

Question: If you could give one piece of advice to students preparing for their candidacy exam, what would it be? If your advice is somehow related to your Program, please tell us which Program you belong to.

Work on it every day Discuss the proposal with fellow students. The more you talk about it the more comfortable you'll feel

START WRITING! It's easy to say "I don't know even/I need to read more/I really should understand this nature paper before starting". Editing takes a long time! You can always incorporate more information as you move through the editing process, but there will be nothing to edit until you start writing. (If possible, try to have a draft you're reasonably satisfied with about two weeks before it's due. This will give you and whoever you've asked to review your proposal adequate time to polish) Concerning having your proposal reviewed by other grad students/post docs: quality is better than quantity. Don't send your proposal out to a million people. You'll get conflicting feedback. Identify 2-3 people who would be good candidates to review your proposal and ask in advance if they are willing to review it. Find at least one person who is an expert in your field (like someone in your lab). They will be really helpful in identifying weak points in the proposal (possible questions during the exam) shaping/clarifying difficult points, and making your figures as clear and intuitive as possible. Find one person who is NOT an expert in your field. They will help identify background points that need to be explained more clearly and identify any areas where the points don't automatically connect for someone outside of the field. Remember, not every person on your exam committee will be an expert in every facet of your proposal. On the day of the exam, go in with the mindset that this is a conversation. You are the expert in the room. Explain the problem, how you're going to solve it and its caveats, and don't get caught up in the fact that this is technically an exam.

Start working on your proposal early and practice. You can start working on your proposal before it's been approved by the Academic Standard Committee to give yourself as much time as possible to work on it. Send it to your friends and then make edits then send it to your lab mates or students in your program and then make edits and repeat as many times as you can. I highly recommend having an AMBR mock candidacy which requires you to have a draft for the mock committee 2 weeks before your proposal is due. Just having a hard deadline is a huge help and then having to prepare the presentation 3 weeks before your actual exam goes a long way in thinking about how to organize your proposal. Lastly, if you can practice for students or postdocs from the labs of the faculty on your committee. They will have questions that are very similar to that of their advisors.

Start thinking early (before candidacy starts). Start writing early (first few weeks of exam).

Start preparing early. Read as much as you can and keep your materials organized and make an outline of your proposal. I would recommend having several practice exams. It is important to get feedback about your presentation style and how you organize your presentation. Ask older students in your program and also ask people who are not in your program for their feedback. Do not be afraid to ask for helpful comments. On the day of the exam, be confident! Good luck!

Start doing your background reading early. For MID, I would say about 4 months before your exam at least because it takes a long time to review basics. For example, would you remember details about transcription, translation, DNA replication, gene regulation, biosynthesis pathways and so on off the top of your head? Unlikely. However, they are very general topics that are not exactly the focus of your thesis project. So you need to review those basics well before hand in order to better understand your thesis project, develop hypotheses, and understand experiments. You'll spend the months leading up to the exam focusing on a very small area in your field which is your thesis. You will therefore need to know the foundations well before hand. I would recommend charting out a curriculum for yourself. I started 4-5 months before hand and spent the beginning just review basic molecular biology. Then I delved into the foundations of bacteriology, then into enterococcal biology (the microbe I work on), then antibiotic resistance and mechanisms of action as a whole (I work on antibiotic resistance), then I slowly began to narrow down to my area of interest. For example, my thesis is on elucidating mechanisms of daptomycin resistance in multi drug resistant enterococci. So I had to start by focusing on daptomycin and learning everything there is to know there, then move to antibiotic resistance mechanisms in enterococci, then get a detailed understanding of all work that had been done already on daptomycin resistance in all gram positive pathogens (e. faecalis, e. faecium, s. aureus etc). You will also need to spent a considerable amount of time understanding the conceptual theory behind all experimental techniques you will use in your thesis as well as all techniques employed in your specific field. Does all this sound like a lot to cover in 2 months? It absolutely is. So start the foundations early. Then make sure you take 6 weeks off before your exam to only focus on your exam. DO NOT do bench work during this time, it will distract you and your mind will not be completely focused on one task. Lastly, do not freak out. Tell yourself it isnt a big deal. Believe me, if you know your project, you will pass. SO why stress? I firmly believe that the more relaxed you are on the day of your oral, the better you will do. By the time my exam rolled around, I had worked on it for so long, I basically stopped building it up in my head and thought it was just any other day. It felt like a rigorous seminar. That is all it is. You got this.

Off-topic candidacy exam: focus on the purposes of PhD training: it is not learning any specific skills (though they are important) but critical thinking. Make sure you understand the question and show them you know what to do when facing a new question or hypothesis (off-topic only). It is always more important about how to build the project, how you solve the problems you met during the project, and how to interpret the results.

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Meet the exam committee chairs as frequently as possible so that one might understand their criteria and expectation. Usually the chair would propose a guideline for exam once he or she knows the specific aim page of the proposal

Human and Molecular Genetics program. Practice, practice, practice. and get as many feedback as possible. You will save so much time by showing your work to your peers and postdocs. Be concise, gagging on an answer is usually a pet peeve to faculty. take a look at the evaluation for candidacy exam performance and make sure you can fulfill the expectations before the exam. If possible approach the exam in a methodological way, that will reduce stress. Focus on the end of the tunnel. (Post-candidacy life)

Definitely recommend to start early. Even if you are doing ON-topic exam, start early. This is because lot of exam members expect to see different aims from your thesis topic. If you find this out later in the process, like I did (6 weeks before the exam), then you will really have to push yourself to write a proposal that is significantly different from your thesis topic in the allotted time. Recommend having a proposal draft prepared 2-3 months in advance so that you get it critiqued by faculty, senior scientists who have experience writing successful grants. Do 2-3 mock exams at least for the sake of presentation and answering questions in the end. I get nervous during presentations, so this exercise definitely helped. Meet with your potential exam committee at least 4-5 months in advance of the time you intend to take the exam. Discuss what their expectations are from students taking the exam. If you think you can match their expectations, then consider/ask them to be on your committee. Have a chair who is going to help/be available to answer your doubts and concerns. Get your proposal critiqued as much as possible from 1-2 experienced senior scientists and faculty (not on your committee) who can help. Its embarrassing to have your work critiqued by people but it is definitely helpful in the final exam. You will end up having a well-written proposal and that will save you so much scrutiny in the real exam!

Choose a good chair with whom you will feel comfortable to contact about any unexpected issues and questions. Consider the time during the exam preparation to get feedback and practice. There will be a moment when practice is enough and you will realize it. It would be nice for the school to give some guidance on the plagiarism check as it is really scary and confusing to interpret (FYI, it is sent to all members, not only you and the school). I am from Cancer Biology Program. I can say the guidelines from both GSBS and Cancer Biology can be really ambiguous, with the aim of giving the students the freedom to choose I suppose but sometimes it makes it hard to know what is required then. So, each exam and process of preparation can be very different. It is just an exam in the end and don't worry about conditional pass, even the best students can get conditional pass and sometimes the condition can be very simple. Finally, the off-topic part of the cancer biology program should be reconsidered

As someone who has passed candidacy and helped other students pass, my advice is as follows: Ask fellow students, post-docs, research scientists, etc. to read your proposal and give you feedback, regardless of what their research interests are. Some of the most helpful comments I got came from people totally out of my field. This is especially true if your exam is on-topic, since your committee members likely won't be exactly in your field. If your exam is off topic, I highly recommend trying to find someone who is in the field that you've written your proposal on to get their feedback. Also, as a general rule, people are trying to help you - don't be defensive if they give you suggestions! Prepare in advance and practice, practice, practice! I highly recommend scheduling a mock exam with AMBR. Doing a mock exam with them is extremely helpful. Additionally, it forces you to have at least a draft of your proposal and your presentation well before your exam date. In addition to scheduling a mock exam with AMBR, practice with students in your program and your labmates. The more you practice the better! There are many excellent examples of the written proposal on the GSBS website - pick one and model your proposal after it. Make sure you include all the key components required for the proposal. The writing class is a huge help in explaining how to write each section of your proposal! On the day of your exam, be confident! It's not the time to try cramming last minute information. Be confident in your answers, but remain teachable throughout the exam and never make up an answer. It is okay to say "I don't know this, but I know this" or ask them to restate the question. Lastly, when it's all over - go out and celebrate!!! Best of luck! You're likely more prepared than you think you are.