

## How to select a PhD lab?

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**I regularly get this question from predocs. How do I select a PhD lab? How do I decide on a good supervisor? Should I select a lab based on a project? Below is a hodgepodge of the answers I generally give.**

[in no particular order]

- Build a network of mentors and colleagues who can candidly advise you. Make sure that your network includes people at various career stages. Ask them the questions above and seek their feedback on your choices.
- Identify a general topic that inspires you. A PhD is a long adventure. You want to wake up in the morning and be inspired by your project and excited to go to the lab.
- Pick a topic that keeps you up at night and makes you dream. If no science topic makes you dream, then perhaps you should consider other options than a PhD.
- Do not get too specific with the research topic. The key to a successful PhD is the balance between an inspiring project and a good fit with your supervisor and lab mates. If you aim at a career in research, you'll have plenty of time to change directions later on. Many (most?) research scientists end up working on topics different from their thesis.
- Once you identify a lab you like, do your homework. Do you like what they publish. Do you like the general vibe of the lab. Is this an interactive team-spirited lab. What about the extracurricular stuff.
- Where are the lab alumni now? Have they moved on to successful careers. Are those the career paths that you aspire to.
- Make sure to visit the lab. Talk to people who work there. Ask around about the lab and may be even seek out alumni for their perspectives. Has the PI facilitated their career development.
- Check the lab on PubPeer.com. Reputations matter.
- Don't get charmed by big labs with big papers and big bucks. A good PhD supervisor is first of all a caring mentor who contributes to the overall development of their students beyond lab work. Sadly, in biology, many PIs treat their students and postdocs as just a pair of hands. Avoid such labs even if they are productive.
- Be aware that PI careers evolve and not necessarily in the best direction. A lab that may have been an amazing environment at one point may not be so at the moment. As PIs get more established their style may change. Influential students and postdocs move on. Try to get a sense of the lab momentum and take that into account when making a decision.
- If you're unsure which direction to go or which lab to join, consider a rotation program. That way you get to experience multiple labs and styles before making a final decision.
- Be aware that if things don't work out for a reason or another after you join a given lab, you can quit and move on. Nothing dramatic into switching labs after you start a PhD (or postdoc for that matter). Better move on than get bogged down in a difficult situation.