Starting off as a Tenure-Track Assistant Professor in a School of Medicine

Robert J. Bloch
Department of Physiology
University of Maryland School of Medicine
rbloch@umaryland.edu
Possible career paths

- Government researcher
- Industry researcher
- Publications/Media
- Intellectual Property
  - Patents
  - Tech transfer
- Administrative
  - Regulatory
  - University
- University faculty (School of Medicine, undergrad, other)
  - Not on the tenure track
  - On the tenure track
Non-tenure track

• Advantages
  – You don’t have to worry about staffing, teaching, or administrative duties.
  – Obtaining funded research grants may be optional.
  – Gives you additional time to develop results that (with approval of your [tenured] mentor) you can use for your own grant applications, to take with you to a tenure track position later.

• Disadvantages
  – You are not independent. (“glorified postdoc”? )
  – You have no resources of your own that you can devote to your research.
  – You may have to get funding to cover a significant part of your salary.
  – May last a long time, slowing your career.
  – May not be able to apply for your own grants until you leave the position.
Tenure Track

• Advantages
  – You are independent.
    • You have your own lab, get your own grants, control your start-up funds, recruit and hire your own staff, students, and postdocs, and you determine the direction the laboratory’s research will take.
  – The time frame and the requirements for advancement are usually well defined.

• Disadvantages
  – Starting out is difficult.
  – Funding is hard to get.
  – Tenure may not actually be what we understand it to mean.
How do you decide which tenure track position to accept?

- **Relationship with chair and administration**
  - Do you get along well?
  - Is your chair prepared to “go to bat for you”? Does he/she have the “pull” with the administration to get what you need as you start out, and later, if your needs change?
  - Are your chances of getting tenure poor or reasonable?

- **Resources and support facilities**
  - “Start up” funds
  - Initial salary commitments
  - Cores
  - Collaborations
  - Mentoring
  - Clinical vs Basic
Clinical vs Basic Science Departments (if you don’t do clinical work)

• Advantages to Clinical
  – Less formal teaching
  – Higher salaries
    • But higher % may have to come from grants
  – More resources in department (depending!)
  – Access to clinicians for collaboration, and to clinical samples

• Disadvantages to Clinical
  – Bar for tenure may be higher
  – Definition of tenure may be compromised by lower overall commitment to salary

• Advantages to Basic
  – More teaching, so more exposure to grad students
  – Higher percent of salary comes from school
  – Tenure decisions tend to follow more traditional academic path (though this may be changing)

• Disadvantages to Basic
  – Resources may be more limited
  – Formal teaching can be time consuming
What are “start-up packages” like?

• Rule of thumb: Make sure that you get what you need to establish a successful research program in the time covered by the package.
  – Details will depend on what you do
  – Typically, for “wet bench” science, 0.5 – 1 million $, total
  – Extended over period of, typically, 3 years
• “Protected time” usually lasts 1-3 years
  – During which your teaching and administrative duties should be kept to a minimum
• Salary commitments to you, + tech, student, etc.
  – Can be part of “start up” or additional; should last 3 years
  – Depends on whether you bring your own funding initially, and if so, how much and for how long
    • Try to negotiate what happens when that funding ends (e.g., end of a 5-yr K award), or what happens if there is overlap between your funding and your start-up account.
Salaries

• Salaries are usually set by the school and the department.
  – Typically, they are set at a level relative to the mean for a starting assistant professor, as published by the AAMC
  – Currently ~$90K/yr, plus fringe

• Once you are established, you are asked to get ~50% from grants.
  – More, as you move through the academic ranks
Negotiate!

• Make sure you go into talks with a prospective school or department with all the facts you’ll need about what you will need to succeed.
  – Equipment needed, and what it costs
    • How much does the dep’t or school already have?
    • Will it be yours or shared?
    • Do you have to write a “shared instrumentation grant” to get what you need?
  – Salary for personnel
  – Salary commitments to you over your start up period and thereafter
  – Your duties and the nature of your “protected time”
  – Space
    • Is it adequate for your needs? Is everything functional?
    • Are renovations needed? If so, when will they be done?
How big is the typical lab?

• 500 – 1000 sq ft.
  – “What do you need?”
• 1 tech
• 1 student
• 1-2 postdocs
• undergrad (?)

and you
Support Mechanisms

• Your chairman, program director, or center director
• Mentors, or a mentoring committee
• The administration
  – Career development office
    • Grant writing
    • Mock study section
    • Teacher training
• Core facilities
  – Does the school have what you need to succeed?
  – Can you get subsidized access as you are starting out?
Teaching

• Medical Students ("bright, motivated, engaged")
  – Lectures (20 hr prep/lecture for your first time if you are starting from scratch)
  – Small groups and problem based learning
• Residents (if you are in a clinical program)
• Graduate Students
  – Lectures, seminars, usually in team taught course
• Other professional students
• Typical teaching load is ~20 contact hr/yr combined med/grad/other students
  – Much more, if you teach Gross Anatomy or Histology
  – But typically less, at least in your first few years
Team Teaching

• All med school courses and nearly all grad courses are team taught.

• To succeed:
  – Follow guidelines set by the coursemaster
  – Be familiar with what comes before and what follows your classes
    • Coordinate your materials as closely as you can
Small groups and problem based learning

- Pleasant interactions with med students that can lead to lasting friendships
- Small groups: review problem sets based on lectures. Requires significant preparation first time round.
- PBL: Case histories with many points that students can choose to pursue and then present to the group. Little preparation needed.
“What is the job really like”

• “You have total freedom, but little time.”
• Surprisingly little time to be in lab. You’ll spend most of your time writing grants, in administrative tasks, planning direction of lab.
• “Chaos” – constantly having to make decisions without knowing if they are good or bad (e.g., instrumentation, hiring, organization of lab, dealing with administration and NIH, etc.).
“What is the job really like”: Don’t’s

• Don’t fret about a decision once you’ve made it. You can usually correct a problem later, if you have to.
• “Don’t toil away in isolation”. Seek help and advice whenever you can.
• Don’t spend time doing things that take you away from your primary goals.
• Don’t forget how much you know. You can apply this to helping your own trainees.
“What is the job really like”: Don’t’s for Women, especially

- “The number of hours you sit through seminars on “work-family” issues, panels on women in science, or attend committees or lunches devoted to these topics, is the number of hours you will fall behind your male colleagues. SCIENCE COMES FIRST.”
“What is the job really like”: Do’s

• Spend extra time your postdoc lab gathering data for your first grants (you won’t have the “leisure” to do this once you begin your new job). Make sure to get your PI’s permission and support.

• Be flexible about how you approach your grant proposals – take as many angles as you can think of, and then follow the directions that get funded.

• Spend time making contacts at your institution and in your field (e.g., inviting senior people to give seminars, “buttonholing” them at meetings, ...).

• Hire the right people, even if it means fighting with HR to get them; recruit the right grad students and postdocs.

• Collaborate, when you can do so to advance your own research goals

• Work closely with a few senior faculty with good mentoring skills.

• Focus on the important things: Funding and publications
What can you do now to prepare?

- Decide what “niche” you will occupy as an independent investigator with your own lab.
- Confer with colleagues and mentors about your choice and how best to pursue it.
- Get as much preliminary data as you can for grant applications.
- Have a “story” to tell when you interview.
- Polish your writing and speaking skills.
- Publish.
- Look at successful grants from other laboratories.
- Get independent funding (if you can)
  - K99 “postdoc to faculty transition
    - Puts you “in the driver’s seat” for interviews and negotiations.
What does it take to succeed?

- Be excited about and engaged in your work
- Focus on your niche and how to make it your own. The science is what counts!
- Hire and recruit with care.
- Seek advice and mentoring.
- Take teaching and community service seriously – But don’t let them take priority over your research
- Publish!
- Apply successfully for federal grants.
GOOD LUCK!!