



RUTGERS

School of Graduate Studies

iJOBS Workshop: Applying to Biomedical Faculty Jobs

Research Level 1 Institutions

July 13, 2023



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

Panelists



Conor McClenaghan, Assistant Prof
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Deciding between R1 and PUI faculty jobs

How much do you want research vs. teaching to be your main focus?

R1	PUI
Teach ~0-1 courses/semester	Teach ~1-3 courses/semester
More specialized teaching	Teach wide range of courses
Main criterion for success (e.g., tenure and promotion) will be research, few rewards for teaching and service	More balance and flexibility among research, teaching, and service activities
Research will involve graduate students, postdocs, or other research staff	Research will be oriented toward undergraduates
Larger startups (initial funds to start research)	Smaller startups
A lot of focus on applying to grants	Much less focus on applying to grants
Usually large and more impersonal departments/institutions	Usually smaller and more personal departments/institutions
Almost certainly will need substantial postdoc experience	Probably still need postdoc experience, but may also apply to visiting assistant professor positions for more teaching experience

How to choose a postdoc position?

#1 goal: choose a mentor who will prioritize supporting YOUR career!

More important than the specific project, area of research, institution

Think honestly about the kind of mentoring you need to be successful



A lot of independence or hands-on?
Blunt feedback or positive reinforcement?

Assess the mentor's track record of previous postdocs, ideally talk to them yourself (but beware selection bias and effect of mentor's age)

How to choose a postdoc position?

What do you want to get out of the position?

Develop projects in certain area of science

Learn specific skills

What kind of group do you want to be in?

Big vs. small

Postdoc-centric vs. student-centric

Institutional environment: type of department/university, medical school or not

Level of collaboration within and outside group, access to other mentors

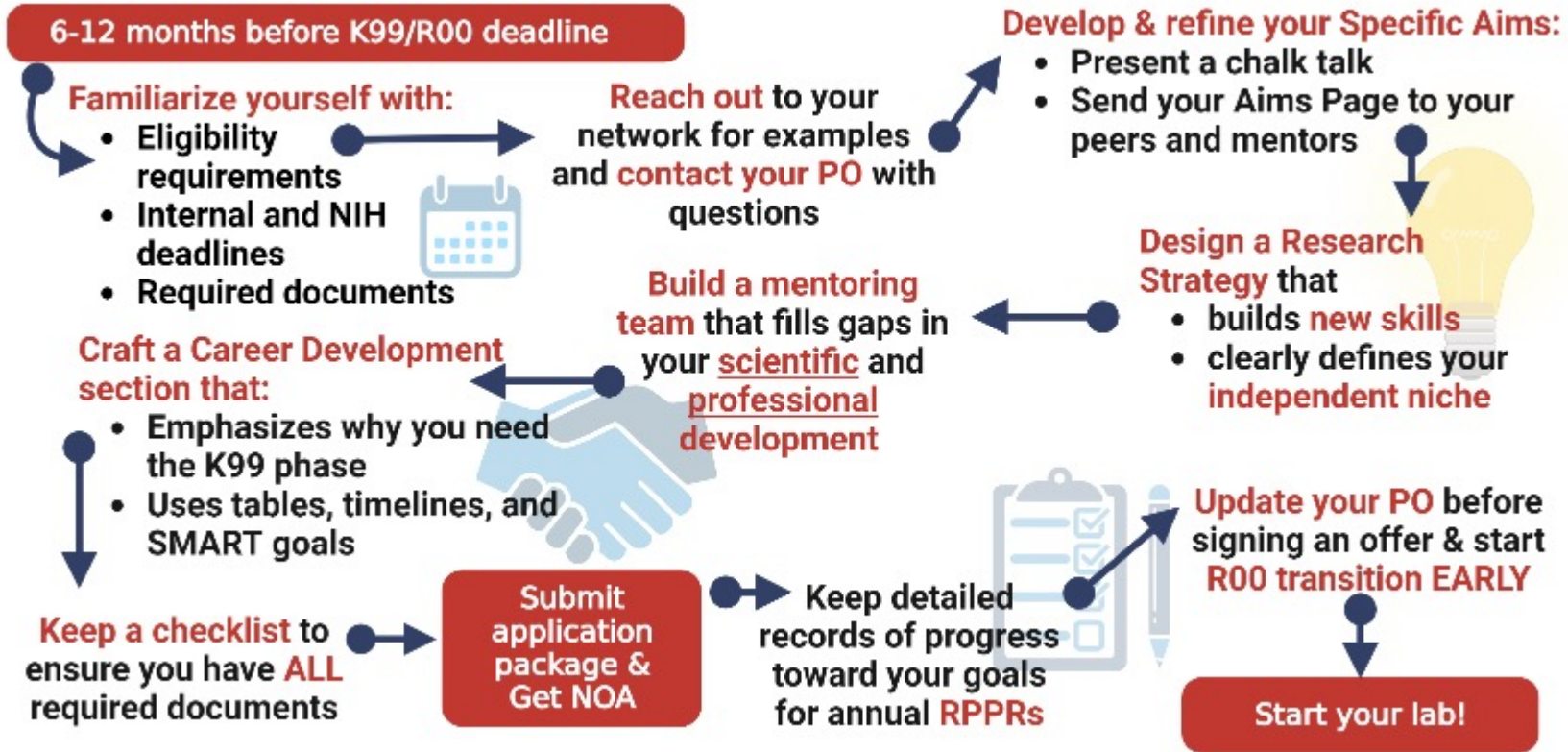
Taking your project with you (?)

- Have the conversation early and often!
- Clearly define boundaries
 - Ask your mentor to put these things in writing in LOR and fellowship applications.
- If conflict arises, try to carve out a new niche or consider changing research directions.

What to do to prepare for faculty applications

- Create a plan as early as possible
 - Discuss with mentors and colleagues
- Demonstrate consistent professional productivity (papers, patents, software, conference presentations, etc...).
- Demonstrate ability to secure outside funding.
- Gain experience teaching.
- Network!

Applying for K99/R00 Grants



Finding academic jobs to apply to

- Resources for advertised positions: nature jobs, science jobs, twitter, go on departmental websites, colleagues
- Build an excel spreadsheet with:
 - The position/university/department
 - Deadline for submission
 - Documents you need to prepare: cover letter, research statement, CV, teaching statement
 - 3 recommendation letter writers
 - People you know
 - Date submitted

Networking

Networking:

The action or process of **interacting** with others to **exchange** information and develop **professional** or **social** skills



Why network?

- Start a collaboration
- Share reagents
- Find a mentor
- Hire personnel
- Find open positions



With whom?

- Peers
- Early career researchers
- Experts in your field
- Scientific/professional society leadership



Where & when do I network?

- At conferences:
 - Poster sessions
 - After a talk
 - Designated "networking" events
- Departmental seminars
- Virtually



How do I network?

- Prepare a concise introduction & state your purpose
- Highlight common interests
- Ask questions
- Follow up

Preparing the research statement

Usually 3 pages:

- Title
- Overview
- Summary of previous and current work
- Future research statement: including 3 Aims (5 years plan ~ R01)
- Summary
- References (not included in page count)

Describes philosophy and approach to teaching (not just a list of experiences!)

Format:

- Typically, 1 – 2 pages (single spaced), but CHECK REQUIREMENTS. Be succinct!
- Use first-person (I), write in present tense when describing your approach (“I use...”, “I encourage...” etc.)
- Keep consistent with other materials
- Write clearly, double check (especially specific sections!), get feedback – workshop?

Content:

- Philosophy (1 – 2 paragraphs)
 - How do you/will you approach teaching
 - What do you prioritize when teaching?
 - What values do you try to embody?
- Experiences (1 – 2 paragraphs)
 - Pick experiences which highlight the story you are trying to convey. **SHOW** don't tell.
- Specifics (1 – 2 paragraphs)
 - How does your philosophy/approach complement the institution/department?
 - What are they looking for?
 - Search chair? Faculty profiles? Curricula? New ideas (limited)

This is a reflection of you as a candidate (even in research intensive institutions...)

Think, what do I want to bring to the department/school?
How can I convey this in a teaching statement?

Show you care:

“first and foremost teaching institutions and are looking for a commitment to teaching”
- Dean of College of Arts and Sciences, Duke University (<https://www.science.org/content/article/writing-teaching-statement-rev2>)

Show your strengths:

this person brings expertise, useful in teaching....but also elsewhere?

Show you've thought about what it means to be faculty:

“What resonates with me in a teaching statement is if the candidate is able to demonstrate how their teaching is “student-centered.” ... that the candidate has put thought into the student perspective - what skills students will gain from their class, what students should be able to do and explain after the class is over.

- I also look for evidence that the candidate makes an effort to:
- 1) **be inclusive:** A statement of the importance of recognizing why we need to have a welcoming learning environment and support ALL students is key for me.
 - 2) **be innovative:** understands the importance of using teaching techniques to promote active learning. *The best statements also include some specific examples or ideas rather than only general statements.*

- Malvika Kaul RWJMS Dept. Pharmacology

HELP! I Don't have any (much) experience?

Mentoring? Seminars? Non-traditional teaching? Experiences as a learner?

Further resources:

Rutgers CTAAR (Center for Teaching Advancement and Assessment Research)
Examples statements at <https://crlt.umich.edu/resources-publications/teaching-philosophies-statements>
Rubric at https://crlt.umich.edu/sites/default/files/resource_files/CRLT_no23Revised_Rubric.pdf
Discussion at <https://www.science.org/content/article/writing-teaching-statement-rev2>

Preparing the diversity statement

P1: Who are you?

- Write personally! What is your story? What has shaped your values?
- Emphasize your understanding of DEI and where it comes from
- Demonstrate an understanding that **diversity comes in many forms**
- ...and that **working on a diverse team benefits everyone**

P2-3: What have you done?

- Tell stories about specific relevant activities
- Let's name some activities together
- What did you learn? What did you give?
- How do your activities fit into your values and professional goals?

P4: What will you do?

- State your commitment
- List **specific** activities
- Relate these activities to your teaching and professional goals
- Make it clear how you will add value to the DEI mission of the department

Preparing the Job Talk



Preparation

- Outline your journey
- Research your audience
- Practice with a new and broad audience



Content

- Highlight your key contributions to the field
- Remember less is more
- Discuss how do you fit the team
- Mention collaborations where appropriate



Delivery

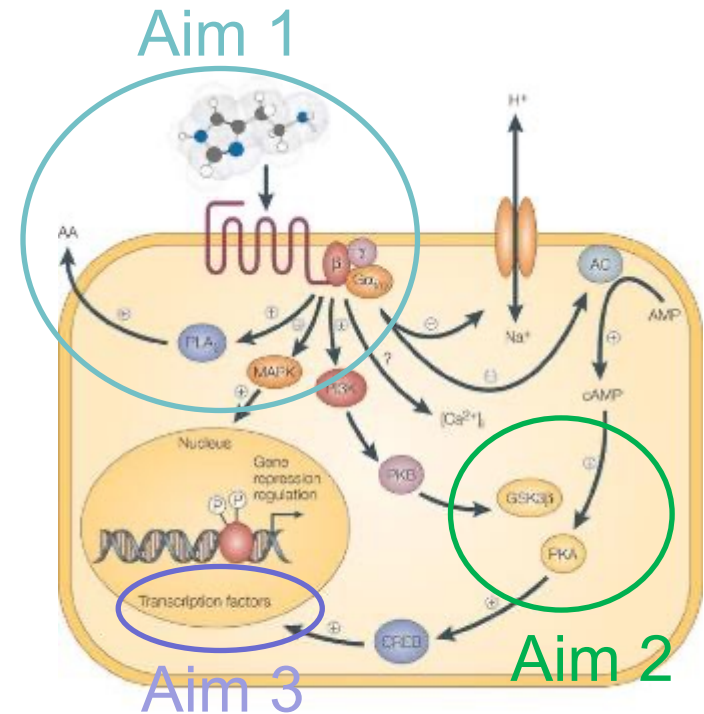
- Speak slowly & confidently
- Use transitions & pause when needed
- Repeat key concepts often
- Be prepared for interruptions

Preparing the chalk talk

- Ask the chair of search committee or your primary contact about chalk talk format and specific expectations
 - Audience
 - Length
 - Slides/whiteboard (bring markers)
 - Time to write/draw prior to starting
 - Specific content (e.g. R01 specific aims, big picture questions)
- Practice with your mentor and friends/colleagues
 - Time your self and try to anticipate questions

Preparing the chalk talk

- Plan the content
 - Clearly define the problem and the significance of the topic.
 - Give a brief background on your area of expertise and skills.
 - Absent other instructions, walk the audience through aims of 1-2 R01s.
 - Use diagrams/drawings and minimal text.
 - Finish with long-term goals and future research directions.



Preparing for the interview itself and tips

- Prepare the 5 minutes elevator pitch about you, your academic history and your research interests (what you achieved, what is your research plan), your teaching and mentoring experience, diversity
- Know how to answer: why are you interested in this institute and department, what do you need to start your lab and more here in this [useful link](#)
- Research everyone you are going to meet: their science and potential collaboration, and be prepared to talk to them about it
- Ask questions that interest you: about the position, students recruitment, teaching, lab setup, grant support, young faculty support

How to negotiate faculty job offers

General principles

Talk to your mentors!

Negotiations can vary a lot between different types of institutional environments (e.g., PUI vs. R1, different types of departments, public vs. private) and countries

Negotiation is cooperation not antagonism: you are working together to figure out the resources you need to be successful

It almost never hurts to ask for anything if you are honorable and can justify it...don't pre-emptively constrain yourself!

How to negotiate faculty job offers

Common parts of faculty job offers to negotiate

The Three S's:

Space,

Startup,

Salary

Lab and office, can be hard to expand later

Typically pays for initial equipment, supplies, and salaries in the first ~3 years

Don't forget this! It will set your base for the rest of your career...

Spousal hire

Special equipment or access to facilities

Teaching responsibilities (may be reduced in first year or semester)

TA/GA lines for your graduate students

Relocation expenses and housing assistance

How to negotiate faculty job offers

More detailed resources

Resources from UCSF: <https://career.ucsf.edu/gsp/negotiating/faculty-careers>

Burroughs Wellcome Fund: <https://www.bwfund.org/career-tool/academic-tenure-track-offer-letters/>

Science Magazine articles:

<https://www.sciencemag.org/careers/2005/02/academic-scientists-work-negotiating-faculty-position-0>

<https://www.sciencemag.org/careers/2001/08/be-honorable-and-strategic>

The Professor Is In blog: <https://theprofessorisin.com/2011/08/10/negotiating-your-tenure-track-offers/>

Before/during the job search

Plan:

- List – what do I need to pursue my plans? To develop new directions.
 - Can aid in choosing where to apply
 - Can help during screening interviews, visits etc
 - Where can you find the best resources – you don't need to buy everything: cores/collaborators
 - Tour your current lab – list what you use, brands, product numbers, take photos! Organize your constructs/samples etc – make them accessible to others after you leave!

Budget:

- Try to estimate costs for items you will need.
 - This can be tricky – prices not always available. Reps will help! Contact before/during applying.
 - Send lists of equipment, they can match
 - Create spreadsheet with estimated costs – helpful for visits, planning
 - Ask colleagues for their lists – there are always things you haven't thought of!

Further resources: Future PI Slack (use with caution!), second-hand equipment vendors (Marshall Scientific, LabX), Science Careers “Running Your Own Lab” Booklet, HHMI “Making the Right Moves” Booklet.

After the offer/starting

Purchasing:

- This is might be annoying....
 - Try to ensure your start-up funds can be used before your official start. Use PD time to maximal benefit – might have equipment waiting for your arrival.
 - Contact suppliers – ask for New Lab Discounts for *everything*. Especially with common vendors e.g. VWR, Sigma-Millipore, Fisher etc.
 - Ask colleagues if they have spreadsheets of ordered items (might have done the shopping around for you), common items are widely used.
 - **Prioritize**: You might be able to start some experiments earlier – think what you need first.
 - **Prioritize**: Is now the time to be counting every penny? You can always save later.... Get going!
 - Biggest savings on biggest items.
 - Be prepared to make some mistakes – returns are often OK! Try before you buy?
 - Look for old hand-me-downs – ask around!

How do you want your lab to function?

What projects do you want to start with?

- What skills are required? What prior training?

How much room is in your budget?

- Postdocs/experienced techs? Can provide significant advantages in training time (= money)...
- Ask for help putting together personnel budgets:
 - What is fringe rate, what are your salary expectations?

When do you want to bring people in.

- Consider, you may not have pipettes for months...Do you need someone immediately?
- If you do, start early! Can take months to advertise, screen, interview, and “onboard”.
 - Try and ensure you can begin the process before your official start date, if possible.
- Be nice to your administrators! You will need them!

What kind of lab are you trying to build?

- Be aware of the personalities, dynamics.
- Ask for references. People will be honest. Take heed! But use your judgement.

How much choice do we really have?

Finding great personnel is tough – and we are competing with many others. *Don't let perfect be the enemy of the good!*

- Look for a key skill (or skillset) in candidates. Maybe they aren't the dream candidate on paper, but do they have something to offer? It is our job to *train* trainees too!
- Use your network – personal connections can help

You need help. “Speculate to accumulate”, start-up funds may expire (though try to negotiate that they do not!). Don't just sit on your money - it will dwindle away.

Be prepared to be flexible. Can you make progress with undergrads? A tech versus a postdoc? Be prepared to fill in the gaps!

Creating the culture you want.

You know how it feels to be a student/postdoc. How can you maximize that experience for your trainees?

- Create a platform for their success
- Set realistic expectations and boundaries → communicate
Can set you apart from the crowd.....
Culture can be self-perpetuating

Teaching for the first time & preparing classes

- Each different teaching experiences will be very different
- Learn and leverage all the resources at your disposal!
 - Has this course been taught before?
 - Are there administrative resources?
 - Ask peers and mentors for help
- Utilize active learning techniques
 - Small groups
 - Peer instruction
 - Clickers
- Know your students – adaptive learning methods
- Make sure there are tools in place to receive feedback



Service to the school

- In your first year, focus on service activities with lighter time commitments
 - Faculty search committee
 - Lectureship committees
 - PhD and Masters committees
 - Leader for student clubs
- Attend organizational meetings
 - Faculty council
 - Department meetings
- Participate in organizational learning and networking programs
- Set up a meeting with the provost
- Ask your mentors and department head for service tips during scheduled meetings

