Thriving in Science

Because just surviving isn’t enough

A peer support model for postdoc communities

Filipp Frank, PhD, Sara Wichner, Diane M. Wiener, PhD
University of California, Berkeley
• Think of the single biggest challenge faced in your academic career.

• Write 10-20 words describing it.

• What resources helped you through? Who helped you?

• Pair and share with your neighbors your experiences.
2014 UC Berkeley Graduate Assembly Graduate Student Happiness and Well-being Report:

- 47% of PhD students report as depressed.

- Top 10 predictors of well-being:
  
  1. Career Prospects
  2. Overall Health
  3. Living Conditions
  4. Academic Engagement
  5. Financial Confidence
  6. Social Support
  7. Academic Progress & Preparation
  8. Sleep
  9. Feeling Valued & Included
  10. Advisor Relationship
“Everyone has a superpower.”

Industry (Fortune 500 companies) recognize that productivity increases when employees thrive in their respective roles.

“Thriving” is an industrial psychology term referring to:

- intellectual engagement in your work
- owning your project’s success
- motivation to persevere through challenges
A campus-wide, professional development initiative by and for graduate students and postdocs

Empower us to become more engaged, resilient, and creative scientists

Directly address the real-world, often personal, challenges that are encountered in the course of a career in scientific research
• What are some of the major issues you have encountered in your career?

• Pair and share with your neighbors your experiences.
Common challenges faced by graduate students and postdocs:

- Rejected papers
- Scooped by competing labs
- Funding
- Authorship disagreements
- Overcoming and learning from failure
- Burnout and fatigue
- Anxiety
- Creating a positive and supportive lab culture
Monthly seminars

– Faculty:
  • Professor Judith Klinman
  • Terry Johnson

– Industry:
  • Dr. Nathan Pierce, Verily (formerly Google Life Science)

– University resources:
  • Graduate Student and Postdoc Ombuds Office
  • Counseling and Psychological Services
“Many of life’s failures are people who did not realize how close they were to success when they gave up.” - Thomas Edison, 1877

Welcome to Thriving in Science, a campus-wide, professional development initiative at U.C. Berkeley that is intended to provide graduate students and postdoctoral researchers with the resources and support to make the most of their academic training. Please explore this website for information relating to this workshop.

If you are a UC Berkeley graduate student or postdoctoral researcher in the physical/life sciences and interested in participating, please register below.

REGISTER

If you wish to attend the next lecture, please submit an RSVP.

RSVP for Next Talk
• Peer support groups
  – So far, ongoing 12 groups with ~10 members each
  – Group by same career stage
  – Limit advisor and department overlap
  – Solution-oriented network for both career and personal development

• Forming, storming, norming, performing
• Multi-wave survey of participants and a control group of nonparticipants

• In collaboration with Professor Kevin Eschelman, San Francisco State University

• The current rate of suicide ideation, regardless of participation, is comparable to high-risk occupations (e.g., soldier, police officer).
First year graduate students:

• Participants consistently reported higher performance and better health than first-year graduate students who did not participate.

• Likely because they are yet to develop effective coping strategies for handling stress.

• Promoting change with new workers can have lasting effects on organizational culture.
# Performance & Health Criteria

**1st Year Graduate Students**

<table>
<thead>
<tr>
<th></th>
<th>Participation Mean (SD)</th>
<th>No Participation Mean (SD)</th>
<th>Wave 1 Baseline Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Performance</td>
<td>5.3 (1.0)</td>
<td>4.5 (1.2)</td>
<td>5.4 (1.2)</td>
</tr>
<tr>
<td>Extra Role Performance</td>
<td>4.9 (0.6)</td>
<td>4.6 (0.7)</td>
<td>5.1 (0.9)</td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>5.7 (0.9)</td>
<td>5.2 (1.2)</td>
<td>6.3 (0.7)</td>
</tr>
<tr>
<td>Thriving to Learn</td>
<td>6.0 (0.8)</td>
<td>5.1 (1.0)</td>
<td>5.8 (0.8)</td>
</tr>
<tr>
<td>Thriving with Energy</td>
<td>4.9 (0.8)</td>
<td>4.2 (1.4)</td>
<td>5.1 (1.0)</td>
</tr>
<tr>
<td>Burnout Symptoms</td>
<td>3.5 (1.1)</td>
<td>3.9 (1.7)</td>
<td>3.8 (1.2)</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>12</td>
<td>17</td>
<td>21</td>
</tr>
</tbody>
</table>

**KEY: Response Options to Survey Items**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Disagree</td>
<td>3</td>
<td>Somewhat Disagree</td>
<td>4</td>
</tr>
</tbody>
</table>
Suicide Ideations
1st Year Graduate Students

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Participation</th>
<th>No Participation</th>
<th>Wave 1 Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoughts that I would be better off dead, or of hurting myself.</td>
<td>No</td>
<td>10 (83%)</td>
<td>12 (71%)</td>
<td>16 (76%)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>2 (17%)</td>
<td>5 (29%)</td>
<td>5 (24%)</td>
</tr>
</tbody>
</table>
Support Group Feedback
Includes 35 Participants from Wave 3 Survey

<table>
<thead>
<tr>
<th>Areas of Satisfaction</th>
<th>% Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feelings of connectedness and shared experiences</td>
<td>91%</td>
</tr>
<tr>
<td>Opportunity to discuss taboo / private topics</td>
<td>83%</td>
</tr>
<tr>
<td>Opportunity to discuss academic issues</td>
<td>71%</td>
</tr>
<tr>
<td>Provides new perspective on issues</td>
<td>66%</td>
</tr>
<tr>
<td>Facilitates networking with other scientists</td>
<td>51%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendations for Improvement</th>
<th>% Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>More guidance for group leaders</td>
<td>37%</td>
</tr>
<tr>
<td>Improved scheduling</td>
<td>31%</td>
</tr>
<tr>
<td>More structure</td>
<td>23%</td>
</tr>
<tr>
<td>More flexibility to change groups</td>
<td>17%</td>
</tr>
</tbody>
</table>
"I would not have made it without my support group."

"The Thriving In Science program has been so helpful and timely for me personally... I was contemplating dropping out only 6 months ago."

“The peer group normalizes my experiences and problems, and offers me an opportunity to get advice and perspectives from people who understand what I'm dealing with."

“Thriving in science made me see that I was not alone in these problems. My experiences are not abnormal, nor are my struggles to feel motivated or excited.”
“Thriving in Science is the first and only step I have seen the university take to address the widespread, often highly visible and very costly problems of poor quality training, lack of career support, bullying, and chauvinism, and neglect.”

“I sincerely hope (and demand!) that this program continues and expands aggressively, because I think it might eventually lead to meaningful change.”

“Each lecturer provided a service as a professional stepping up to let the community know that these are real and serious issues.”
Practicalities of sustaining the program:

1. Funding and seminars
   - Multiple sources and regulations
   - Seminar space and food and drinks
   - Draw from local pool of talent for speakers

2. Graduate student and postdoc volunteers
   - Find and correspond with speakers
   - Advertise to the scientific community
   - Peer support group logistics
Takeaways for individual postdocs:

- “Scientist who are anxious, sad, unhappy, or depressed are not doing their best work.”
- A program to facilitate methods to thrive in a scientific career dovetails well with the academic training postdocs receive.
- Participation in peer support groups is strongly correlated with professional success.
Takeaways for postdoc organizations:

• The program requires funding for monthly seminars, and staff support.

• Support of graduate students and postdocs to drive the organization and selection of speakers enables best targeting of our needs.

• Peer support enables success of the scientists within your institution’s postdoc programs.