Mentor Mentee Relationships

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Mentors
A General Observation

“Faculty are hired largely on the basis of their own research accomplishments and their ability to articulate their ideas.

But their ultimate success depends to a large extent on very different set of skills: their ability to hire the right technicians, students, and postdocs and empower them to do their best work”

(T. R. Cech, President of Howard Hughes Medical Institute, C&EN, Nov. 25, 2002)
How faculty learn to be mentors and laboratory managers........

A daunting order:

- Faculty are expected to master these new sets of skills, almost entirely by osmosis.

“The things I learned about running a lab have come from watching others”

“You learn by example and counterexample-there is a complete lack of formal management training in the sciences”

- The difficulty is that there is no single formula; what works for one may not work for another.
Mentoring Researchers......

MENTEE

MENTOR

You've turned lead into gold? Good. Do it again, write a detailed description of how you did it, and submit it to peer review.
What is a Mentor?

Synonyms include
- adviser
- counselor
- guide
- tutor
- teacher
- guru

but advising is not the same as mentoring.....
Mentoring vs. Advising

- “A mentor is someone who takes a special interest in helping another person develop into a successful professional” (NAS, 1997)
- Mentoring is a personal as well as a professional relationship.
- Communication and personal investment are the keys by both the MENTOR and the MENTEE
Why be a good mentor?  
(NAS, 1997)

- Primary motivation: natural human desire to share knowledge and experience
- Satisfaction: seeing students succeed and become colleagues
- Attract good student: good students more likely to work (and stay) with good mentors
- Keep up with field: teaching students, postdocs help keep up with field(s)
- Develop network: contacts made for students, strengthen old relationship and forge new ones.
- Extend your contribution: mentored students continue to contribute after you retire
Mentor

(Council of Graduate Schools, 1990)

- Advisor: sharing career experience and interest
- Supporter: providing emotional and moral encouragement
- Tutor: providing specific, timely feedback on performance
- Sponsor: source of information about research, grants, employment, etc.
- Model: provide example of professional integrity

Faculty success depends on their ability to hire the right technicians, students, and postdocs and empower them to do their best work
Advice to New Mentors
(NAS, 1997)

- Listen patiently
- Build a relationship
- Don’t abuse your authority
- Nurture self-sufficiency
- Share yourself
- Provide introductions
- Be constructive
- Don’t be overbearing
Diversity Issues

Create atmosphere where everyone feels comfortable

- Minority issues
  - Lower expectations not helpful
  - Use of support groups

- Cultural issues (including international students)
  - Familiarity with cultural differences
  - Accommodations for the differences

- Gender, sexual orientation, and disability issues
  - Respect and accommodation
In the beginning

Find out

- The mentee’s goals for (graduate school, postdoc position, research etc) and future employment
  - Repeat this twice a year
- The mentee’s strengths and weaknesses
- The mentee’s work style
- Help them find additional mentors!
  - Developing a beneficial mentor-mentee relationship takes time and a bit of effort
Mentee
Outline

- Advisor vs. Mentor
- Research, advancement, navigating the waters
- Network, Network, Network
- Find mentors
- Find mentors
- Find mentors
- Develop MnM
- Nurture MnM
Selection of an Advisor/Mentor

- Active publication record in high-quality, peer reviewed journals
- Extramural financial support base: competitiveness and continuity of support
- National recognition: meeting and seminar invitations, invited presentations, consultantships
- Rank, tenure status, and proximity to retirement age
- Prior training record: time it takes trainees to complete a degree, number of trainees, and enthusiasm for previous trainees’ accomplishments
- Current positions of recent graduates
- Recognition for student accomplishments (e.g., coauthorship practices)
- Organizational structure of the laboratory and direct observation of the laboratory in operation
Selection of an Advisor/Mentor

1. Education – research field interests overlap
2. Interpersonal interaction
   - With mentor
   - With research group members
3. Mentoring style
   - Supervision
   - General expectations
   - Goal setting
   - Management style
Advisor vs Mentor

- Advisor Key = Communication
  - How does the research advisor evaluate students?
    - Work ethic
    - Independence
    - Results
  - Does your advisor know what your long-term goals are?
  - If there are problems.........................

- You need to find multiple mentors
  - Who do you get advice from to overcome challenges?
  - Different perspective on research, personal relationships, input on system, etc.

- Prioritize your goals
## The language of less good advisors

<table>
<thead>
<tr>
<th>What your advisor says</th>
<th>What your advisor means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look at this as a learning experience</td>
<td>You’re going to suffer</td>
</tr>
<tr>
<td>Let me explain the format of the defense</td>
<td>Let me make you even more nervous</td>
</tr>
<tr>
<td>I would like to have more time to study this</td>
<td>I didn't read it.</td>
</tr>
<tr>
<td>There are some aspects of the study that I would like to hear more about.</td>
<td>I read it but I just don't remember anything about it.</td>
</tr>
<tr>
<td>You have failed to take into account some of the more relevant literature.</td>
<td>You failed to cite me.</td>
</tr>
<tr>
<td>I would like you to explain...</td>
<td>I don't know anything about this stuff so you'll have to explain it to me.</td>
</tr>
<tr>
<td>How did you ensure that you had drawn a random sample?</td>
<td>I had to come up with at least one question and this one always works.</td>
</tr>
</tbody>
</table>
# The language of less good advisors

## Continued

<table>
<thead>
<tr>
<th>What your advisor says</th>
<th>What your advisor means</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a great topic for your thesis.</td>
<td>This is some grunge work that will help me get tenure.</td>
</tr>
<tr>
<td>You will be ready to write up soon, but need to do just one more experiment/program/chip.</td>
<td>You have now become a useful slave, and I am not about to let you graduate without doing more footwork for me.</td>
</tr>
<tr>
<td>Don't listen to XYZ, just listen to me.</td>
<td>Both XYZ and I are fools, but I'm funding you.</td>
</tr>
<tr>
<td>Let's wrap this up.</td>
<td>I'm hungry.</td>
</tr>
<tr>
<td>Could you step out of the room while the committee comes to a decision?</td>
<td>We decided beforehand to give you your degree, but we still want to make you sweat some more.</td>
</tr>
<tr>
<td>Write another chapter.</td>
<td>Write another chapter.</td>
</tr>
</tbody>
</table>

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Networking = key source of Mentors

- Know the community
- Contact people directly
  - Email questions
  - Make a point of introducing yourself at conferences
  - Send reprints
- Visit another lab!
- Who is going to write letters of recommendation for you in the future?
  - Your Network of colleagues
  - Dissertation committee
- Who is going to recommend you for a job?
- Who is going to give you a job?
Cultivating Mentors

- Peers
- Senior people in lab
- Staff
- Other faculty in dept. and outside of department
- Faculty outside of campus
- Researchers in your field and outside your field
- People with experience
Evolution of Mentors

Before faculty position

Advisor = senior postdoc in the lab (now faculty) = Dad < more senior people (beamline scientist in my field, director of a national lab facility) < key staff < peers from my laboratory

Since

Advisor = senior postdoc in the lab (now faculty) = Dad < more senior people (dept. chair, dept. faculty, outside faculty, director of a national lab facility) < key staff < peers from my graduate/postdoc laboratory
END