

# *Navigating a Neurosurgeon Research Career*

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# *My Path*

- **College – 4 years: UC Berkeley**
- **Medical School – 4 years: UCLA**
- **Residency – 7 years: UCLA**
- **Fellowship – 1 year: University of Tennessee**
- **Academic Faculty – 19 years: UCLA**

# *Neurosurgery Clinician Scientist Opportunities*

- **Spine**
  - Spinal Cord Injury
- **Brain Tumor**
  - Tumor vaccine
- **Vascular**
  - Stroke
- **Functional**
  - Epilepsy
- **Pediatrics**
  - Congenital abnormalities



# *Neurosurgery Clinical and Research Collaborations*

- **Spine** →
  - Spinal Cord Injury
- **Brain Tumor** →
  - Tumor vaccine
- **Vascular** →
  - Stroke
- **Functional** →
  - Epilepsy
- **Pediatric NS** →
  - Congenital abnormalities
- **Orthopaedics**
- **Oncology**
- **Neuroradiology**
- **Neurology**
- **General Pediatrics**



# *Beginning a Clinician Scientist Career*

- **Start with a research question**
- **Find a question(s) that:**
  - **Addresses a large knowledge gap in your field**
  - **Could potentially shift treatment paradigms**
  - **Has been understudied**
  - **Something that you find really cool**

# *Early career funding – what I did*

- **Several small intramural and extramural society grants**
  - CSRS (\$30K), Stein-Oppenheimer (\$20K), UCLA Foundation grant (\$10K)
- **Medical Philanthropy (e.g. grateful patient donations)**
- **R21**
- **RO1**
- **RO1 Competitive Renewal**

# *Pearls*

- **Align clinical and research interests**
- **Begin with short and long term goals – 3, 5, 10, 15 years**
- **Dig ten holes one hundred feet deep, not one thousand holes one foot deep**
- **Say yes to almost everything early in your career and then learn to say no later**

# *Pearls*

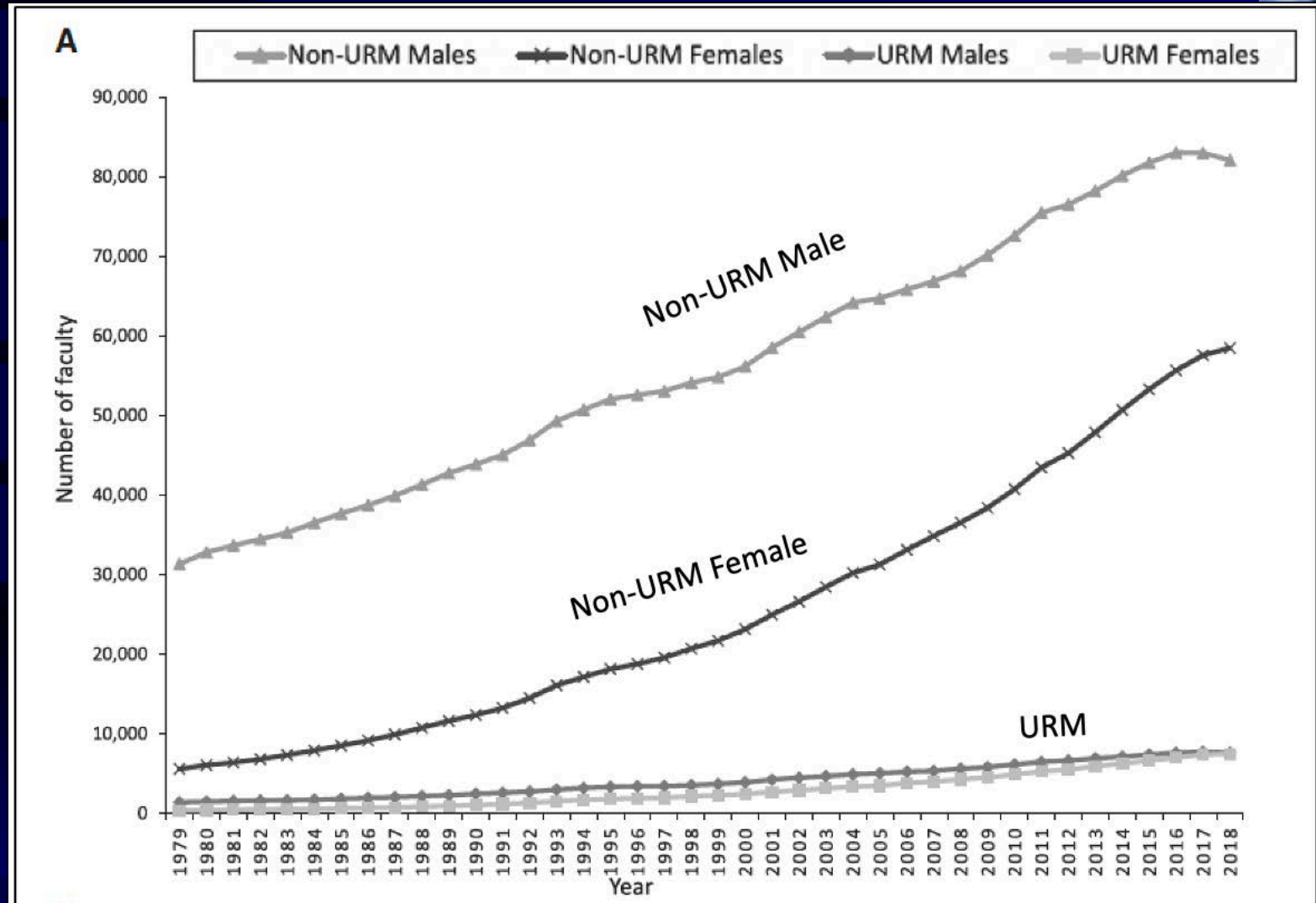
- **Find ways to collaborate and incentivize others around you**
- **Choose good mentors with similar interests but ultimately you will need to demonstrate independence**
- **The best work is through inspiration, not perspiration**



# *Diversity*

- **Diversity enhances**
  - **Innovation**
  - **Creativity**
  - **Collaboration**
  - **Overall performance**
- **Academic Productivity**
  - **Higher journal impact publications than homogenous groups**
- **Medicine – decreases healthcare disparities**

# Full Time Clinical Faculty in US Medical Schools by Sex and Underrepresented Status



# *Diversity in Neurosurgery*

- **Poor track record on diversity**
- **Only 6% of board certified neurosurgeons are female**
- **Less than 4% board certified neurosurgeons are Black/African American**
  - **Similar percentage of Latinx**
- **Intersection of race/gender – 0.6% are black females**

# *Neurosurgeon Research Career Development Program: K12 Program*

- **Goal - increase the number of neurosurgeon investigators trained to conduct research**
- **Apply before or during your first year as faculty**
- **Chair commitment of 50% protected research time for 5 years**
- **Recipients receive 2 years of salary funding - \$100k per year, \$50k per year for supplies**
- **Mentorship from senior neurosurgery faculty**
- **Annual retreat**

# *Neurosurgeon Research Career Development Program: K12 Program*

- **Successful since inception**
- **Challenges with attracting diverse applicants and awardees**
- **Significantly improve outreach and pipeline**
- **Increase touchpoints**
- **Virtual Seminar series**
- **Diversity statement**



*Thank You*