnostics in commercial laboratories



# Job Descriptions

- NP-only, NP+surgical pathology/autopsy/directorship(s)
- Solo, two, or in a large division
- Primary and secondary department appointments
- All or some components of NP:
  - Surgical NP
  - Pediatric NP (including pediatric brain tumors)
  - Autopsy/neurodegenerative diseases
  - Neuromuscular NP
  - Ophthalmic pathology
  - Forensic NP
  - Outside consultations



# Academic Tracks

**Table 1: Time and Effort Distribution on the Compensated Pathways**

(in Percents)		Basic Scientist-TP		Basic Scientist-NTP		Clinical Scientist		Clinical Educator		Clinical Attending	
		Range	Typically	Range	Typically	Range	Typically	Range	Typically	Range	Typically
<b>Teaching/Mentoring (Total)</b>		<b>10-35</b>	<b>30</b>	<b>0-30</b>	<b>5</b>	<b>5-10</b>	<b>7.5</b>	<b>10-50</b>	<b>25</b>	<b>0-30</b>	<b>20</b>
	Didactic Teaching					1-3	2.5	2-10	5	0-2	1
	Bedside Teaching					2-10	5	10-40	20	0-30	20
<b>Research</b>		<b>50-85</b>	<b>60</b>	<b>90-100</b>	<b>90</b>	<b>40-90</b>	<b>75</b>	<b>5-30</b>	<b>10</b>	<b>0-10</b>	<b>5</b>
<b>Clinical Service (Total)</b>						<b>10-50</b>	<b>20</b>	<b>40-80</b>	<b>80</b>	<b>70-100</b>	<b>90</b>
	Direct Patient Care					10-50	15	40-60	60	70-100	70
	Bedside Teaching					2-10	5	10-40	20	0-30	20
<b>Leadership/Admin. Service</b>		<b>0-35*</b>	<b>10</b>	<b>0-10*</b>	<b>5</b>	<b>0-10*</b>	<b>2.5</b>	<b>0-20*</b>	<b>5</b>	<b>0-10*</b>	<b>5</b>



# Promotion & Tenure

- Fill the main buckets:
  - Clinical service
  - Teaching
  - Research
  - Administration
- Also professional recognition and departmental/institutional/community citizenship
- Overlapping roles
- Secondary appointments



# Publishing, professional development and recognition

- Scholarly work is the foundation of academic medicine.
  - Contributions to the literature
  - Sharing experiences
  - Educating yourself and others
  - Getting your name recognized as an expert
  - Developing a niche
- Peer-reviewed papers, review papers, letters to the editor, book chapters, collaborations...
- Meeting attendance and presentation
- Involvement in your professional society
- Duties to our specialty and subspecialty



# Interactions

- Intradepartmental
  - Shared responsibilities
  - Coverage
  - Collaborations
  - Duties
- Interdepartmental
  - Questions/follow-up on cases
  - Conferences
  - Teaching/board reviews
  - NP rotations
  - Collaborations
- Interpersonal



# Investing in your Professional and Financial Future

- Building assets in both areas over time
- Process- rather than result-oriented approaches
- Consistency/discipline
- Juggling multiple responsibilities
- Not being great at everything all the time, but being great at being consistent
- Mastery, autonomy, purpose



# Work-Life Balance

- Faculty development activities
- Wellness activities
- Two main camps (and everything in between):
  - Work is work; life is life
  - Fluid system (A master in the art of life)
- Resiliency and handling Problems
- Setbacks and bouncing back



# Other Considerations

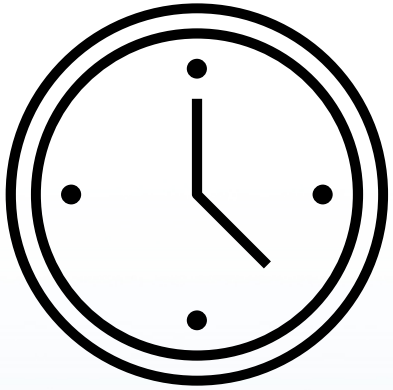
- RVU: Relative Value Unit
- FTE: Full-time equivalent
- Base Salary
- Base Attachment
- Compensation Plan/Bonuses
- Fringe Benefits
- Retirement Plan(s) and Savings
- Directorship of a Division



# Job Hunt



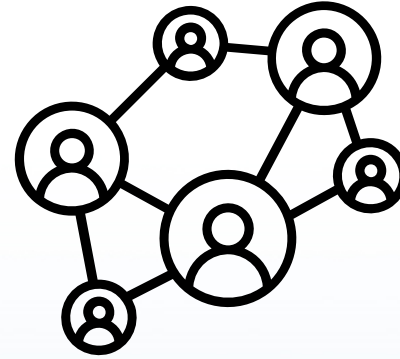
# Searching for your First Job



Begin 1-2 years  
in advance of  
target start date



Consider  
geographic  
preferences  
and needs



Ask mentors  
and recent  
graduates in  
your field



AANP Job Board  
PathologyOutlines



# Envision your Future

- What are your interests, motivations, and goals?
  - Do you have a particular research or academic interest?
  - Are you drawn to private practice or academic life?
  - Do you see yourself in leadership and administration?
- What are your values?

Schwartz: An Overview of the Schwartz Theory of Basic Values

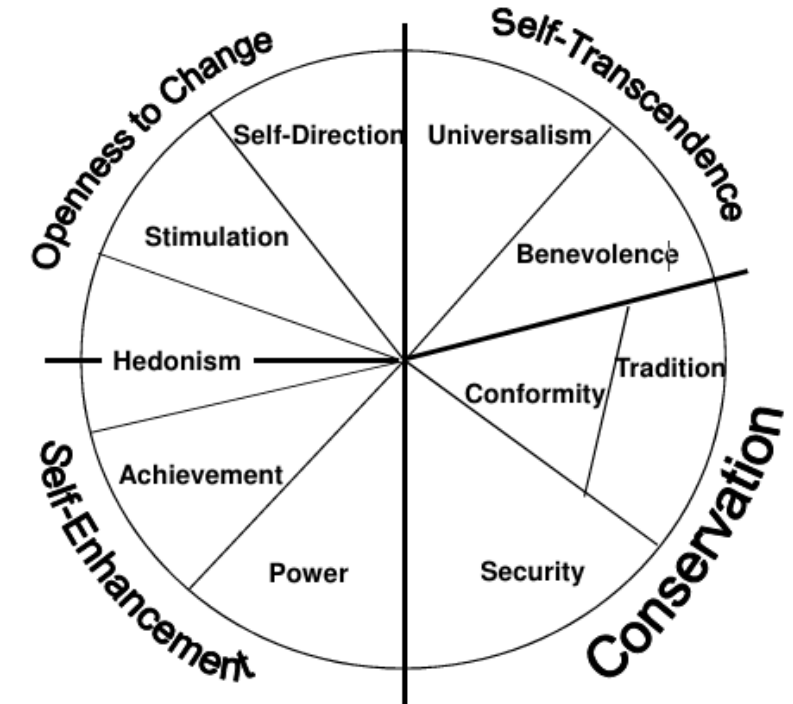


Figure 1. Theoretical model of relations among ten motivational types of value

# Prepare to Compromise

- Neuropathology cases are limited in many settings
- At least in the beginning, most neuropathologists need an additional skill set
  - Autopsy
  - Surgical pathology
  - Leadership/administration/service



# Know your Potential Employer before the Interview

- Who are the faculty?
- What is the department's academic track record and resources?
  - Is there an autopsy service?
  - Is there a brain bank?
- What hospitals are associated with the practice?
  - Major hospitals with neurosurgical services or community hospitals
  - How many?
- Avoid limiting your clinical skillset and opportunities early



# Know your Worth before the Interview

- AAMC Faculty Salary Report



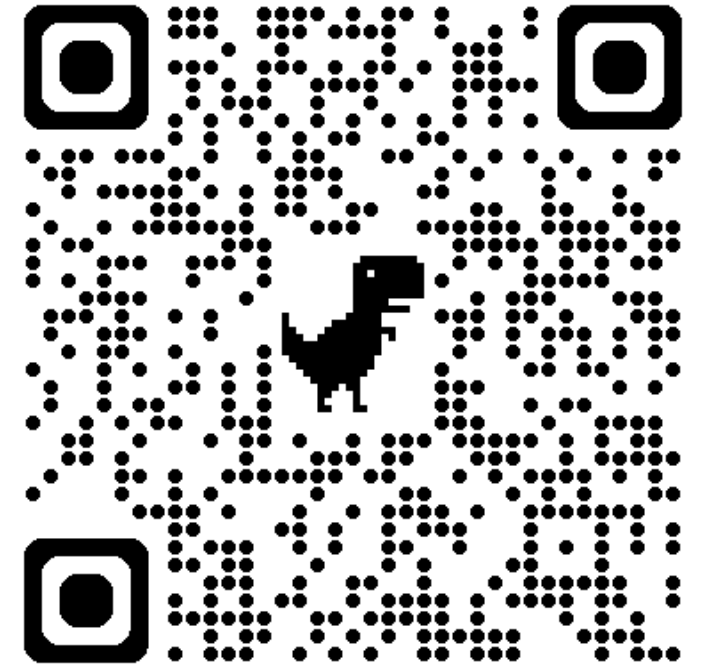
**AAMC Faculty Salary Report FY 2024 (Online)**  
Year Published: 2025

**VIRTUAL**  
**\$1,500.00**

**ADD TO CART ►**

♥ Add to Wish List

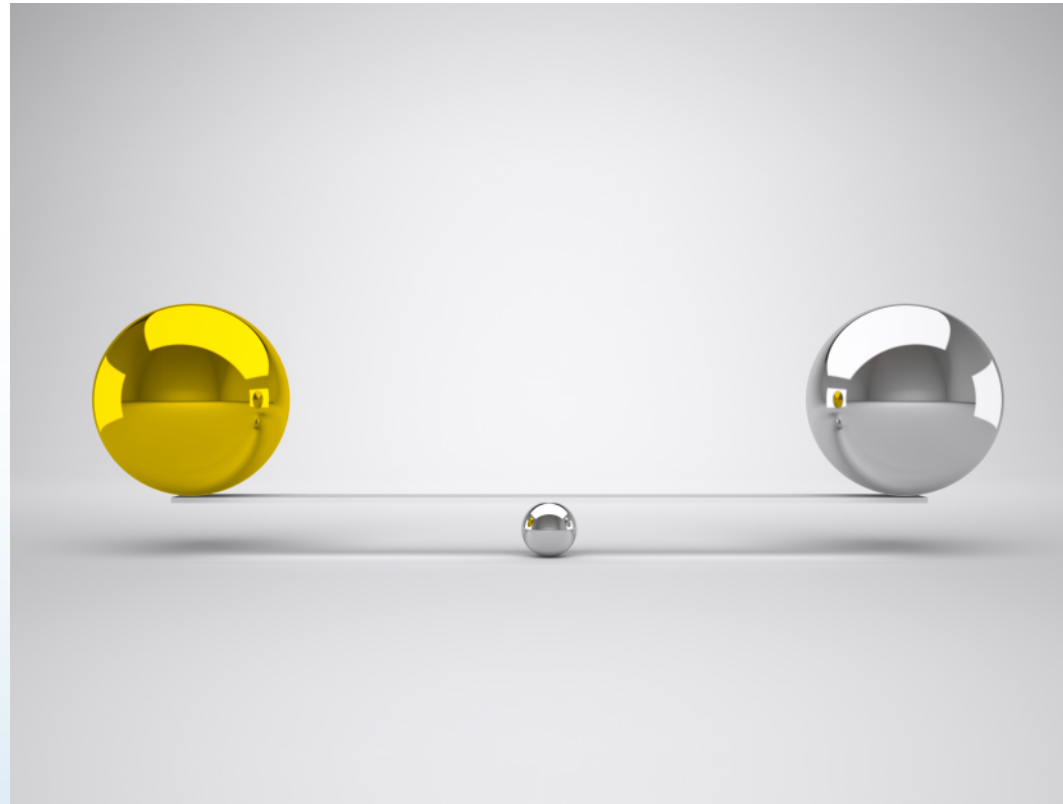
**Member pricing: \$75 | Non-member pricing: \$1,500.**



# A Two-Sided Consideration: Balancing Both Sides

Will I be a good fit for this job?

- Experience
- Interests
- Goals
- Values



Will this job advance my career goals?

- Mentorship
- Opportunities



# During the Interview

- Be prepared to ask at least three questions that pertain to your interests and goals.
  - How many neuropathology specimens were there last year and what were they?
    - Tumors
    - Neurodegeneration
    - Autopsy
    - Neuromuscular/Peripheral nerve
    - Eye
  - What services are you expected to cover, and will there be on-site training or mentorship for new skills?
  - How is call structured?
  - Don't just "ask to ask;" questions should be relevant to you.



# During the Interview

- Be prepared to discuss specifically why a job is right for you and why you are right for the job.
- Money and benefits are often discussed during later rounds of the interview
  - Don't open with salary inquiry or vacation (they'll bring it up later)
- Assess work environment
  - Turnover, promotion and tenure structure, availability of interviewers, resident culture, contact with medical students, allied health professionals and laboratory staff



# Congratulations: You're Hired!



# What Am I Doing Here???

Pending molecular reports

Billing e-mailing about CPT codes

Resident forgot to sample the hippocampus in autopsy case

“Glial hypercellularity with atypia on small biopsy”



Another Frozen!

Head and neck margin status

Clinician doesn't agree with diagnosis

Turnaround Time

GI says you missed single cell necrosis on 3 a.m. liver transplant evaluation



# Am I forgetting something?



# Letter of Resignation

Dear Dr. Chair,

Thank you for the opportunity to work at your distinguished institution. I have decided to pursue my dream of becoming an oceanic wildlife photographer. Please distribute my pending call schedule accordingly.

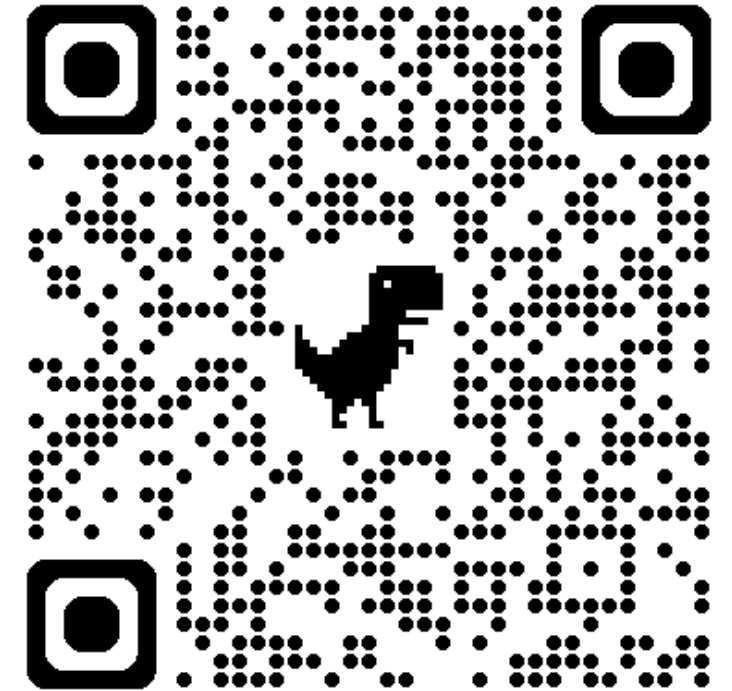
Sincerely,  
Dr. D. S. Gruntled



# Faculty Retention

- Myers et al. studied 2,427 contract faculty at a school of medicine (2010-2022):
  - 20% of faculty reported intention to leave
  - 15% attrition of assistant professors
    - Significantly higher than associate and full professors ( $p < .001$ )
    - 11% attrition for M.D. degree
  - Hypothesized reasons for attrition of junior faculty
    - Inadequate career advancement opportunities
    - Lack of mentoring opportunities
    - Heavy workloads and poor life balance
    - Refusal of tenure

**Let's Plan!**



**Assess in  
interview**



# Strategies for Promotion, Tenure, and Success

**Clinical Service**

**Research and  
Scholarship**

**Professional  
Recognition**

**Teaching**

**Leadership  
Administration**



# Clinical Service



# Clinical Service—Intradepartmental Performance

- Organization is key
- Balance efficiency and safety
  - Expect to show more cases in early career
  - Expect cases to take longer in early career
- Create a system for pending studies, addendums/amendments, and stick with it
- Be professional in transfers and consults
  - Write a note with a specific question or request
  - Follow-up for professional development and to show your appreciation for someone else's expertise
- Be a team player with call and coverage when you are able, but don't overstretch



# Clinical Service—Interdepartmental Performance

- Cultivate positive relationships with clinicians and surgeons
  - Know your surgeons, be available, attend tumor boards
- Encourage discussion and collaboration in conversations
  - Don't minimize concerns or requests; try to understand the “why”
- Be transparent and direct
  - How should a clinician interpret “suggestive of,” “consistent with,” etc.?
  - Offer to discuss over phone
- Take responsibility for mistakes
- Remember we are on the same team



# Teaching and Education



# Teaching—Medical Students

## Opportunities

- Impart expert knowledge
- Stimulate critical thinking
- Inspire the next generation of neuropathologists

## Challenges

- Rigid curricular guidelines
  - Please record a lecture for “self-directed learning”
- Limited time allotted to pathology
- Esoteric subject matter
  - “But is this on Step 1?”



# Teaching—Residents and Fellows

## Opportunities

- Impart expert knowledge
- Stimulate critical thinking
- Inspire the next generation of neuropathologists

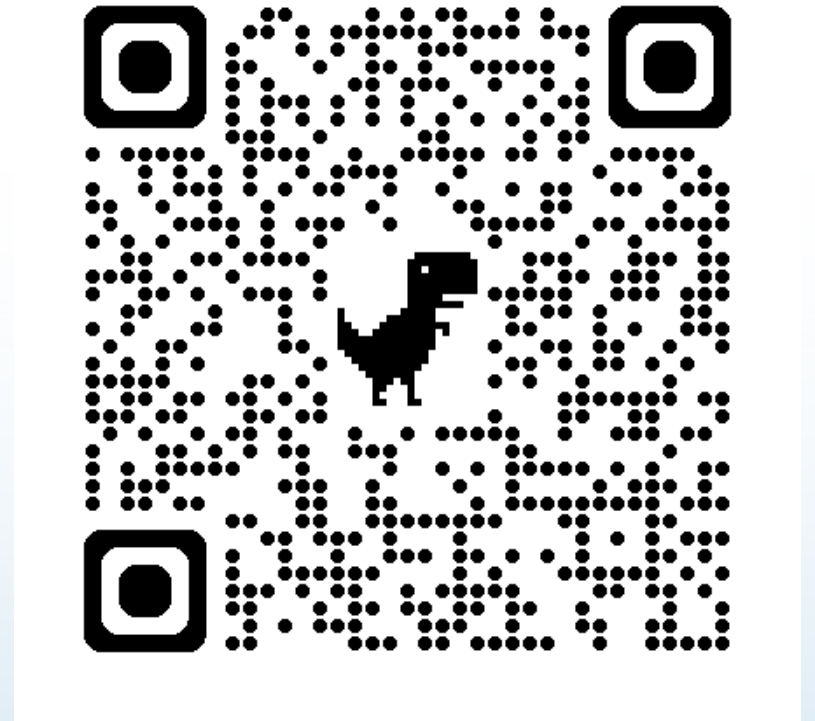
## Challenges

- Limited time for neuropathology
- Variable interest
  - “I’m going into dermatopathology”
- Esoteric subject matter



# Teaching—Feedback is not Equitable

- Student Evaluations of Teaching is influenced by non-academic factors (Constantinou and Wijnen-Meijer)
  - Low response rates
  - Perceived “easy subjects” and clinical science courses are generally rewarded with higher ratings
  - Gender bias and attractiveness



# Teaching—Improve Delivery with Adult Learning Theory

- Adult learners
  - Are intrinsically motivated to learn  
(Giving candy for correct answers may not be theoretically sound)
  - **Need to know why they are learning something**
  - Need to recognize an application for learning or the existence of a deficit
  - Prefer autonomy
  - Bring prior knowledge and experience
  - **Engage better with problem-focused content**
    - (Knowles et al., adapted from Gantwerker and Lee)



# Teaching—Improve your feedback



**WARNING: Feedback Sandwich could be bad for your educational health if perceived as manipulative or disingenuous and can be distracting from intended message.**



# Teaching—Improve your Feedback

- Try the Situation-Behavior-Impact model of feedback followed by actionable suggestions. Encourage two-way feedback.

**S**

Today at sign-out...

**B**  
...you didn't provide clinical and radiologic information for your brain tumor cases.

...you counted mitoses on every slide of a meningioma case and found a mitotic hotspot.

**I**

This could have resulted in an incorrect workup and diagnosis, leading to the patient receiving suboptimal care.

This resulted in the correct grade, which will be helpful to the oncology team in selecting the correct treatment.

**A**

Try writing the information on the paperwork so it isn't omitted in the future.

Continue being diligent in your cases—your work truly makes a difference to patient care.



# Research and Scholarship




# Research and Scholarship—Know what counts


- Not all scholarship is created equal in the eyes of the Promotion and Tenure committee:
  - Do case reports, review articles, and book chapters count for promotion?
  - Are H-index and impact factor considered?
  - Do I need to be first, second, or last author?
  - Do I need external grant funding to keep my job?



# Research and Scholarship—Know your role, project expectations, and authorship status



Could you please send photos of this interesting case that I had on service? I'm writing a case report.



I'm happy to help, but I will need to be included as an author for my intellectual contribution.

Would you please count all the mast cells associated with these 200 schwannomas? I can't pay you, and the journal doesn't allow any more authors for this article type.

No



# Research and Scholarship—Challenges

- Neuropathology research often requires substantial costs that may not be available at your institution
- Work with what you have
  - Keep track of interesting cases; a series might just develop
  - Learn about basic and translational scientists in your institution and possibilities for collaboration (if this is of interest to you)
  - Investigate library resources for scoping reviews and systematic reviews
  - Consider educational and curricular based publications in PubMed indexed journals
    - MedEd Portal
    - Academic Pathology



# Research and Scholarship—Other Benefits

- Just because a publication type doesn't count for promotion doesn't mean it isn't of value
- Case reports, review articles, and book chapters can
  - Increase your knowledge and expertise
  - Facilitate positive working relationships with colleagues from other institutions
  - Help other pathologists and academicians (especially if open resource)



# Research and Scholarship—Plan your time and be efficient

- Set goals for yourself every year
  - At least 1 article type that satisfies promotion criteria
  - Additionally, you may strive for
    - 1 collaborative work as middle author with colleagues
    - 1 book chapter or review that interests me
- If you submit an abstract to a conference, write the manuscript
  - If you don't feel an abstract could be published as an article, it may not be worth submitting to the conference



# Leadership, Administration, and Service



# Leadership, Administration, and Service—Local Efforts

- Set expectations
  - You probably won't be leading a committee your first year
  - The committee you really want is probably full (and no one is retiring)
  - Your new institution or practice may do things very differently from your previous place of training
- Contact a representative in your faculty affairs office to see what is available
- Don't overcommit, but don't refuse all involvement
- Find one thing you are (at least a little bit) interested in and do a good job
  - Positive involvement builds experience, strengthens trust in you as a professional, and leads to future opportunities



# Leadership, Administration, and Service—Personal Efforts

- Administrators and leaders are always looking for people with these qualities
  - Hard-working
  - Get along with others
  - Results oriented
  - Seek opportunities to help
- If you are interested in future leadership, let people know



# Leadership, Administration, and Service—National Efforts

- National involvement counts
  - AANP committees and involvement
  - Editorial board service
  - Peer reviewer for journals



# Professional Recognition



# Professional Recognition

- Before promotion to associate professor, the promotion and tenure committee will likely require
  - 3 letters from full professors attesting to your contributions to academic medicine in your field
  - Written by authorities outside of your institution
  - Who haven't trained or employed you



# Professional Recognition Depends on your National Involvement



# Final Factors that Matter



# Mentorship Matters

- Find a mentor for each domain: clinical service, teaching, research/scholarship, leadership/administration/service
- If there is not formal mentorship, consider developing your own program
  - Propose regular meeting schedule
- Consider mentors with AANP and other national organizations
- Mentorship relationships often matter more than formal training programs



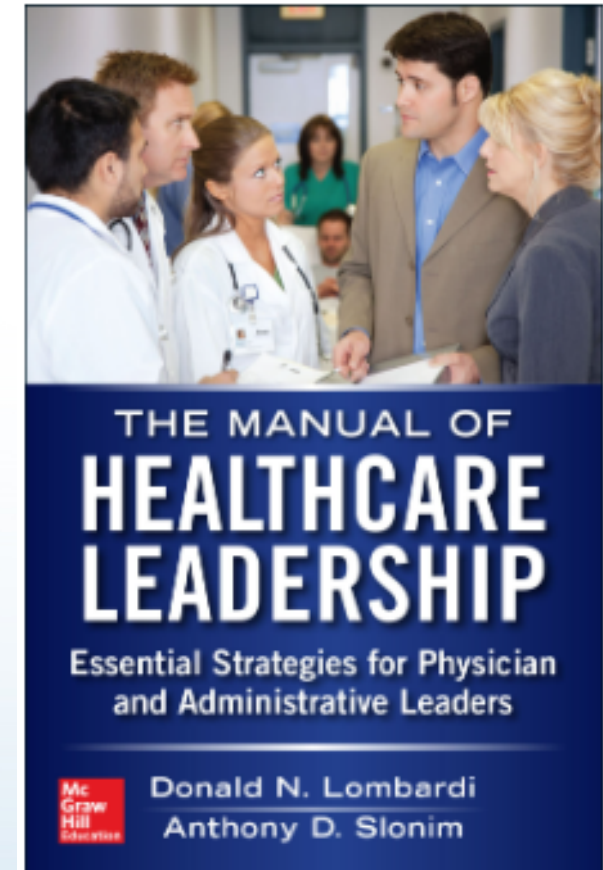
# Culture Fit Matters

- Contribute to a positive and productive work environment
- Be constructive in criticism and choose your battles
- Consider how a change effects the entire department and hospital, not just you
- Use established chain-of-command
  - Don't go to the chair when you haven't discussed the issue with the surgical pathology director



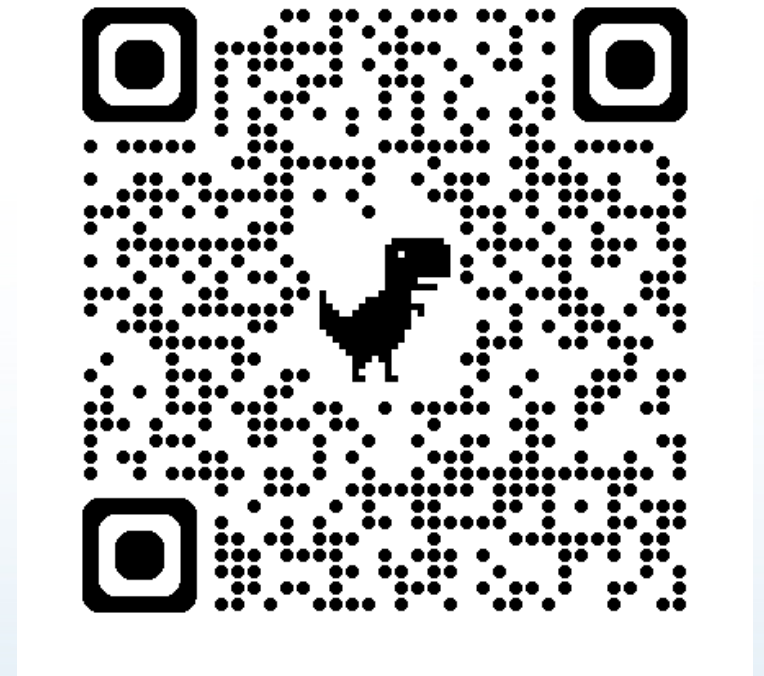
# Culture Fit Matters

- Avoid office politics because they
  - Inhibit productivity
  - Stifle creativity
  - Cripple teamwork
  - Alter communication
- If you are directly involved
  - Prioritize clear and direct communication
  - Consider seeking advice from supervisors
  - Gather documentation



# Well-being and Resilience Matter

- Avoiding burnout isn't snacks in the break room
- Protect Against Burnout with AMA STEPS Forward
  - Step 1: Get Organized
    - Prioritize and schedule
  - Step 2: Think about physical state
    - Sleep, physical activity, preventative care
  - Step 3: Think about mental state
    - Know your mission, values, and emotion
  - Step 4: Connect socially
    - Find support or help
  - Step 5: Find meaning in and outside of work
    - Gratitude journal, volunteering, mindfulness
  - Step 6: Embrace joy
    - Enjoy something, from gardening to sports on TV
  - Step 7: Reflect and refine
    - Self-awareness is key, not guilt or shame



# Planning Matters: Consider your Academic Track and Effort Distribution

## Example Clinician Educator Effort Distribution

- 70% Clinical Service
- 10% Research
- 10% Teaching
- 10% Leadership/administration

## Example Academic Year Goals

- Perform clinical duties and improve
- At least 1 publication that counts
- 2-5 didactics or learning experiences
- 1 national and 1 local involvement



# Document All Efforts

- You will need to report your activities over the year at a performance evaluation
- Have everything documented and be prepared to discuss why particular efforts were meaningful
- Past activities and success will influence future planning and goals



# Succeed!



# Concluding Thoughts

- Envisioning how your career goals and values align with future jobs is the first step in long-term success
- Plan early how to distribute your efforts to achieve success in all domains of your future job
  - In academics, this usually includes clinical service, teaching, research/scholarship, and leadership/administration/service
- Strive for strong mentors for each domain of your job and meet regularly with your mentors
- Contribute to a positive work environment
- Maintain your personal wellness and work-life balance



# Further Reading 1

1. Christmas C, et al. Advantages and challenges of working as a clinician in an academic department of medicine: Academic clinicians' perspective. J Grad Med Edu 478, 2010
2. Jiang XH, Howell D. CV polymerase: A publication primer for young pathology faculty members. Arch Pathol Lab Med 141: 189, 2017
3. Domen RE, et al. Professionalism in pathology. Arch Pathol Lab Med 141: 215, 2017
4. Del Carmen MG, et al. Trends and factors associated with physician burnout at a multispecialty academic faculty practice organization. JAMA Network Open 2:e190554, 2019
5. Gross DJ, et al. The state of the job market for the pathologists. Arch Pathol Lab Med 144: 420, 2020
6. Suster S. Quo vadis American academic pathology? Ann Diag Pathol 61: 152027, 2022
7. Nina G, et al. Why faculty leaders leave a school of medicine. Chron Mentor Coach 7(SI16): 394, 2023
8. Newitt NV. From training to first jobs, can the transition be made easier? CAP Today Mar. 2024, p. 1
9. Karcher DS. The new-in-practice pathologist. CAP Today Mar. 2024, p. 9
10. KWON DH, et al. The secret life of junior pathologists. Challenges and future directions. Arch Pathol Lab Med 148: 836, 2024
11. Katsakhyan L, et al. Transitioning from trainee to practicing pathologist. A prospective multi-institutional survey of the challenges early career anatomic pathologists encounter when entering independent practice. Arch Pathol Lab Med 148: 1063, 2024
12. The Insider's Pocket Guide to Navigating a Faculty Career in Academic Medicine. Heather Brod, Kimberly Skarupski, Springer Nature, Switzerland AG, 2024
13. The Academic Medicine Starter Kit. A Faculty Factory Book. Johns Hopkins University, School of Medicine, Office of Faculty, 2024



# Further Reading 2

14. American College of Surgeons. SBI Feedback. American College of Surgeons, <https://www.facs.org/media/pshbyz4v/sbi-feedback.pdf>. Accessed 3 May 2025.
15. Constantinou C, Wijnen-Meijer M. Student evaluations of teaching and the development of a comprehensive measure of teaching effectiveness for medical schools. BMC Med Educ. 2022 Feb 19;22(1):113. doi: 10.1186/s12909-022-03148-6. PMID: 35183151; PMCID: PMC8858452.
16. Dealing With Politics, Problems, and Process. In: Lombardi DN, Slonim AD. eds. Manual of Healthcare Leadership: Essential Strategies for Physician and Administrative Leaders. McGraw-Hill Education; 2014. Accessed May 04, 2025. <https://accessmedicine.mhmedical.com/content.aspx?bookid=957&sectionid=53481388>
17. Gantwerker EA, Lee GS. Principles of Adult Learning: Tips for the Pediatric Otolaryngologist. Otolaryngol Clin North Am. 2022 Dec;55(6):1311-1320. doi: 10.1016/j.otc.2022.07.009. PMID: 36371143.
18. Individual Resilience and Well-Being. American Medical Association, <https://edhub.ama-assn.org/steps-forward/module/2702556>. Accessed 4 May 2025
19. Knowles, Malcolm, Elwood F. Holton III, Petra A. Robinson, and Corina Caraccioli. The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development. 10th ed., Routledge, 2025
20. Lehr HA, Bosman FT. Communication skills in diagnostic pathology. Virchows Arch. 2016 Jan;468(1):61-7. doi: 10.1007/s00428-015-1848-y. Epub 2015 Oct 19. PMID: 26481246.
21. Myers O, Vick K, Greenberg N, Sood A. Faculty Retention at a School of Medicine, 2010-2022. Chron Mentor Coach. 2023 Nov;7(SI16):388-393. PMID: 38187463; PMCID: PMC10768923.
22. Pérez-DE-Oliveira ME, Heerden WV, Motta ACF, Rodrigues-Fernandes CI, Romañach MJ, Agostini M, Gueiros LAM, Vargas PA, Lopes MA, Ribeiro ACP, Brandão TB, Almeida OP, Khurram SA, Santos-Silva AR. The need for communication between clinicians and pathologists in the context of oral and maxillofacial diseases. Braz Oral Res. 2022 Jan 14;36:e008. doi: 10.1590/1807-3107bor-2022.vol36.0008. PMID: 35081226.
23. Sanfilippo F, Powell D, Folberg R, Tykocinski M. Dealing With Deans and Academic Medical Center Leadership: Advice From Leaders. Acad Pathol. 2018 Apr 8;5:2374289518765462. doi: 10.1177/2374289518765462. PMID: 29662949; PMCID: PMC5894898.
24. Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. Online Readings in Psychology and Culture, 2(1). <https://doi.org/10.9707/2307-0919.1116>

