Some Advice for Prospective Graduate Students (For my lab or elsewhere)

So you're interested in applying to graduate school--that is great! Graduate school can be a wonderful and fulfilling experience. You want to find the best place for you and that means finding a school and, more importantly, an advisor, that work for you.

Here are some helpful hints that will help you get in to the best place for you and find an advisor that will be a plus for your future career. It's really important that you find someone with whom you can work well and whom you like and respect. You will have to work with this person for 3 to 6 years, so it's important that you get along with each other. In addition, the other people in the lab and in the graduate program are important determinants for your satisfaction with your graduate program. Be sure to meet your prospective advisor in person! This will help you decide if you will be a good fit for their lab and whether they are a good fit for you. Some programs have some funds to bring in prospective students; some have a weekend "open house" to which they invite the best prospects for their program; some have few or no funds, but could still be a great program.

I. Choosing a graduate program and an advisor to contact

First, think about why you want to go to graduate school. Are you interested in academia; are you interested in teaching; are you interested in working with an agency like the Bureau of Land Management or the Audubon Society or the Park Service. Find out what kind of a degree you might need, or whether you need a graduate degree at all.

Once you decide that graduate school is for you, then you should think about your interests and areas of potential research. Understandably, you may not know exactly what you want to do for your graduate work. In such cases, it might be useful to apply to a program that is strong in its support of Masters level work. Research-1 universities are very competitive and acceptance rates are often 1 in 15 to 1 in 20. With the economy the way it is, more and more people are applying to graduate schools. If you have high aspirations and little research experience or lower GPA or GRE scores, you may want to consider taking some graduate courses or getting a masters degree at a university that is somewhat less competitive. It will really help get you into a Research-1 university. There are some awesome universities out there that offer only a Masters degree and will give you a great opportunity and get you ready for a Ph.D. program if that is what you want. Additionally, a masters degree may be all that you need for your own personal career goals.

II. Contacting a prospective advisor

For most, although not all, programs, it is important, before you apply, to find a faculty member who will agree to be your advisor. At some places, this is not the case and it is important to find out how a particular program works before you apply. Read the information provided on the department's website.

Contacting a potential advisor is very important! Your first contact with a prospective advisor will set the tone for your future interactions. Here at the University of Colorado it is crucial to have a faculty member who agrees to have you as a potential member of their lab. However, that does not mean that you will be admitted to the program. Admissions are very competitive and depend on many factors including (but not limited to) the following: your compatibility with the lab in terms of research interests; your GRE and GPA scores; your previous research experience; the ability of the advisor to take on new students (e.g, they may be going on sabbatical or have a full lab and thus not be able to take on a new student); the intersection of your research interests with that of the lab you propose to enter, and many more.

Your first contact with a prospective advisor is likely to be through email. Here is some advice about that first email:

DO:

- 1) In the body of the email explain why you are interested in that particular lab and university. Also provide some information about any research experience you may have had and the labs or research environments (e.g., health centers, parks, museums) in which you may have worked.
- 2) Provide a copy of your CV
- 3) It is valuable to have: 1) read some papers by the potential advisor; 2) explain your research background and research interests; 3) be able to articulate why this lab and this university are of interest to you.
- 4) Be aware that admission to graduate school in general, and the University of Colorado in particular, is extremely competitive. You need to sell yourself and your skills. If you think you are deficient, take some graduate courses at a local university. Strong performance in those courses can be very helpful. Go to seminars at a local university. Get a flavor for what graduate school is like if you are new to this.
- 5) Be sensitive to the fact that sometimes your email will go into the "junkmail" folder; not through any disrespect of your potential advisor. Be persistent. If you don't hear back after the first email, try again.
- 6) Be polite.
- 7) Be aware that professors may get as many as 40 80 emails from prospective graduate students. If this is the lab you want, be persistent.

DO NOT:

1) Say "I am interested in climbing so I thought I would look into the University of Colorado and your web page looked cool"

- 2) Say "I stumbled across your web page". Potential advisors are interested in students who want to work in areas in which their research is focused.
- 3) Say "I thought your web page looked interesting" without being able to articulate what specifically interested you about the research program about which you are enquiring.
- 4) Not have read any papers by the prospective advisor you are contacting or be at least generally familiar with their research.
- 5) Write a short email saying you are interested in being a graduate student in their lab but don't provide any information about your background. It is very helpful to attach your CV or resume and provide a description of your research experience and why you are interested in that particular lab.

IV. Masters versus Ph.D.

Sometimes this decision is clear; other times it is not. If you aren't sure whether or not you are ready for the demands of a Ph.D. program, definitely consider a master's degree. There are advantages and disadvantages to this strategy, however. On the plus side, it may make you more marketable for a Ph.D. program, especially if you haven't had much research experience as an undergraduate. It can give you the research experience you need to get you into an outstanding program. It can help you decide if a Ph.D. is really what you want. On the negative side, getting a Masters followed by a Ph.D. generally means more time and more money spent. In addition, at some schools, Ph.D. students have precedence for funding and there are some sources of funding that are only available to Ph.D. students. Here at the University of Colorado, Ph.D. and Master's students are equally eligible for Teaching Assistantships and many research grants. However, there are some resources that are only available to Ph.D. students, such as 1-semester fellowships.

V. Visiting a prospective graduate program and advisor

It is important to meet your prospective advisor and get a sense of how their lab is run. Meeting other students and post-docs in the lab, as well as other students in the department can be very important in deciding where to go for graduate school. While some places have some funds for this; others do not. It's worth paying out of pocket to visit a place in which you are very interested. These days, with Skype and others ways of networking, a visit may not seem as important; but it is. While the importance of this may vary among prospective advisors and programs, it is a really good idea.

While you are there, have a list of questions for your prospective advisor and graduate students whom you might meet. Also, think about what you will bring to your graduate program. Perhaps you have worked as a research assistant that looks at pollinator communities in natural areas in your part of the country. Perhaps you are great at fixing things. Perhaps you worked in a molecular lab as a work-study student. These are all parts of your background that will be really helpful in graduate school—whatever area you ultimately choose to pursue.

Think about what kinds of information you need to have before making a decision. Finally, find out about financial support, timing of exams, your prospective advisor's expectations of you, how the lab is run, the culture of the department, and how other graduate students feel about the department and the university.

VI. Making the decision

While making the final decision can be difficult, think about what you want out of graduate school and what your prospective schools will provide. Remember, this is not an end, but a beginning. You have many years ahead of you to explore many areas of research, careers, and places to live. And if you don't get in the first time, be persistent. If it turns out that you go somewhere and it's not the right place for you, you have other options—never forget that. Go for it!

VII. Resources

Here are some books and articles that might be helpful for you in thinking about the possibility of graduate school.

Bloom, D.F., J. D. Karp, and N. Cohen. 1998, The Ph.D. Process. A student's guide to graduate school in the sciences. Oxford University Press

Medawar, P.B. 1979. Advice to A young Scientist. Harper Collins Publishing.

Peters, Robert L. 1997. Getting What you Came For: The smart student's guide to earning a Master's or Ph.D. Noonday Press, New York.

Thompson, John. Article on graduate school: http://bio.research.ucsc.edu/people/thompson/SuccessGen.pdf