Objectives

• To review mentoring hits and misses.
• To define the mentoring relationship.
• To develop a rationale for mentoring best practices.
• To describe key elements of effective mentoring.
• To take advantage of mentoring opportunities.
Mentoring Stories
mentoring
On Being a Mentor

- Wise and trusted counselor or teacher
- Influential senior sponsor or supporter
- Role model
- Coach
Mentoring Competencies

- Establishing effective communication
- Aligning expectations
- Assessing understanding
- Promoting equity and inclusion
- Fostering independence
- Promoting professional development

National Research Mentoring Network (NRMN)
Good Mentor Traits

- Knowledgeable
- Available
- Listens – “Tell me more.”
- Strong advocate for you
- Provides guidance for your career path (not theirs)
- Builds networks
- Provides funding and resources
- Creates space for your own scientific niche
Sigma Xi Postdoc Survey

• Web-based survey conducted in 2003
• Contacted 22,400 postdoctoral fellows at 47 institutions (~ 40% of all postdocs in the US)
• Overall response rate of 38%
• Funded by the Alfred P. Sloan Foundation and the Wertheim Fund
Sigma Xi Postdoc Survey
Demographics

Gender by Field

- Life/Health Sciences: 54% Male, 46% Female
- Physical Sciences/Engineering: 77% Male, 23% Female
- Social Sciences/Humanities: 40% Male, 60% Female
Race and Ethnicity
Respondents could report more than one
Sigma Xi Postdoc Survey
Demographics

Age Distribution
Measures of Working Conditions

• Salary
• Independent funding (fellowship)
• Benefits
  – Insurance, retirement, child care
• Structured oversight
  – Individual development plans (IDPs), formal reviews, policies, appointment letters
• Transferrable skills training
  – Lab management, grant writing, teaching, negotiation, conflict resolution
## Salary

<table>
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<tr>
<th></th>
<th>Highest 25%</th>
<th>Lowest 25%</th>
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<tbody>
<tr>
<td>Percent satisfied with training*</td>
<td>71%</td>
<td>68%</td>
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<tr>
<td>Advisor grade (A = 4.0)</td>
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<tr>
<td>Percent reporting conflicts</td>
<td>16%</td>
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<tr>
<td>Papers submitted per year</td>
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*, p < 0.05
### Independent Funding

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<th></th>
<th>Fellowship</th>
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<td>74%</td>
<td>70%</td>
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<tr>
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<tr>
<td>Papers submitted per year</td>
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* *p < 0.05*
# Benefits

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<tr>
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<th>Highest 25%</th>
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<tbody>
<tr>
<td>Percent satisfied with training*</td>
<td>76%</td>
<td>62%</td>
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<td>Advisor grade (A = 4.0)</td>
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<td>18%</td>
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<tr>
<td>Papers submitted per year</td>
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</table>

*, p < 0.05
## Structured Oversight

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<td>80%</td>
<td>60%</td>
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<tr>
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<tr>
<td>Percent reporting conflicts</td>
<td>9%</td>
<td>21%</td>
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<td>Papers submitted per year</td>
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$p < 0.0001$, all variables
# Transferable Skills Training

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<td>Percent satisfied with training</td>
<td>83%</td>
<td>56%</td>
</tr>
<tr>
<td>Advisor grade (A = 4.0)</td>
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<td>Percent reporting conflicts</td>
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<td>Papers submitted per year</td>
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*p < 0.02, all variables*
Postdoc Survey Punchline

• Structured oversight and transferable skills training strongly influence postdoc satisfaction and productivity
  – Commitment documents
  – Individual development plans

• Effective leadership can enhance team esprit and boost team output
Mentoring Principles
Who is the mentor?

• Mentors
  – Research mentor
  – Division director
  – Department chair

• Mentoring committees

• Content experts
Mentoring Responsibilities

• Establishing expectations – Most important mentoring responsibility

• Appointment letters

• Compacts (AAMC)

• Individual development plans
Individual Development Plans

- Aligning expectations
- Promoting professional development
- Fostering independence
Three Components of Feedback

• What is especially effective?

• Where are the opportunities for improvement?

• What is the plan going forward to achieve the desired goal?
Research Team Organization

- One-on-one meetings and working groups
- Lab meetings and journal clubs
- Seminar speaker meetings
- Collaboration in hiring and grant writing
- Annual breakfast meetings with each member of the research team (review IDPs)
- Annual “State-of-the-Lab” address
Promoting Diversity and Inclusion
Seven Mentoring Phrases

1. Thank you.
2. I need your help.
3. I have an idea that might interest you.
4. I want to see more of that from you.
5. I have 5 minutes, but if you need more, let’s schedule a meeting.
6. I am sorry.
7. I am proud of you.
Two key attributes of the very most effective leaders

1. Bring incredible passion to the task
2. Don’t care who gets the credit for success
Mentoring Effectiveness Takeaways

• Mentoring improves training quality and trainee productivity.

• Adherence to general principles will enhance mentoring effectiveness.

• Feedback and coaching are essential components of mentoring.

• Practice makes perfect (or at least much better!).