

## Advice to graduate students and postdocs choosing whom to work for

1. Work for someone whose chemistry you can really enjoy and want to be doing 6 days a week, 10-12 hours per day. Consider very carefully if you like the chemistry of the group you will be joining. Ask yourself what is the purpose of obtaining a PhD. If you are not passionate about research and/or teaching then drop out of school immediately. If research work is not your number one priority during PhD program you WILL NOT be successful. There are easier ways of earning money than going for a chemistry PhD – don't do it unless you love what you do.

2. Talk to group. The following questions need to be asked.

a. Are they happy – ask as many people as possible since one negative or positive answer may not be representative.

b. What jobs do people from the group get, how many permanent jobs, and does the advisor actively help students find a job. The ultimate goal of a PhD is to get a permanent job, and if you do not, you have worked hard in vain. It is important to realize that not everyone even in successful groups will get a job; however, MOST people should.

c. Consider how the advisor runs the group. It may be hands-on (likely for assistant professors) and hands-off (for most, but not all, tenured faculty). Working for an assistant professor will give you more publications, more guidance, and more support; however, funding levels may be lower, and the prof will have less contacts - getting job may be harder. Choose the style you prefer. In any case, advisor should care about educating you and not only use you as a pair of hands.

d. Consider the length of PhD. While it depends on the exact field, some professors are famous for keeping good students for a long time.

e. Ask group how much independence on their projects they have. Can they pursue a related line of research they have discovered? Or are they bound to do only what has been given to them by the advisor?

f. Does the professor you are interested in teach graduate classes? If yes, how is he/she as a teacher? If his/her classes are a mess, it is likely that he/she runs his/her own research group in the same way.

3. Amount of papers is very important for obtaining a job but dependent on field. Check Sci Finder and see how many papers/year the professor you want to work with publishes. Too few papers means that it is unlikely that you will have papers even if you work hard.

4. Before joining the group inquire about funding levels. How much people have to teach? Are there difficulties in purchasing reagents and equipment? If funding is poor, you may find yourself not being able to achieve full potential because you will have to spend time teaching and will not be able to carry out all research that you want. However, you should not discount assistant professors – they will almost always have lower funding levels, but this will be compensated by greater involvement in your research.

5. Improve your English skills. Companies are unlikely to hire someone who does not speak English well. A related issue is the composition of the group. Be wary of homogeneous, non-American populated groups – your English will not be improved and you will not adapt to the culture of United States.

6. Postdocs – doing second and further postdocs, at least for an organic/inorganic chemist, is extremely undesirable. The only exception may be a foreign postdoc followed by a US postdoc. Consequently, you need to be successful in your first, or at most second postdoc. The question companies ask is the following - why did you not get a job after 1<sup>st</sup> PD if you are good? Furthermore, your postdoc should not be substantially longer than 3 years.