

## Interviewing for a PhD in the Biomedical Sciences

This document encapsulates Dr. Fried's insights and recommendations on navigating interviews for PhD programs in biomedical sciences. While the advice here is particularly tailored to this field, candidates applying to PhD programs in other disciplines may find parallels, albeit with some deviations. This guide is not exhaustive, but serves as a foundational resource to kick-start your interview preparation. It's important to note the significant shifts in the interview process across various institutions in the post-pandemic era, meaning your experience could differ markedly from the scenarios described herein. Nonetheless, this document offers a solid baseline for your journey.

**What to expect:** This interview will be unlike anything you've experience in life or seen on tv. It'll be a two-day whirlwind of meetings that is more about talking about science than it is about probing you as a candidate. If you go into with the mindset of being excited to talk about your science and the science at the institution, you'll be in a good starting position. That being said, you **MUST** prepare extensively to have these conversations. If you know alumni who are currently in the PhD program, contact them for tips and perspective.

- **Interview Structure:** You will be interviewed across two days by a diverse group comprising upwards of 3 students, 2 administrative staff members, and 8 faculty members. You'll receive your interview schedule as early as one week before the interview up to the day before. Clearly, if receiving the list of faculty the day before, you'll have less time to do your homework on them.
- **Faculty Interviews (Duration: 20-30 minutes):**
  - **Opening Question:** Often, interviews begin with a prompt like "tell me your story". This is your opportunity to provide a concise overview of your background and your journey to graduate school.
  - **Research Discussions:** Faculty members will likely discuss their research. This is not a passive listening exercise. Engage actively and respectfully, asking thoughtful questions.
  - **Project Synopsis:** You'll be asked to describe your main project. Prepare a clear, 2-3 minute summary.
  - **Future Plans:** Expect questions about your aspirations post-PhD.
  - **Program-Specific Questions:** Some faculty might inquire why you're interested in their specific school or program.
  - **Managing Nerves:** Most interviewers understand interview jitters and will try to ease your anxiety. However, be prepared for varying demeanors.
  - **Favorite Questions:** Each faculty member may have one or two favorite questions. These aren't meant to intimidate but to probe your thinking and personality. They could range from hypothetical scenarios to questions about your views on current research trends.
- **Social Activities:** There will likely be social events designed to showcase the campus culture, like dinners, theater events, or karaoke. Remember, while these events are informal, maintaining professionalism is crucial. Avoid excessive drinking, as students may report back to the admissions committee. Be mindful of the information you share in these settings.

**Understanding the Interview Questions and Their Intent:** Understanding the reasoning behind these questions will help you better prepare your answers. At the end of the day, they want you to be excited and knowledgeable about the research you're passionate about. Overall, the interview is a comprehensive evaluation of not just your academic prowess, but also your fit, commitment, and readiness for the rigorous journey of a PhD program.

- **Why the Questions Matter:** The interviewers are not only assessing your suitability for their program, but also your genuine interest and knowledge in your research area. Their goal is to gauge your excitement and understanding of the field.

- **Mutual Evaluation:** Remember, you're also evaluating them. They aim to impress and convince you to choose their program.
- **Assessing Fit:** Once you've been selected for an interview, the focus shifts from your qualifications to how well you fit with their program. They'll inquire why you chose their school, especially if it's in a unique location like a rural area. They need to know if you're genuinely interested or just considering them as a backup.
- **Research Environment Compatibility:** They'll check if their department's research areas align with your interests. For instance, if you're keen on neuroscience but they have limited faculty in that area, will you be happy?
- **Commitment and Decision Making:** Interviewers will meticulously scrutinize any inconsistencies or significant transitions in your academic or professional history to determine your true motivation for pursuing a PhD and your dedication to completing the program. They are particularly cautious of candidates who may view the PhD as merely a temporary phase or a stepping stone towards other professional endeavors, such as medical school, as these individuals are often seen as higher risks for not completing the program. If your background includes major shifts, like changing majors or career paths, interviewers will probe these decisions to discern whether they reflect a solid commitment to a research career or if they suggest possible future changes in your career trajectory. Given the substantial investment in each PhD student, typically ranging from \$50,000 to \$75,000 annually, including both financial resources and faculty mentorship, programs prioritize candidates who are likely to see their degree through to completion. Therefore, it's essential to clearly and thoughtfully justify any significant changes in your background during the interview, demonstrating that these decisions were a part of a deliberate journey towards a research career and showcasing your steadfast interest in pursuing a PhD. Effectively communicating a narrative of well-considered decision-making and a consistent commitment to research will reinforce your suitability and dedication to the program.
- **Mental Resilience and Momentum:** Your enthusiasm and mental readiness are crucial. They prefer candidates who are eager and not on the brink of burnout. They want to know the applicant is ready and excited for the next big step in their career.
- **Academic Aspirations:** They favor candidates with an academic inclination, even though most won't end up in academia.
- **Focus of Interview Questions:** In PhD program interviews, the approach diverges from standard job interviews. Rather than delving into situational or behavioral questions, the emphasis is on evaluating your scientific reasoning and depth of understanding of your own research. It's rare for interviewers to pose direct "quiz questions" aimed at testing factual knowledge. Instead, their goal is to ascertain your capability to think analytically like a scientist. They are interested in understanding the rationale (the 'why') and methodology (the 'how') behind your research. Expect to engage in detailed discussions about your project, which allow interviewers to gauge your comprehensive understanding of the work you've undertaken. Occasionally, you might encounter hypothetical scenario-based questions, such as speculating on different outcomes of your experiments and how they would influence your interpretations. The objective here is not to solicit flawless answers but to observe your critical thinking process and how you navigate complex scientific inquiries.
- **Student Interactions:** Your interactions with current students are vital. They will report back to the admissions committee. Be friendly, express genuine interest in their research, and inquire about campus life.
- **Handling Questions about Other Applications:** When asked about other schools you're applying to, be thoughtful. Your response can indicate your likelihood of accepting an offer from them. Smaller programs are particularly focused on understanding the likelihood of a candidate accepting their offer. They have limited

resources and positions, so it's crucial for them to extend offers to students who genuinely consider their program as a top choice. These programs often extend offers early in the recruitment process to entice committed candidates and minimize the risk of students using their offer as a backup or leverage against other opportunities. This aspect of the interview is designed to gauge your genuine interest and commitment to their program, ensuring a mutually beneficial fit.

- **Addressing Academic Blemishes:** Interviewers will likely ask about any lower grades or inconsistencies on your transcript. However, it's important to understand that this inquiry isn't a judgment on your intelligence or capability. Instead, it's a measure to assess how you might handle the academic load in their program. Graduate classes, such as those in Molecular Biology, often aren't inherently difficult in terms of content complexity. The challenge lies more in managing the volume of material. Graduate programs are intensive, and the coursework involves a substantial amount of content to be understood and integrated. Most graduate programs, especially in research-focused fields, have more infrastructure to support research activities than classroom learning. This means if a student struggles with coursework, there might be limited resources to assist them. The faculty's primary concern is whether a low grade is an indicator of potential difficulties in handling the academic workload. When addressing such questions, a confident and honest acknowledgment of past academic challenges, coupled with reassurances of your preparedness for graduate-level coursework, can be effective. It's beneficial to communicate that you're well-equipped to handle the classes and are more keen on immersing yourself in the research aspect of the program. This approach demonstrates both self-awareness and a clear focus on your research goals.

**Preparation Checklist for Your PhD Program Interview:** This comprehensive preparation plan will ensure you present yourself as a well-prepared, informed, and professional candidate, greatly enhancing your chances of success in the PhD program interview.

- **Essential Items to Bring:**
  - Always carry a notebook, pad, or professional portfolio. This will allow you to have notes prepared for each faculty member. I usually have a separate page for each person.
  - If staying overnight, pack three sets of clothes:
    - A professional suit or similar for the interview day.
    - Two business casual outfits for social events and as a backup.
- **Travel Tips:**
  - If flying, avoid checking luggage. Aim to pack light and efficiently so your travels between the airport go smoothly.
- **Preparation Exercises:**
  - Develop and practice an elevator pitch (30-60 seconds) for each of your research experiences.
  - Prepare a detailed description (2-3 minutes) of each research experience, covering the following. Keep it brief. They'll certainly ask questions that will turn it into a larger conversation. Remember, it's not a presentation:
    - Initial Observation
    - Posing the Question
    - Literature Review Insights
    - Hypothesis Formulation
    - Experimentation Method
    - Results Obtained
    - Interpretation of Results
    - Impact on Initial Observation/Question

- Proposed Next Steps

- **Documentation:**

- Have copies of your CV or other relevant materials ready. While they'll have their own copies, it's professional and shows preparedness.

- **Dress Code:**

- Wear business casual to business formal attire. Treat this as a formal job interview. Being too formal or too informal can be a drawback.

- **Researching Interviewers:**

- Familiarize yourself with the research of every interviewer.
- If the interview list is provided well in advance, review their recent research papers and abstracts. If provided shortly before, visit their websites and take note of their research focus.
- Prepare 3-5 questions for each interviewer. You're unlikely to have time to ask all questions, but being prepared to drive the conversation is good practice:
  - 1-2 questions about their specific research.
  - 1 question linking their research to yours.
  - 1-2 general inquiries about the program, lab environment, research ecosystem, or grants. This is a good place to demonstrate your understanding of academia by asking questions about which types of grants or funding agencies their students usually apply to. Check their Twitter or website for unique insights that could lead to interesting questions.

- **Topics to Avoid:**

- Steer clear of questions about work hours or stipend levels during the interview.
- Don't ask about controversial things you've recently seen in the news. Keep the conversation upbeat.

- **Post-Interview Etiquette:**

- Send a thank-you message to each person you interacted with, one or two days post-interview. You'd be surprised how much this helps and how seldom students do it!
- Keep the message concise, including:
  - A heartfelt thank you.
  - Specific insights they provided about the program.
  - Comments on why their research excites you.
  - How your experience or expertise aligns with the program or lab.
  - Express anticipation for the committee's decision.
  - Reiterate your gratitude for the opportunity.