How to choose a dissertation advisor

❖ Need to find an advisor that fits personality and goals

❖ This person is a guide to your research so he/she must have the time and energy to be available for you

❖ Dissertation advisors should teach you how to:
  o Ask important and interesting questions
  o Translate these questions into experiments with verifiable results
  o Critically evaluate the results of experiments
  o Present ideas and data to the scientific community in written and oral form

❖ A good advisor will also be a mentor who:
  o nurtures your career and personal development
  o acts as a confident
  o shares interest and knowledge
  o challenges you, spends one-on-one time with you
  o helps you develop an individual career plan
  o introduces you to other key scientists

❖ As a good student, you should:
  o establish and maintain a philosophy for high performance
  o have a positive attitude
  o have a clear vision of where you’re going
  o be proactive
  o set reasonable, attainable, and challenging goals
  o seek and utilize mentor’s advice
  o be accountable

❖ To choose a lab:
  o be familiar with all your options
  o meet and talk with faculty, postdocs and students
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- listen carefully to faculty presentations
- listen to student presentations (are the students accomplishing stuff?, do they know what they’re doing?, are they happy?)

❖ What to ask a prospective advisor:

- How much time do you spend with students?
- Who will supervise my daily activities?
- What are you expectations for student workload and time?
- Is the schedule flexible?
- How will I be funded?
- What lab space and equipment are available?
- How many people will be working on the project with me?
- How do you deal with deciding authorship and collaborative projects?
- Am I going to have to depend on a collaborator for equipment?
- How many students have earned a degree in your lab?
- How long did it take them?
- Where did they go after your lab and what are they doing now?
- What strategies do you use to help students hone their interests, refine their technical skills and develop independence?
- How do you guide students who are interested in pursuing non-traditional and non-academic career options?

❖ How to evaluate faculty prominence:

- publications- steady record of publications in good journals
- are other people citing the articles?
- 2+ papers per year without long interruption
- grant support- how long has he/she had it- has it been renewed?
- Is he/she on editorial boards, grant review panels, giving seminars, chairing sessions or organizing meetings, writing reviews?
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**Pros/cons of a Junior Advisor**

- Easier to relate to
  - Inexperienced
- Enthusiastic
  - Little track record
- Motivated to succeed
  - May not get tenure
- Cutting edge research
  - May be risky area of research
- Small labs
  - Limited resources
- Want/need students
  - Under enormous pressure
- Hands-on mentoring
  - Harder to develop independence (faculty gives too many directives)

**Pros/cons of Senior Advisor**

- Experienced and knowledgeable
  - Generation gap
- Significant track record
  - Beware of burnout
- Motivated to succeed
  - May depend on postdocs
- Established research
  - May be dated area of research
- Strong resources
  - Large labs
- Trained more students
  - May delegate supervision
- Can foster independence
  - May not pay much attention to you

Many outside responsibilities- may not be as available