



RUTGERS UNIVERSITY

Interdisciplinary Job Opportunities
for Biomedical Scientists

iJOBS Workshop: Applying to Biomedical Faculty Jobs

Research Intensive Positions

August 15, 2024



Panelists

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Topics to be covered today:

How to select a postdoc that will eventually help you land an academic career
Discussing with your postdoc PI the project that you will take with you and getting them to help you advance your career
What other things you should be doing during your postdoc to be ready to apply for faculty jobs
Deciding R1 vs PUI
Finding academic jobs to apply to
Preparing the research statement
Preparing the teaching and diversity statements
Preparing the job talk
Preparing the chalk talk
Preparing for the interview itself and tips
Negotiating offers
Setting up the lab
Filling your lab with students, postdocs and techs
Teaching for the first time and preparing classes
Service to the school
Preparing for tenure and expectations
Applying for K99/R00 grants

Selecting a postdoc that will help you land an academic job

- Consider what you want out of a postdoctoral experience, such as:
 - Expand your knowledge and skills by moving into a new field or learning a new technique
 - Learn leadership, management, and/or teaching/mentoring skills
 - Write/publish papers, learn grantsmanship skills
 - Engage in collaborative projects
 - Present your work at conferences and expand your professional network
- Search and interview for postdoctoral positions with these criteria in mind
- Ask questions and pay attention to what you learn from interviews
- Find a position and environment that will enable you to grow your skills and experience, as well as build up your publication record
- Remember that there is not always a linear path from graduate school to an academic job; be prepared to adapt along the way

Discussing which projects you want to take with your postdoc PI

- Start this discussion before you start your postdoc
- Be open in your communication: let them know your goal is to be a PI, that you expect to be able to take some projects with you, and ask your PI what their expectations are
- Generally, if you bring a new idea to your postdoc lab, the expectation should be that you will take at least some (if not most) of the follow up work with you
- If you are working on a project that your PI proposed, you should think about how you can make it your own OR also start working on ideas that are your own
- Best to not join a lab if the PI is not open to people taking projects (ask alumni from the lab)
- Ideal to work on projects that are field opening- so there are many follow up directions

Getting PIs to help you advance your career

- Be proactive- write fellowships and ask your PI to review drafts
- Offer to help PI with their grants to get experience
- Ask PI to nominate you for talks/seminars and attend conferences
- Ask PI to introduce you to junior faculty who you can talk to about applying to jobs
- Engage in your institution by organizing seminars, helping plan dept. events
- If your PI is not helping your advance your career, seek help from other mentors
- Although postdocs do not have structured committees, you can usually find other faculty who are willing to help and guide you
- If possible, do not go to a lab/institution where you are not supported to pursue your career goals

What other things you should be doing during your postdoc to be ready to apply for faculty jobs

- Publications and Funding
- Choose future directions: a clear vision, significance, and focus
- Keep learning, thinking, and discussing
- Develop good presentation skills
- Build your network
- Be confident

Deciding teaching vs research intensive

- Research intensive: they invest heavily in technology and research facilities. Faculty at research universities are encouraged to make research their top priority.
- Teaching intensive: they emphasizes student instruction, support, and success. Faculty at teaching universities are encouraged to make student instruction their top priority.
- How to decide: What motivates you? What do you need to succeed? What factors are important to you? What are your short– and long–term goals?

There's not an easier position. They're just different.

Applying for K99/R00

- Make a plan for submission timeline in your first postdoc year
 - Standard K99/R00 vs. "special" ones such as BRAIN Initiative, MOSAIC
 - Timelines may be different for above
 - Ideally apply early enough the first time so you can resubmit
- Is there a writing support group at your institution
 - Make a to do list for all the components
 - Keep track of timing, helpful to have a group to keep you on track and read material for feedback
- Research Strategy and Career Development section are both very important
- Aims that shows clear independence from your PI
 - Can be helpful to have co-mentors and collaborators who can help you with methods/topics outside PI's expertise
 - Be very clear about what parts are K99 vs. R00

Finding academic jobs to apply to

- Typical academic jobs cycle in the US:
 - Job postings typically start coming out in the summer and continue through the fall.
 - Postings peak from Aug-Oct, but new postings may continue to pop up through Dec.
- Where to find job openings:
 - Journal and scientific society websites:
 - Science, Nature, Cell all host sites for job postings
 - Conferences and networking
 - University websites (e.g. specific department websites)
 - Academic jobs online website: <https://academicjobsonline.org/ajo>
 - Social network sites (Twitter/X posts from departmental accounts)
- Read job postings carefully and review departmental websites to select which positions to apply to

Networking

- Don't be afraid of speaking up and introducing yourself at conferences or after talks
- There are no stupid questions
- Reach out afterwards with follow up questions or if you see a paper from them you like

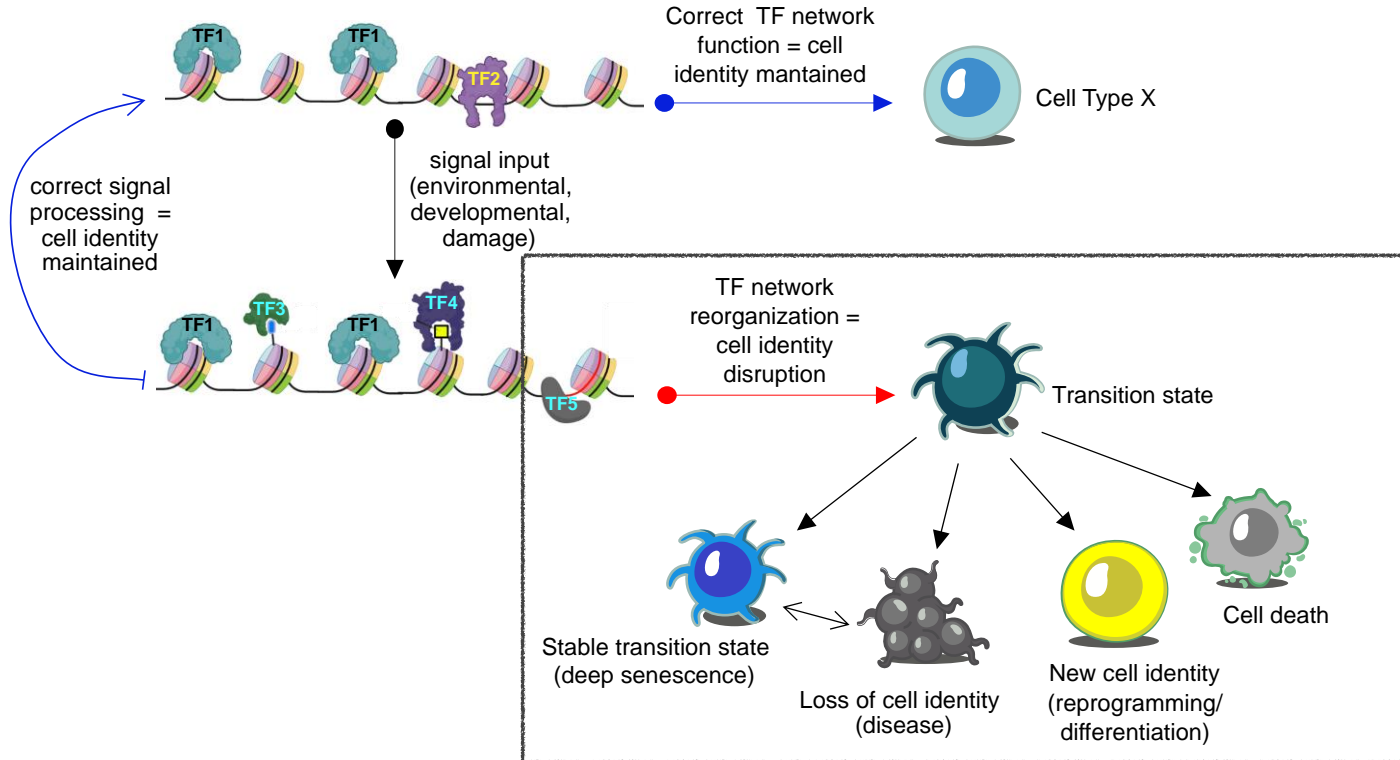
Preparing the research statement

- Should be focused on a concept/idea that has not been addressed in your field which ideally you developed independently from your postdoc mentor.
- Identify 3-4 big picture questions around your subject which you aim to solve once you establish yourself as an independent investigator.
- State a general experimental approach you will use to answer these questions.

Preparing the research statement

- Ideally, you should have some preliminary data of your proposed research program. This is critical to show feasibility and domain expertise.
- Each question of your research program you wish to address should represent an independent project.
- Ideally, your research program should synergize with your target institution/department.
- **Your objective is to draw interest and excitement from the recruitment committee to follow up on your application.**

Future research focus: TF networks in cell identity & disease development



Teaching Statement

- Who are you? What type of education have you experienced?
 - Did you like it? Would you do something differently?
- Have you taught before?
 - What type of class? What was your role? What was one positive and what is something that you learned and would change?
- What classes would you teach at that institution?
 - Are these graduate or undergraduate classes?
 - What experiences do you have that would make you good at teaching those classes?
 - What pedagogy would you use?

DEI Statement

- Tell your story (if comfortable) or your understanding of issues at large – be specific while touching on common issues: race, gender, social class, and sexual orientation.
- Write about what you've done to improve the environment for historically minoritized groups in the past
- Talk about your plans and commitment to continuing these efforts at that institution
 - Does that institution have efforts already in place that you would tap into?
 - Would you create something new?

Preparing the job talk

- A job talk is a part of the on-campus interview for faculty positions, where you present your past and current research
- A good job talk will highlight not only your research, but also your teaching and communication skills
- The total length of the seminar is usually 1 hour, but you should always leave time for Q&A
- Know your audience (usually quite broad), and tailor your talk to them.
- Remember to put your presented results in a larger context; explain the significance of your research and its potential for the future
- End with a brief overview of what you plan to do in your future lab, and why you and your research would be a good fit for this particular department/university
- Practice your talk with others to get feedback and to refine the timing
- Do **not** go over time; know what slides to skip if needed

Preparing the job talk

- There are many great resources online that can provide different perspectives:
 - Faculty job talk overview (MIT EECS): <https://mitcommlab.mit.edu/eecs/commkit/faculty-job-talk/>
 - Faculty job talks: tips from faculty (MIT EECS): <https://www.eecs.mit.edu/career-opportunities-at-eecs/faculty-job-talks-tips-from-the-faculty/>
 - Interviewing for a faculty position (UCSF): <https://career.ucsf.edu/gsp/interviewing-faculty-position>
 - Preparing for the Academic Job Market – How to Prepare For An Academic Faculty Position Interview (Dr. Ellen Bass, Drexel University): <https://www.youtube.com/watch?v=5JGUEJTG534>
- Learn from going on interviews and giving job talks
- Lastly, remember to enjoy it! A job talk can be stressful, and it helps to remember that this is a great opportunity to share your work and interests with a broader community of scientists.

Preparing the chalk talk

- The chalk talk is your chance to show the faculty at your target institution that you will be able to establish and execute a successful research program.
- You should be in complete domain of the technical and conceptual aspects your program, the research that helped build it and the state-of-the art on your field.
- You should do your due diligence and identify who is likely to be present.

Preparing the chalk talk

- A good structure is to describe ongoing, short-term and long-term projects from both experimental and conceptual standpoints.
- Be prepared to be interrupted with questions but remain in control of the room. Back and forth with the audience is typically a good sign.
- Be prepared to describe the aims of an R01-equivalent project.
- If you do not know the answer to a question it is OK to say 'I don't know at this time' or 'We are looking into it', etc.
- **Looking insecure and shaky during the chalk talk is a killer. You should be as prepared as humanly possible.**

Preparing for the interview

- Read up on the department, labs, and (to a lesser extent) the university
 - You should know the kind of science the department and how you fit in
 - If people outside the dept. do relevant work, ask to meet with them
 - Enthusiasm for the science going on at the institute and your future in it goes a long way
- Be prepared to chat with lots of faculty, grad students, and postdocs
 - Interview days are full of back-to-back meetings, be mentally prepared to be ON the whole day
 - The better your conversations with people, the more memorable you will be.
 - Read papers/abstracts of the faculty you meet with. It is very important for 1-on-1 faculty meetings to go well. You want faculty to be excited to speak up for you when deciding on candidates
- Reduce uncertainty/stress
 - Bring things with you that will make your life easy: markers for chalk talk, water bottle, snacks, any cords you need
 - Dress comfortably/semi professionally (the goal is mainly to NOT worry about whether you wore the right thing)
- Really engage with the people you meet
 - Everyone is looking for a colleague that would enjoy working with and/or collaborating with

Negotiating offers

Ask for what you will need in order to be successful.

- Know your needs
- Find out the real costs associated with *research* (equipment, core facilities, research animals) *and personnel*
- Research the typical salaries/startup packages for each type of academic position, department, institution
- Leverage competing offers to get what you need
- It is critical to get all negotiated items in writing
- Stay grounded, be genuine and positive

Setting up the lab

- Prior to joining, you should already know what equipment/materials you need to purchase. If possible, work with your institution to purchase large equipment prior to your arrival (delivery times can be long).
- Ideally you should arrive with an ongoing project that you can kickstart quickly after arrival. Getting preliminary data for proposals shortly after your arrival can give you an advantage.
- Decide on what staff you want to join your lab prior to arriving. If recruiting postdocs, work with your institutions to post ads on high-reaching services like Nature jobs.

Filling your lab with students, postdocs and techs

- You will be the most experienced lab member for quite some time.
- Hiring is costly; make decisions wisely.
- Hiring a good postdoc is challenging.
- Students are often drawn to new PIs. Being a Ph.D. mentor carries significant responsibilities.
- Have a PCR (Positive Cycle of Reciprocity): training – practicing – achieving.
- Starting with a lab tech can be very beneficial.

Teaching for the first time and preparing classes

Course planning:

- *Establish what you want your students to learn*
- *Consider your expected enrollment*
- *Begin the process early*
- *Develop assignments that will help your students advance their thinking and engage*
- *Establish the course policies*
- *Check out your classroom and any available multimedia*

Before, During and After Class:

- *Prepare*
- *start on time, and end on time*
- *Interact with students*
- *After each class write down notes on how it went*
- *Be accessible and proactive*

Do your research: Your colleagues can provide helpful insights about teaching specific courses and about teaching in general

Service to the school

- Initial focus on research.
- Start with less important roles.
- Pursuing interests.
- Offering help when possible.