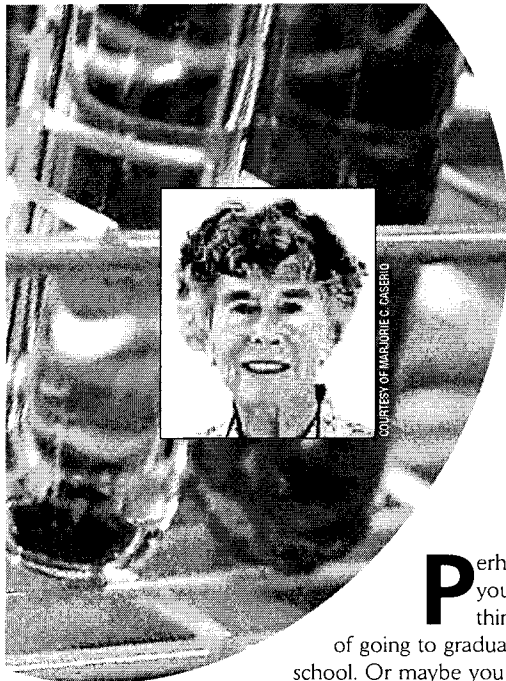


The Big Decision

BY MARJORIE C. CASERIO



Perhaps you are thinking of going to graduate school. Or maybe you have already applied and been accepted. In either case, you may know that the defining feature of chemistry graduate programs, especially at the doctoral level, is original research under faculty supervision.

Your choice of a faculty research advisor will therefore have a great influence on your research experience and is probably the most important decision you will make in graduate school. In this spirit, I want to offer a few observations that may guide you in the right direction.

First and foremost, be sure to choose an advisor whose research area is of interest to you. Otherwise, it may be difficult to survive five or six years of challenging work.

But interest alone is not sufficient. Will your advisor give you the intellectual leadership you will need? Will there be funding for the project? The answers to such questions will largely depend on your advisor and his or her ability to secure research funding from external agencies. While teaching assistantships offer valuable experience and financial support, the progress of your research will be slow without some support through a research fellowship or assistantship.

Having a "famous" professor as your thesis advisor can look impressive on your CV. But you should not allow fame to dictate your choice of advisor. An even more important consideration is the accessibility of the faculty member to you. If you thrive on being independent, it may not matter if your advisor is seldom available. Most of us, however, need advice and counsel, especially when progress stalls as it often does in research.

Bear in mind also that it will help greatly if your advisor is sensitive to your professional and cultural needs. An effective mentor will encourage your professional development and uphold the principles of scientific integrity. He or she will enable you to attend professional meetings, network with colleagues, and develop communication skills needed in presenting seminars and writing research papers and proposals. It is also beneficial if your advisor can help you find additional mentors if your work is interdisciplinary or if disputes or personal issues arise.

Some aspects of advising will become increasingly important as your work nears completion. Will your advisor allow you to finish your degree within a reasonable time, or will the project drag on with no foreseeable closure? Will your advisor give you timely guidance in your thesis preparation and review your drafts promptly? Can you expect assistance in career preparation and in searching for jobs or postdoctoral positions? Will you be able to rely on your advisor for letters of recommendation when needed?

Another consideration is the size of the group. If the group is too large, incoming students may not feel they're getting adequate attention. On the other hand, there can be significant advantages to larger groups. For example, group members help each other in ways you may not immediately realize. Postdoctoral fellows and senior graduate students can be immensely helpful to new graduate students. The group becomes a community that supports the educational and professional development of its members and provides needed socialization.

As a new graduate student expected to choose an advisor within the first year, how do you find enough answers to these questions to make an informed choice? Most graduate departments provide first-year students with helpful information, ranging from tips and hints to policies and

formal guidelines. Some departments even require you to "rotate" through several research labs for weeks at a time to gain first-hand experience of the focus and dynamics of different groups.

At the very least, you should have a conversation with your potential advisor before making a decision so that you have a clear idea of his or her expectations, how often you'll meet, anticipated financial support, time to degree, and how to sustain a productive relationship throughout your graduate experience. You need to know what to expect of each other, maybe even to the point of a written understanding. Some of the questions may be difficult to ask the faculty member face-to-face, but you can usually find answers from other students, particularly senior graduate students in the group, postdoctoral fellows, and others in the department. They can provide valuable insights into how faculty manage their groups.

In conclusion, remember that your selection has to be reciprocated by the advisor. Don't be dismayed if your initial choice is not honored. There may be very good reasons why the faculty member cannot accept another student at the present time. Remember also that if the relationship with your advisor doesn't work out, you can change advisors — and the sooner you do, the better.

It is far more likely that you will make an excellent choice at the outset that will benefit both you and your advisor and assure you of a great experience in graduate school and the promise of an exciting career. I wish you all that and more. **TC**

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