



**Texas Children's
Hospital®**

Baylor
College of
Medicine

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Nuclear Medicine Career Fields: Academia

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Acknowledgements:

- 15 years in academic medicine at 1 organization. Recently promoted to full professor. However, **not** an expert on academia!



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Academic Medicine Through the Years...

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Oslerian Era 1900-45

- Academic positions few, poorly paid
- Therapeutic tools limited
- Diagnostic skills, anatomic/clinical pathology, public health (immunizations, sanitation)
- Autopsy was the basis of most impt conference
- The “Professor” was the chair and the best clinician who consults on difficult cases
- Most medical research performed in pathology depts.
- Medical Renaissance Man: Superb Clinician, Investigator, and Teacher, very well-read



NIH Rapid Growth Era 1945-70

- NIH becomes premier training ground for academicians
- NIH is the financial engine for research medical centers throughout USA
- Faculty in academic med. centers grew exponentially
- NIH dollars 70-90% of budget in premier research centers
- NIH grantees become “kings,” allowed to eschew clinical or teaching duties as they were an impt source of prestige and \$\$ for the institution



Medicare-Medicaid Era 1965-90

- Academic Centers restructure due to newly available clinical revenues
- Clinical revenues readily available and allow for “cost shifting” to support research and teaching
- High revenue specialists (surgeons, pathologists, interventional cardiologists, radiologists) become “kings” and shape agendas of academic medical centers



For-Profit-Era 1980-?

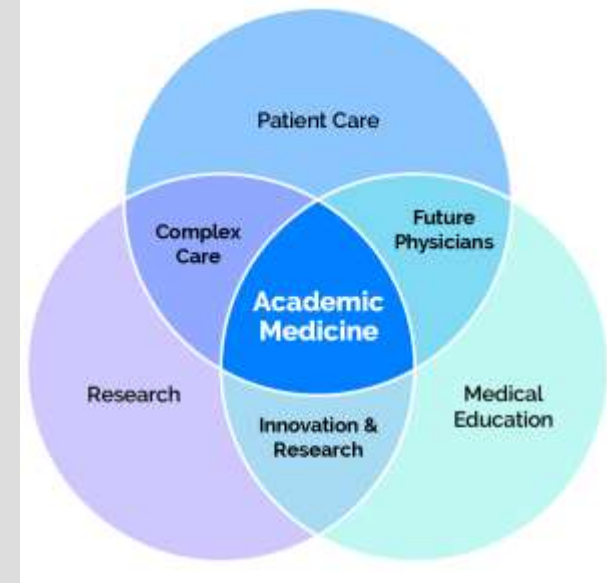
- Dominant forces:

Managed Care, Health Systems, Pharmaceutical, Biotech Industries

- More investigators competing for the same grants
- Industrial research has increased
- Clinical revenues declined steeply
- Academic institutions increasingly look to industry for support
- Academicians have seats on boards of for-profit companies, stock options, consulting contracts
- Clinical trials generously supported by industry; impt source of revenue for academic medical centers

Academic Medical Center's Mission

- ❑ Tripartite: **Education, Clinical Care, Research, (Administrative?)**
- ❑ Expensive, costs 10-20% more than non-academic centers
- ❑ Health Care reform initiatives disproportionately impact academic centers
 - Reduced payments to lower performing hospitals
 - Insufficient risk adjustment:
case mix, pt comorbidities, pt sociodemographics



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1. Fleishon HB, Itri JN, Boland GW, Duszak R, Jr. (2017) Academic Medical Centers and Community Hospitals Integration: Trends and Strategies. Journal of the American College of Radiology

2. Nuckols T, Weingarten S, Priselac T (2019) What Value-Based Payment Means for Academic Medical Centers. NEJM Catalyst.



Academic Medical Center's Mission

- ❑ In 1980's clinical care only **20%** of academic center revenues
- ❑ Today, clinical care accounts almost **80%** of total revenues

Extension of Clinical Services into the Community

Physician's Perspective

- Improve patient access
- Reduce disparity of care
- Offer subspecialty services to underserved populations
- Promote growth of Clinical Department

Extension of Clinical Services into the Community

Hospital Executive's Perspective

- ❑ Increase market share
- ❑ Increase revenue
- ❑ Lower expenses
 - Economies of scale
 - Serve large community population without full capital investment
 - Keep lower acuity procedures in community

Extension of Clinical Services into the Community

Hospital Executive's Perspective

- ❑ Improve asset utilization/productivity
 - Channel patients requiring advanced care to academic center

- ❑ Support the academic medical center mission

Reasons for pursuing a clinical academic career

6936 UK-trained doctors in clinical academic medicine, graduating in 1996, 1999, 2000, were surveyed

- Enjoyment of Academic Work/Personal Satisfaction
- Intellectual Stimulation
- Enjoyment of Research
- Teaching & Advancement of Medicine
- More Varied Job/Preferable to Clinical Work Alone



JOURNAL OF THE ROYAL SOCIETY OF MEDICINE

 JRSM open

 SAGE

[JRSM Open](#), 2015 Aug; 6(8): 2054270415602644.

PMCID: PMC4562380

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Making clinical academic careers more attractive: views from questionnaire surveys of senior UK doctors

[Trevor W Lambert](#), [Fay Smith](#) and [Michael J Goldacre](#)

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Ways to Improve clinical academic medicine

- Improved Pay & Job Security
- Better Funding of Research
- Greater availability of Academic Posts
- More Dedicated Time for Research/Off-Clinical Time
- More Support/Mentoring
- Women More Likely than Men to Prioritize Flexible Working Hours/Part-Time Positions

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Need for “balanced” academic clinical faculty

Old “Osler” model 33/33/33% clinical, research, teaching not viable

Need for clinical productivity (\$), strategic approach to research, awareness of burnout, work-life balance, D/E, causing Academic Chiefs to act like finance portfolio managers

- 100% Clinical Role (generates \$ and enables others to have research time)
- Educator Role
- Research Role (track record of success earning grant \$\$)
- Dabblers (does a little of everything)
- Part-timers (generates \$, enables others to have research time, stability of faculty)
- Administrator with subspecialty clinical expertise (Division Chief of Nuclear Medicine)



Faculty Pathways

The traditional criteria for selection of faculty are focused on teaching and research; however for medical education, clinical competence is essential for the majority of the faculty. It is becoming increasingly difficult to meet the demands of education, research, and patient care in such a way that a faculty member can excel consistently in all three areas. In order to carry out its societal missions, the College must achieve a **balanced** faculty which incorporates individuals that can **achieve excellence in two areas**, and in **some cases individuals who devote themselves predominantly to one area**. To achieve this goal of a balanced faculty, the College has developed an appointment, promotion, and tenure system which includes seven distinct faculty pathways.

- Basic Science Faculty
- Research Faculty
- Clinician Scientist
- Clinician Educator
- Clinician
- Faculty Educator
- Quality/Patient Safety

My take on an academic clinical career

- Pay attention to your own gut feeling
- Regarding salary, location, specific job, you will likely get 2 out of 3
- Academic clinical career offers varied opportunities for development in many areas, can sustain one's ***interest*** over decades
- An academic job may pay the same or better than a private practice job, particularly when considering retirement plans, \pm state/city income tax, ratio of clinical vs off-clinical time
- While exciting, supporting tripartite academic mission can be stressful (work-life balance)



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COMMENTS/QUESTIONS?