Time Management for Residents, Fellows, and Faculty in Academic Surgery

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The Goals of an Academic Life

- Appointment and Advancement
- Satisfying career
- Surgery and Clinical Care
- Research
- Teaching and administration
- Fame, respect, leadership opportunity
- Happy family life
- Financial stability/prosperity

Disclaimers:
Advice from a neurotic, obsessive-compulsive, fragile ego

Not enough time in the day
Not enough time in the years...

Topics

- Tips for the young surgeon-scientist resident/fellow
- How to streamline writing a scientific paper
- Time management for your first academic job

Key Point:
Your Ultimate Career Has Started Already. Plan Now.

Clinical interests
Research Focus
Reputation
Seven Steps from Burnett & Evans
1. Assess where you are.
2. Create your compass.
3. Track your energy and engagement for a few weeks.
4. Reframe problems in areas where you’re stuck.
5. Create three Odyssey plans.
6. Prototype.
7. Make a choice, then let go.

Advice for a Young Surgeon-Scientist:
5 Tips for Building a Lifelong Research Program

Why not start now?!

5 Tips for Building an Academic Program
✧ Become expert in one specific area and concentrate on it
✧ Pick an area of research no one else does
✧ Combine research with clinical interests
✧ Find a project that will lead to many related projects
✧ Build a team of excellent writers & manage closely

Tip #1:
Become expert in one specific area and concentrate on it

Rationale
✧ We are too busy to be experts in many areas
✧ Concentrating in one area allows you to dig deeper
✧ Builds international identity
✧ True expertise takes years of investment and commitment
✧ Time
✧ Patient experience
✧ Research resources
Clinical Goal

Interesting
Available
Surgical Problem

Technically Proficient
Reimbursed

My Practice

Scleroderma
Hand Ischemia

Microvascular Surgery
42 RVU's per case

What Not to Do

Rare Clinical Problem
Extremely Difficult Procedure
Not Reimbursed

Research Goal

Significant Clinical Problem
Preliminary Data and Novel Models
Fundable

My Research – Tissue Engineered Tendons

Soldiers with Missing Limbs

Track Record of Tendon Research
VA & DoD grants

Tip #2:
Pick an area of research that no one else does
Successful Examples in Plastic Surgery

- Ralph Manktelow & Ron Zuker: Facial Paralysis
- John Mulliken & Joe Upton: Vascular Malformations
- Bart Brent: Ear Reconstruction
- Fu Chan Wei: Complex Toe Transfers

Tip #3:
Combine research ability with clinical interests

Use all of your previous training and experience

My personal experience: early training

- Stanford University
  - Background in Basic Science Research
- Yale Medical School
  - Early RT-PCR research
- UC San Francisco Research Fellowship
  - Fetal Wound Healing Research

Plastic Surgery Career

- Plastic Surgery Resident: Interest in Hand Surgery
  - Problem of Tendon Adhesions
  - Mentored medical students, obtained preliminary data
- Assistant Professor
  - 1st major grant: TGF-Beta in Flexor Tendon Wound Healing
- Associate Professor/Professor
  - Problem of Tendon Loss -> Tendon Tissue Engineering
  - Clinical interest - complex tendon reconstruction

Goal of Tissue Engineering:
Produce construct similar to intrasynovial flexor tendon

- Scaffold:
  - Acellularized intrasynovial tendon
- Seeding Cells:
  - Tenocytes
  - Fibroblasts
  - Adult stem cells
- Bioreactor treatment
  - Cell
  - Tissue
Clinical Trial of Tissue Engineered Tendon

Tip #4:
Find a project that will lead to many projects

One paper projects

Radial forearm free flap for palate reconstruction

Multi-paper projects

CT Angiography in Microsurgery

Initial Experience
Long-term Followup
Complications
Pediatric

Tip #5:
Build a team of excellent writers & manage closely

Start now as a resident by engaging medical students/undergraduates
Goals for students & fellows

- Each fellow has specific projects to focus on
- Dedicate at least one year
- One sure thing, a few long-shots
- Finish paper before any presentation
- No orphan papers
- Guard against accidental plagiarism
- Follow advice for writing a paper: keep it simple!

Advice for Writing Scientific Papers

- Keep the paper simple
- Collect figures early
- Write out in plain language
- Do not correct or revise until the paper is completely written
Final Version

✧ Follow details of submission instructions
✧ Pay attention to grammar and spelling
✧ Review with a native English speaker
✧ Make it easy and simple for the reader (What is the one message you would like to convey?)

Addressing Revisions

✧ Review manuscripts to learn the process!
✧ Cut and paste critiques
✧ Address each critique individually, and reference in the paper
✧ Be polite, not argumentative

Goals

✧ Stable clinical practice
✧ Board-certification
✧ Research program
✧ Regional – National – International Reputation
✧ Satisfying personal life

Negotiating Your First Academic Job

✧ Clinical practice: Hospitals, OR time, clinic time, call schedule
✧ Research: Space, mentor, startup funds
✧ Salary & incentives
✧ Expectations: Timeline, protected time
Investment #1: Basic Science Laboratory
- Area of interest
- Seed grants
- Laboratory space
- Equipment
- Laboratory Manager
- Preliminary data
- Larger grants to build larger program
- *Beware of fruitless collaborations*

Investment #2: Clinical Research
- Area of interest
- Seed grants
- Office space
- Databases, Patient accrual
- Data Manager
- Preliminary data
- Larger outcomes grants to build larger program
- Excellent clinical research today is just as challenging as basic science research

Academic Advancement: Criteria for Promotion
- Assistant Professor
  - 5-10 papers from residency & fellowship
- Associate Professor (after 6-10 years)
  - >10 publications
  - Minor grants
  - National reputation
- Professor (after another 5-10 years)
  - >50 publications
  - Major grants
  - International reputation

Authorship Criteria for Promotion
- Being 1st author or last (senior) author is best
- Add other papers as contributing author
- Mix of volume and quality
- Good example: Dr. X@ Stanford
  - Proposed promotion to Associate Professor – 35 papers total (published or accepted)
  - 12 first author, 8 senior author
  - 3 in Tissue Engineering, 1 in NEJM
  - Rest in PRS, Annals of PS, JHS, JPRAS
  - All cited by Index Medicus

#1: Set up a Weekly Routine
- Build around block time & clinic time
- Budget in at least 1/2 day protected for career advancement
- Research
- Academic writing
- Lecture preparation
- Minimize trips in the day
- VA - Stanford
- Parking
- Protect this routine

#2: Update your CV constantly
- Inbox with new articles, abstracts
- Update all the meetings
- CV:
  - Presentations and publications
  - Grants
  - All lectures
  - Committee work
  - Journals reviewed
  - Research fellows mentored
#3: Be stingy with local meetings
- Avoid useless meetings
- Prepare for meetings (goals)
- Limit time of meetings
- Jam meetings into one day/evening for your convenience
- Medical students and residents - meet during your OR

#4: Organize travel meetings
- Work on airplanes and in hotels
- Catch up on late work
- Read journal articles, revise manuscripts
- Mini-retreats
- Return without being behind
- Plan next projects & deadlines
- Decide which travel meetings are most important
- Limit days at each meeting

#5: Use administrative assistants effectively
- Make to-do lists
- Establish timeline for tasks
- Integrate your assistant with your laptop, schedule, and email preferences

#6: Develop a national reputation
- Become known for one specific area
- Research: many papers & grants on one topic:
  - Clinical: one area for referrals
  - Specialty society committees
  - Lectures
  - Journal reviews

#7: Organize your briefcase
- Carry laptop at all times (one consolidated computer is critical)
  - Computer Desktop
  - CV
  - Research project spreadsheet
  - To do list
- File folders
  - Clinical case billing
  - Administrative tasks
  - Research
- Allows you to work between cases & meetings

#8: Build research program in the first 3 years
- Find a really good mentor
- Clone yourself
  - Major grant for funding of lab manager or research coordinator
- Medical students
  - Med scholars program
  - Interview and choose students carefully
- Beware of too many collaborations
#9: Multitask in the operating room
- Jam all cases into 2-3 days
- Work between cases
- Dictations
- Billing sheets
- Journal reviews
- Emails
- Phone calls
- Manuscript revisions

#10: Do everything only once
- Office desk paperwork
- Emails
- Manuscript revisions
- Clinic dictations
- Correspondence

Pick up items from the Inbox only once!

#11: Critically choose additional work
- Decide which tasks are important to you
  - Advancement
  - National reputation
  - Personal interest
- Income
  - Legal reviews
  - Consulting
  - Hourly advisor

#12: Worry about losing your family
- Be efficient so that you can preserve family time
- Block off family matters first
- Travel with your kids to meetings
Thank you and good luck!

Scenario #1:  
You have an case at 8 am at the VA and your undergraduate student at Stanford needs to go over research paperwork at 11 am at Stanford.

Scenario #2:  
A med student wants to meet to talk about career in Surgery.

Scenario #3:  
A local company asks you to meet regarding a research collaboration.