

# Breakout Session: Research Workforce and Early Career Scientists Working Group

## Optimizing Mentorship Experiences for Grantees

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Wisconsin Center for Education Research

Institute for Clinical and Translational Research

University of Wisconsin-Madison



# Objectives:

- Explore the national landscape of mentoring in STEMM
- Introduce national models and resources used to optimize mentoring relationships with diverse trainees and their mentors.
- Introduce current research and resources that funders can use to support grantees.
- Discuss a range of implementation approaches being used nationally.
- **Breakout Session: Develop and share implementation plans for creating sustainable efforts in mentorship training locally, taking into consideration barriers and supports to those efforts.**

# Acknowledgements

Melissa McDaniels, Japera Hemming and  
Nancy Schwartz

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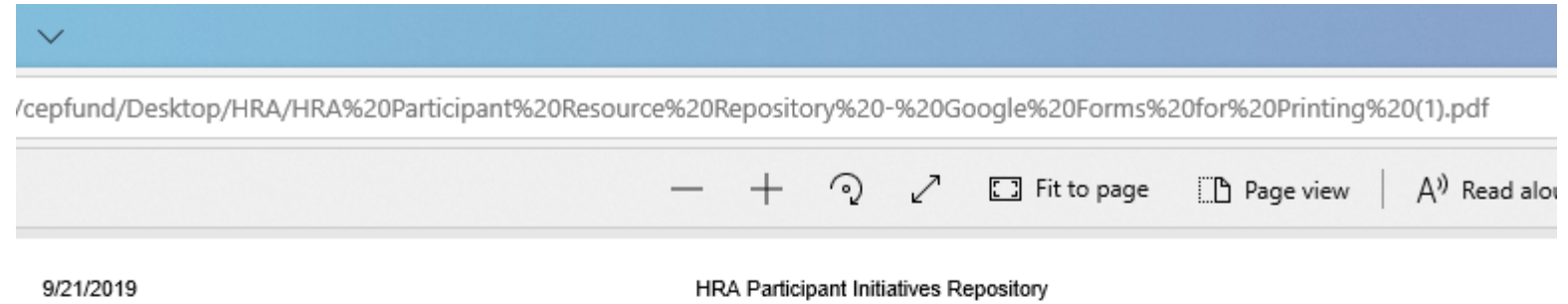


# Sharing your Programs and Resources: Creating a library of current initiatives and action plans

1. Mentorship Initiative (currently implementing or want to implement)
2. Conditions that led to the establishment of or need for this initiative
3. Audience/target of initiative
4. Disciplinary focus of initiative
5. Measuring the outcome(s) of the initiative
6. Resources needed
7. Contact info
8. Additional comments

# Mentorship Initiatives and Plans

<http://bit.ly/HRAmentor>



## HRA Participant Initiatives Repository

The responses from this google form will be compiled into a comprehensive overview of mentoring initiatives across HRA members. URL: <https://forms.gle/tsfPUGPc5bv7Yky68>

1. Please describe a Mentorship Initiative you are currently implementing (or want to implement).

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2. What conditions led to the establishment of or need for this Mentorship Initiative?

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# Sharing your Programs and Resources: Creating a library of current initiatives and plans

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# Initiatives: Example 1

## Addressing NIGMS T32 Requirement

<b>Initiative</b>	Improve research mentoring relationships in our graduate training program to address the new T32 requirement
<b>Conditions</b>	New requirement from funding agency and growing interest in improving mentorship in our program/ department
<b>Target</b>	Prospective or Current T32 Directors/ PIs
<b>Disciplines</b>	Biomedical
<b>Outcomes</b>	Skills gains in mentors; increased satisfaction of mentees with their mentoring relationship(s); enhanced persistence of all trainees; increases awareness of tools to enhance mentorship
<b>Resources Needed</b>	<ul style="list-style-type: none"><li>• Clarity of what will fulfill the mentor training requirement</li><li>• Knowledge of what resources are available locally and nationally to implement a 4-hour mentor training session as part of our program activities</li><li>• Evidence based curricula, facilitator training, marketing materials, top-level support for effort</li></ul>

# Initiatives: Example 2

## Grantee Mentorship Orientation

<b>Initiative</b>	Improve the research mentoring relationships of our grantees (mentees and their primary mentors)
<b>Conditions</b>	Growing evidence of the impact of mentoring on persistence of diverse trainees
<b>Target</b>	Post-docs and their mentors
<b>Disciplines</b>	STEMM
<b>Outcomes</b>	Increases awareness of tools to enhance mentorship; increased use of tools
<b>Resources Needed</b>	<ul style="list-style-type: none"><li>• Materials to design and offer an orientation webinar for mentees and mentors to help them launch their relationships within our program and align expectations</li><li>• Mentoring resources/ articles to share with faculty mentors of our grantees as part of the award package.</li><li>• Assessment tools</li></ul>



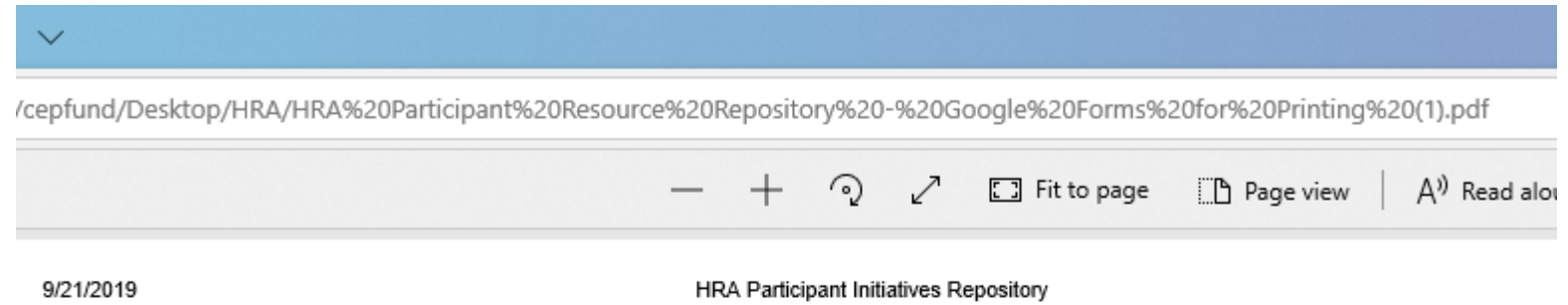
# Initiatives: Example 3

## Assessment of Mentorship

<b>Initiative</b>	To survey our faculty and trainees about what they perceive mentorship means and what needs attention and improvement in their relationships and programs.. This information will inform our future mentorship initiatives.
<b>Conditions</b>	Our conviction that mentoring needs an articulated framework to support our trainees and faculty.
<b>Target</b>	Faculty and trainees
<b>Disciplines</b>	Life Sciences
<b>Outcomes</b>	A needs assessment of our trainees and faculty regarding mentorship; information to inform our mentorship initiatives
<b>Resources Needed</b>	<ul style="list-style-type: none"><li>• Funds to support a student in Education/Social Science to bring mixed methods approaches to design and analysis.</li><li>• Evidence based curricula to build from</li></ul>

# Mentorship Initiatives and Plans

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2. What conditions led to the establishment of or need for this Mentorship Initiative?

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# Exploration of Available and Needed Resources

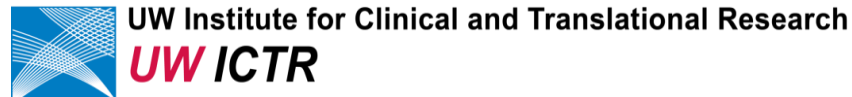
Evidence-based resources exist to support the optimization of research mentoring relationships

*...these are open-access and ready to be used by campuses today!*

HHMI



Over the past decade, many organizations have made it possible for mentor and mentee training curricula to be developed and tested



# NIH DIVERSITY CONSORTIUM



## National Research Mentoring Network (NRMN)



## Building Infrastructure Leading to Diversity (BUILD)



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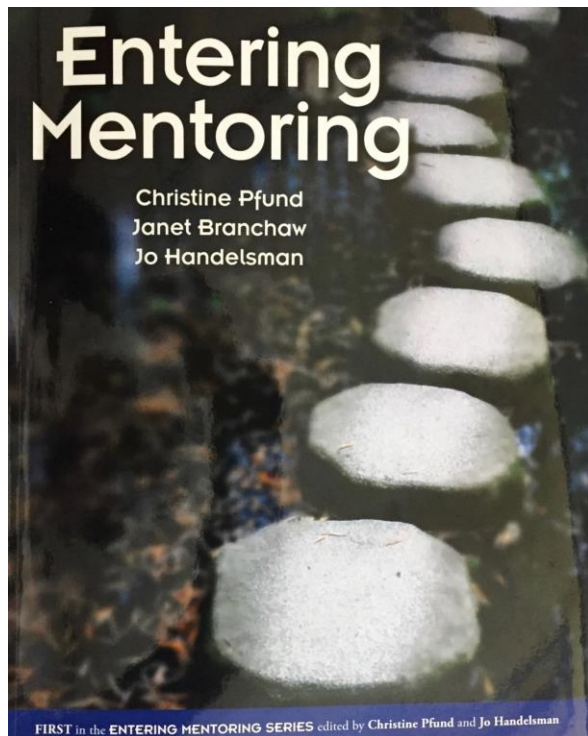


# NRMN Mentor Training Core: Expanded, Enhanced, and Studied Ways to Optimize Research Mentoring Relationships

- Face-to-face mentor training workshops
- Face-to-face mentee training workshops
- Self-paced online training
- Synchronous online training
- Train-the-trainer workshops
- Implementation workshops



# Mentor Training Curriculum



## Key elements of mentor training:

- Process-based using case studies and group problem solving
- Aimed at awareness-raising and reflection across targeted competencies
- Provides a confidential and brave forum to share the collective experience of mentors across a range of experiences
- Distribute and adapt resources to improve mentoring

# Mentor Training Curriculum: Standardized Competencies

- Aligning expectations
- Promoting professional development
- Maintaining effective communication
- Addressing equity and inclusion
- Assessing understanding
- Fostering independence
- Cultivating ethical behavior
- With more in development!



# Research Self-Efficacy Module

- 90-minute face-to-face mentor training module
- Developed using the social cognitive career theory (SCCT) model
- Designed to address the gap in training opportunities to help mentors learn how to support trainee research self-efficacy
- Tested at 11 sites

## PROMOTING TRAINEE RESEARCH SELF-EFFICACY

Table 7. Self-reported skill gains from self-efficacy module participants.













	Before <i>M</i> (SD)	Now <i>M</i> (SD)	<i>M</i> <sub>diff</sub>	<i>t</i> (df)	<i>p</i>	<i>d<sub>z</sub></i>
Defining the sources of self-efficacy	3.17 (1.61)	4.92 (1.23)	1.75	12.75 (100)	<.001	1.26
Building mentees' confidence for research	4.03 (1.39)	5.22 (1.09)	1.18	13.20 (152)	<.001	1.07
Employing strategies for building mentees' self-efficacy in research	3.57 (1.35)	5.09 (1.07)	1.52	15.80 (152)	<.001	1.28
Assessing mentees confidence for research	3.75 (1.40)	4.80 (1.27)	1.05	11.42 (151)	<.001	0.93
Recognizing deficits in mentees' confidence for research	3.62 (1.30)	4.81 (1.12)	1.19	11.98 (130)	<.001	1.05

Butz, A., Byars-Winston, A., Leverett, P., Branchaw, J., and Pfund, C. (2018). Promoting STEM trainee research self-efficacy: a mentor training intervention. *Understanding Interventions*. 1(9).

# Mentor Training Curriculum Adaptations for Career Stages & Disciplines

## Complete Entering Mentoring Curricula

Curricula are organized by discipline. Each curriculum denotes the career stage of the mentee which whom the mentors work. Click on the magnifying glass to see a preview. Click on the lock to log in and download the curriculum as a PDF.

 Astrophysics <ul style="list-style-type: none"><li>✓ Astronomy and Astrophysics</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Biology <ul style="list-style-type: none"><li>✓ Biology</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Biomedical Research <ul style="list-style-type: none"><li>✓ Biomedical</li><li>✓ Graduate</li><li>✓ Post Doc</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Chemistry <ul style="list-style-type: none"><li>✓ Chemistry</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Clinical and Behavioral Research <ul style="list-style-type: none"><li>✓ Clinical and Behavioral Sciences</li><li>✓ Junior Faculty</li><li>✓ Post Doc</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Clinical and Translational Research <ul style="list-style-type: none"><li>✓ Clinical and Translational Sciences</li><li>✓ Junior Faculty</li><li>✓ Post Doc</li></ul> <a href="#">Preview</a> <a href="#">Download</a>
 Community Engaged Research <ul style="list-style-type: none"><li>✓ Community Engaged Health Sciences</li><li>✓ Junior Faculty</li><li>✓ Post Doc</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Engineering <ul style="list-style-type: none"><li>✓ Engineering</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Faculty Mentor Training <ul style="list-style-type: none"><li>✓ Multidisciplinary</li><li>✓ Junior Faculty</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Field Biology <ul style="list-style-type: none"><li>✓ Field Biology</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Math <ul style="list-style-type: none"><li>✓ Math</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>	 Multidisciplinary <ul style="list-style-type: none"><li>✓ Multidisciplinary</li><li>✓ Undergraduate</li></ul> <a href="#">Preview</a> <a href="#">Download</a>

# Training Materials: Build-Your-Own Research Mentor Training Curricula



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Search Custom Curricula

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0

Training for:  Competencies:  Disciplines:  Career Stages:

## Addressing Equity and Inclusion

<p><b>Activity</b></p> <p>Reflecting on Diversity</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Reflect on Unconscious Assumptions</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Implications of Diversity Research</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Case Study</b></p> <p>Is it OK to Ask?</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Share Experience as Outsider</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Dig Deeper</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>
<p><b>Case Study</b></p> <p>Cultural Sensitivity</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Addressing Equity and Inclusion Full Session</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Clinical and Translational Sciences</li><li>Junior Faculty</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Reflecting on Diversity</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Biomedical</li><li>Graduate</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Reflect on Unconscious Assumptions</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Biomedical</li><li>Graduate</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Instructions: 3 Case Studies on Equity and Inclusion</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Biomedical</li><li>Graduate</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Outsider Experience</p> <ul style="list-style-type: none"><li>Addressing Equity and Inclusion</li><li>Biomedical</li><li>Graduate</li><li>Post Doc</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>



# Planning Resource: Scheduling

## Mentor

### Scheduling

Our mentor training is designed to be delivered in 8 hours. Former participants have reported that scheduling sessions every other week over approximately two months is ideal, because it allows time for reflection and practice.

Alternatively, you may wish to implement a shorter workshop. In this case, we recommend that you focus on just one or two topics. You can customize your own curriculum using our collection of materials.

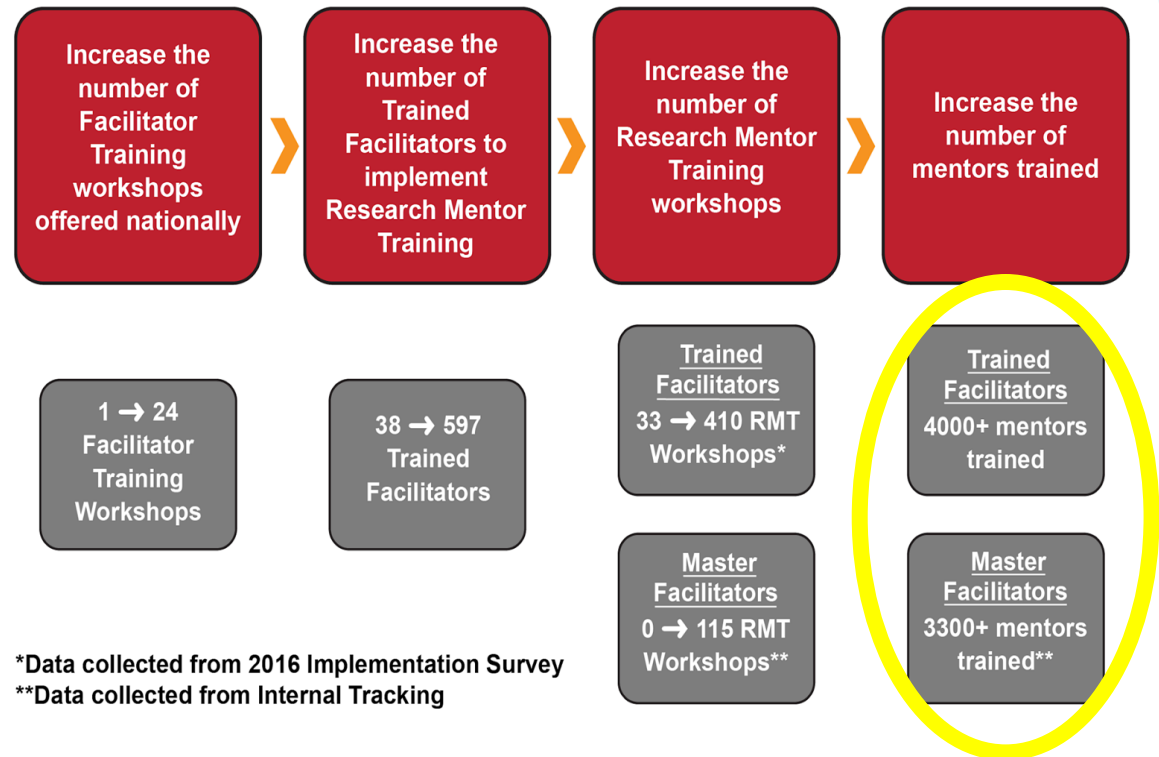
### Sample Schedule #1 (recommended)

Session	Length	Topics
1	2 hours	Introduction to Mentor Training Maintaining Effective Communication
2	2 hours	Aligning Expectations Assessing Understanding
3	2 hours	Addressing Equity and Inclusion Fostering Independence
4	2 hours	Promoting Professional Development Articulating Your Mentoring Philosophy and Plan



# Expanding: Train-the-Trainer Approach to National Dissemination

- TTT approach to dissemination has resulted in the preparation of nearly 600 trained facilitators, representing 152 academic institutions
- Trained Facilitators have implemented mentor training for over 4,000 graduate student, junior faculty, and senior faculty mentors



# CIMER Facilitator Training Workshops



About ▾ Training Services ▾ Curricula ▾ For Facilitators ▾ Assessment Platform ▾ Research ▾ Portal

## News & Events

### Assessment Tool to Measure Mentorship Role in Undergraduate Research

January is National Mentor Month and UW–Madison has reason to celebrate. For over two decades, the university has been a nationally recognized leader in evidence-based research mentor and mentee training, and has led the way in providing high-quality undergraduate research experiences. Thanks to the dedicated work of a group of units from across campus, yet ...

### UW–Madison Researchers Contribute to NAS Report on Undergraduate Research Experiences

A National Academy of Sciences committee whose members include Janet Branchaw and Eric Grodsky, both on faculty at the University of Wisconsin–Madison School of Education and principal investigators at its Wisconsin Center for Education Research (WCER), released a study examining evidence on undergraduate research experiences. Branchaw and Grodsky are among 16 experts from across the ...

### Upcoming Events

All day, October 1, 2019 – October 2, 2019 – [Facilitating Entering Mentoring](#)

All day, October 24, 2019 – October 25, 2019 – [Facilitating Entering Mentoring](#)

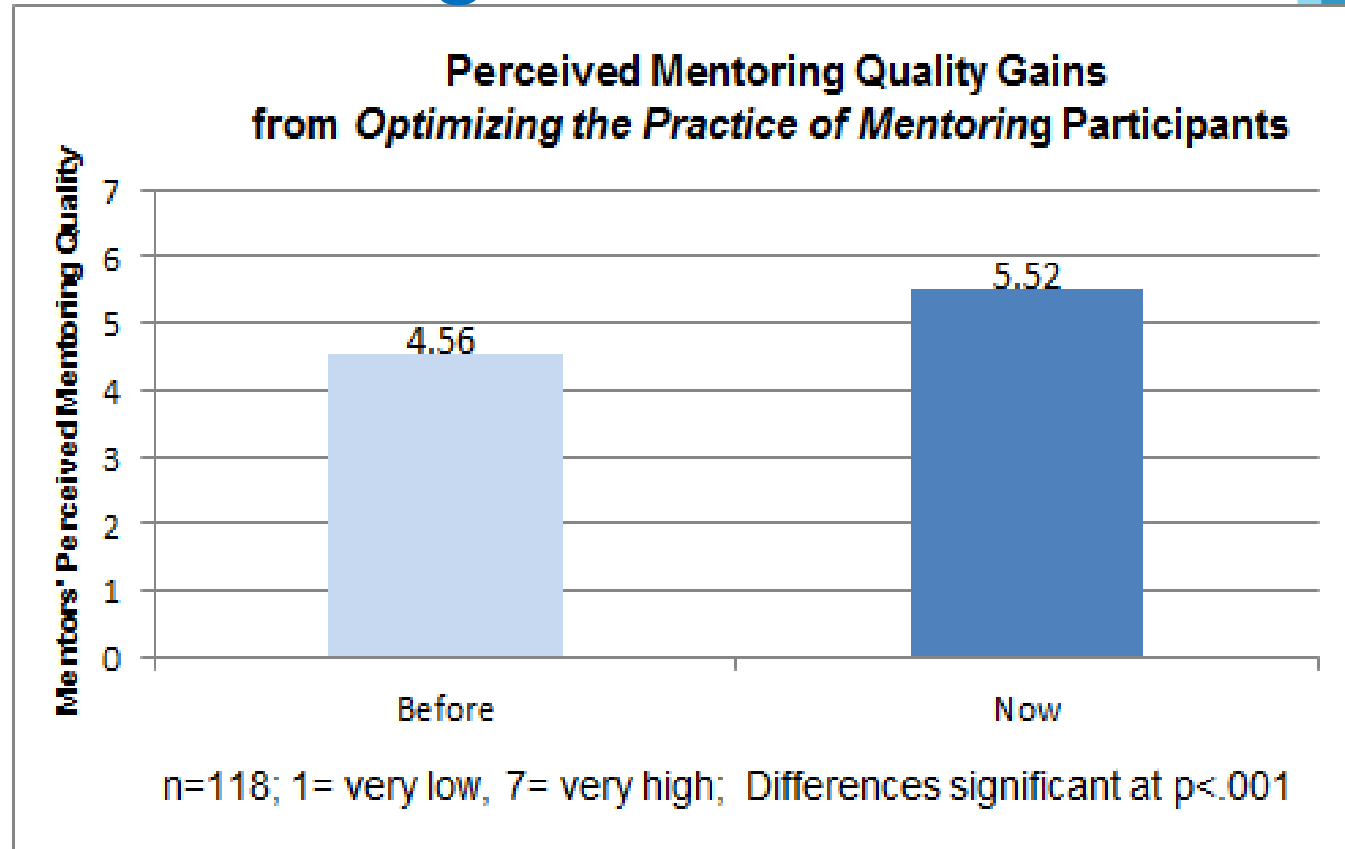
8:00 am – 4:30 pm, February 13, 2020 – February 14, 2020 – [Entering Research](#)

8:00 am – 4:30 pm, June 4, 2020 – June 5, 2020 – [Entering Research](#)



# Enhanced Online, Self-Paced Mentor Training

- Online, self-paced training for mentors of graduate students, postdocs, and junior faculty
- Adaptation for mentors of undergrads is in development (in final programming phase)



Weber-Main AM., Shanedling J., Kaiser A., Connett J., Lamere M., El-Fakahany E. A Randomized Controlled Pilot Study of the University of Minnesota's Mentorship Excellence Training Academy: A Hybrid Learning Approach to Research Mentor Training. [Manuscript in preparation]

# Adapted Intervention: Motivation Module

Research Report

## A Randomized Controlled Trial of Mentoring Interventions for Underrepresented Minorities

Vivian Lewis, MD, Camille A. Martina, PhD, Michael P. McDermott, PhD, Paula M. Trief, PhD, Steven R. Goodman, PhD, Gene D. Morse, PharmD, Jennifer G. LaGuardia, PhD, Daryl Sharp, PhD, RN, and Richard M. Ryan, PhD

Enhancing Motivation using the  
**CARES Mentoring Model**

The Role of  
Motivation

The CARES  
Model

Two Additional  
Factors

The Evidence

The CARES  
Conversation

Next Steps

What are the key factors that  
**affect mentees' motivation?**

How can we create an  
**optimal environment to support them?**

In this module, you'll learn about basic motivation concepts and their well-researched impact on satisfaction, performance, and persistence in educational and professional settings. You'll be introduced to a motivation-focused model of mentoring that has a strong theoretical foundation. And you'll explore strategies for putting the model's principles into action, with the goals of 1) better understanding your mentees' core psychological needs, including how these needs might be affected by issues of work-life balance and diversity, and 2) establishing a framework with your mentees for regularly discussing and attending to those needs together.

This module should take  
approximately 60  
minutes to complete.

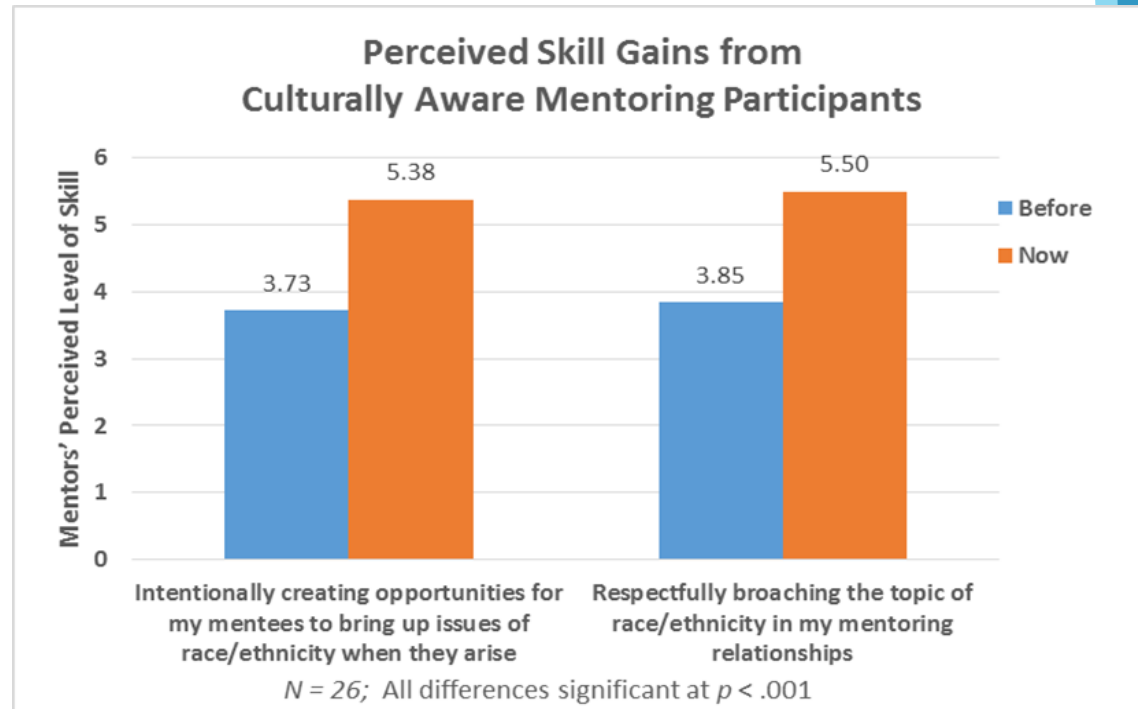


**Find out what you'll be able to  
do by completing this module**



# New Modules: Culturally Aware Mentor Training

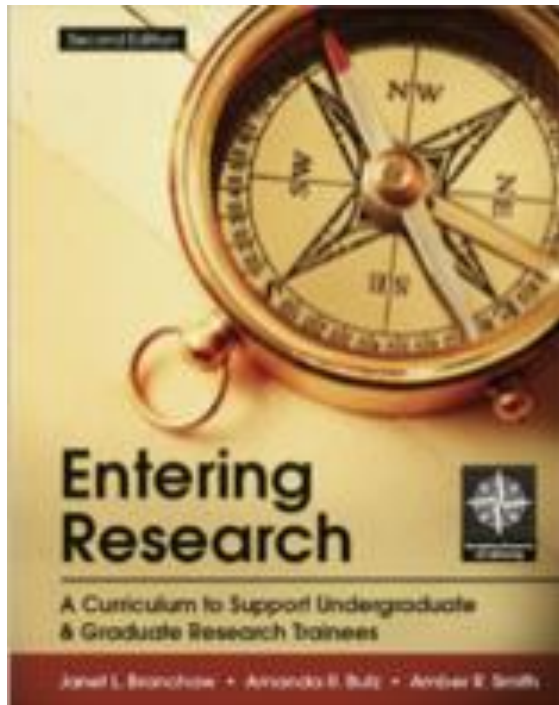
- Full-day level 2 mentor training workshop
- Implemented at 12 sites with 257 participants
- Pilot data (n=70) show self-reported significant gains
- Sample of Impact 24 months Post Pilot Training
  - Greater realization of their own racial and ethnic biases and insensitivities
  - More individualized mentoring strategies
  - Better engagement with historically underrepresented (HU) students, even by HU faculty



Building from R01 GM094573 (Byars-Winston and Pfund)

Byars-Winston et al. (2018). *Journal of Clinical and Translational Science*, 2(2), 86-94.

# Developed and Tested Training for Mentees



## Key elements of mentee training:

- Process-based using case studies and group problem solving
- Introduces undergraduate and graduate students to the culture of research
- Teaches valuable research skills
- Alleviates some of the work of faculty and lab personnel associated with mentoring novice researchers.

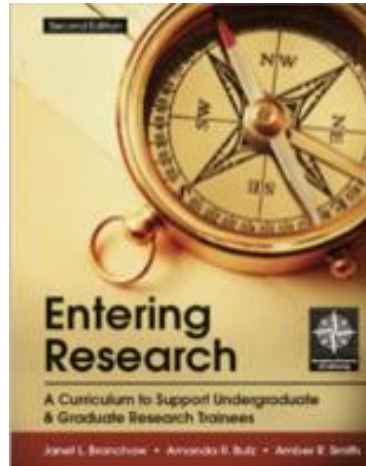
# Mentee Training Curriculum

## **Research Skills**

- *3-Minute Research Story*
- *Ethics Case: Credit where Credit is Due*
- *Mini-Grant Proposal*

## **Interpersonal Skills**

- *Finding a Research Mentor*
- *Aligning Mentor – Trainee Expectations*
- *Case Studies: Sticky Situations*



## **Cultural Awareness and Skills**

- *Storytelling/Counter-storytelling*
- *Stereotype threat*

## **Research Attitudes and Beliefs**

- *Awkward/Unnecessary Mentor Case Study*
- *Steps to Researcher Independence*
- *The Power of Social Persuasion (Self-Efficacy)*

## **Professional & Career Development Skills**

- *Research Careers*
- *The Next Step in Your Career*
- *“Whatever you do, don’t choose this lab” case study (rotation advice)*
- *Lab rotation rubric*

# Mentee Training Curriculum: Entering Research (ER)

## ER2: Areas of Trainee Development

(AoTD)

Research Comprehension & Communication Skills

Practical Research Skills

Research Ethics

Researcher Identity

Researcher Confidence & Independence

Equity & Inclusion Awareness & Skills

Professional & Career Development Skills

**1** book: **622** pages; **96** activities

**26** colleagues who contributed content to ER2

Pilot Testing: **36** unique implementations with **64** facilitators & **499** trainees

**1** validated learning assessment, **1** evaluation survey & **14** activity rubrics

**55** Trained Facilitators

# Training Materials: Build-Your-Own Research Trainee Training Curricula



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Search Custom Curricula

Save & Download Book



Training for: Research Trainee Materials Type: Complete Trainee Development Area: All Trainee Stage: All


## Develop effective interpersonal communication skills

<p><b>Activity</b></p> <p>Addressing Conflict-Complete</p> <ul style="list-style-type: none"><li>★ Research Comprehension &amp; Communication Skills</li><li>▶ Equity &amp; Inclusion Awareness &amp; Skills</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Aligning Mentor &amp; Trainee Expectations-Complete</p> <ul style="list-style-type: none"><li>★ Research Comprehension &amp; Communication Skills</li><li>▶ Researcher Identity</li><li>▶ Researcher Confidence &amp; Independence</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Case Study: Authorship-Complete</p> <ul style="list-style-type: none"><li>★ Research Ethics</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Case Study: Awkward Mentor-Complete</p> <ul style="list-style-type: none"><li>★ Equity &amp; Inclusion Awareness &amp; Skills</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Barriers to Effective Communication-Complete</p> <ul style="list-style-type: none"><li>★ Research Comprehension &amp; Communication Skills</li><li>▶ Equity &amp; Inclusion Awareness &amp; Skills</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Communicating Research Findings 3: Developing Your Presentation-Complete</p> <ul style="list-style-type: none"><li>★ Research Comprehension &amp; Communication Skills</li><li>▶ Researcher Confidence &amp; Independence</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>
<p><b>Activity</b></p> <p>Constructive and Destructive Behaviors-Complete</p> <ul style="list-style-type: none"><li>★ Equity &amp; Inclusion Awareness &amp; Skills</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Establishing Your Ideal Thesis Committee-Complete</p> <ul style="list-style-type: none"><li>★ Professional &amp; Career Development Skills</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Researcher Confidence &amp; Independence</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Ethics Case: Discussion with Mentor-Complete</p> <ul style="list-style-type: none"><li>★ Research Ethics</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Undergraduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Finding a Research Mentor-Complete</p> <ul style="list-style-type: none"><li>★ Professional &amp; Career Development Skills</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Undergraduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Finding Potential Research Rotation Groups and Mentors-Complete</p> <ul style="list-style-type: none"><li>★ Professional &amp; Career Development Skills</li><li>▶ Research Comprehension &amp; Communication Skills</li><li>▶ Researcher Identity</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>	<p><b>Activity</b></p> <p>Case Study: Frustrated-Complete</p> <ul style="list-style-type: none"><li>★ Research Comprehension &amp; Communication Skills</li><li>▶ Researcher Confidence &amp; Independence</li><li>▶ Undergraduate</li><li>▶ Graduate</li><li>▶ Complete</li></ul> <p><a href="#">Preview</a> <a href="#">Add to Book</a></p>



# CIMER Facilitator Training Workshops



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## News & Events

### Assessment Tool to Measure Mentorship Role in Undergraduate Research

January is National Mentor Month and UW–Madison has reason to celebrate. For over two decades, the university has been a nationally recognized leader in evidence-based research mentor and mentee training, and has led the way in providing high-quality undergraduate research experiences. Thanks to the dedicated work of a group of units from across campus, yet ...

### UW–Madison Researchers Contribute to NAS Report on Undergraduate Research Experiences

A National Academy of Sciences committee whose members include Janet Branchaw and Eric Grodsky, both on faculty at the University of Wisconsin–Madison School of Education and principal investigators at its Wisconsin Center for Education Research (WCER), released a study examining evidence on undergraduate research experiences. Branchaw and Grodsky are among 16 experts from across the ...



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### Upcoming Events

All day, October 1, 2019 – October 2, 2019 – [Facilitating Entering Mentoring](#)

All day, October 24, 2019 – October 25, 2019 – [Facilitating Entering Mentoring](#)

8:00 am – 4:30 pm, February 13, 2020 – February 14, 2020 – [Entering Research](#)

8:00 am – 4:30 pm, June 4, 2020 – June 5, 2020 – [Entering Research](#)



# Mentoring Up

Adapted from Gabarro and Kotter (1980) *Harvard Business Review*.

Lee, S., Pfund, C., Branchaw, J., and McGee, R. (2018) Mentoring Up: Learning to Manage Your Mentoring Relationships. In *The Mentoring Continuum: From Graduate School Through Tenure*. Glenn Wright, ed. Syracuse, NY: The Graduate School Press of Syracuse University.

Beyond “Finding Good Mentors” to “Building and Cultivating Your Mentoring Team” (2015) Rick McGee, Steve Lee, Christine Pfund, Janet Branchaw. National Postdoc Association



# Modules to Address Attributes for Effective Research Mentoring Relationships

## Research Skills

- Developing disciplinary research skills
- Teaching and Learning disciplinary knowledge
- Developing technical skills
- Accurately assessing mentees' understanding of disciplinary knowledge and skills
- Valuing and practicing ethical behavior and responsible conduct of research

## Diversity / Culturally-focused Skills

- Advancing equity and inclusion
- Being culturally responsive
- Reducing the impact of bias
- Reducing the impact of stereotype threat

## Interpersonal Skills

- Listening actively
- Aligning mentor and mentee expectations
- Building trusting relationships/ honesty

## Sponsorship Skills

- Fostering mentees' independence
- Promoting professional development
- Establishing and fostering mentee professional networks
- Actively advocating on behalf of mentees

## Psychosocial Skills

- Providing motivation
- Developing mentee career self-efficacy
- Developing mentee research self-efficacy
- Developing science identity
- Developing a sense of belonging





# CIMER: Center for the Improvement of Mentored Experiences in Research



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CIMER: Providing resources for organizations and institutions to improve research mentoring relationships

Effective research mentoring relationships are critical to developing the next generation of researchers. Learn how to improve these relationships at all career stages and promote cultural change that values excellence in research mentoring as a critical aspect of diversifying the research workforce.

## Who are we?

Researchers and practitioners dedicated to improving research mentoring relationships among all career stages of post-secondary researchers.

## What do we do?

CIMER faculty and staff investigate approaches for improving research mentoring relationships for organizations and institutions. We develop, implement and evaluate mentor and mentee

## News

[UW-Madison Researchers Contribute to NAS Report on Undergraduate Research Experiences](#)

A National Academies of Sciences committee whose members include CIMER's Janet Branchaw

[MORE NEWS](#)



Services	Curricula	Evaluation	Resources
Research Mentor Training	Research Mentee Training	Tools for Evaluating:	Online Mentor Training Courses
Research Mentee Training	Research Mentor Training	Mentor Training	Online Mentee Training Courses
Facilitator Training	Full Curricula download	Mentee Training	Virtual Mentoring Programs
Consulting	& Build-Your-Own Curricula download	Mentored Research Experiences	Materials for Mentors and Mentees
			Video Case Studies
			Songs as Case Studies

CIMER: Providing resources for organizations and institutions to improve research mentoring relationships

# Evaluation Resource: Mentoring Competency Assessment (MCA)

<https://cimerproject.org/cimer-assessment-platform/>

## CIMER Assessment Platform (CAP)

The CIMER Assessment Platform (CAP) is an electronic survey platform housed at the Center for Improvement of Mentored Experiences in Research. Accessible through the CIMER portal, the platform is used to collect individual or paired survey data across programs, institutions, and organizations using both common and customized assessment metrics.

## Why use the CIMER Assessment Platform?

The platform was developed by researchers to streamline data collection across multiple sites using common metrics. Key features were built to ensure that users can easily administer surveys, access data, and compare data across groups.

### Key Features

- Program administrators have full control of creating and administering their survey and monitoring data collection
- Surveys include base questions used across all groups but can also be customized
- Program administrators have can access and download survey data
- Formal reports and datasets are automatically generated at both the individual level (each site) as well as the aggregate level (across all sites)
- Mentors and mentees/trainees can be surveyed individually or as a pair with aligned survey questions
- Survey users contribute to a national evaluation dataset on research mentoring relationships

Interested in using CAP for your data collection?

Contact Us



CAP HELP

Learn more about using the platform





# Additional Resources (in addition to CIMER)

Free modules and resources of mentors to help them advance their practice	
90 minute, online self-study for the mentors of grad students, postdocs, and junior faculty to optimize their mentoring practices	<a href="https://www.ctsi.umn.edu/education-and-training/mentoring/mentor-training">https://www.ctsi.umn.edu/education-and-training/mentoring/mentor-training</a>
90 minute, online self-study for the mentors of undergraduates to optimize their mentoring practices	Coming soon from NRMN and University of Minnesota
Online self-study module for mentors on how to better motivate their mentees	<a href="https://www.ctsi.umn.edu/education-and-training/mentoring/mentor-training">https://www.ctsi.umn.edu/education-and-training/mentoring/mentor-training</a>
Resources for mentors for each phase of the mentoring relationship: selection, alignment, cultivation, closure	<a href="https://ictr.wisc.edu/mentoring-2/">https://ictr.wisc.edu/mentoring-2/</a>
Introduction to culturally aware mentoring and training available	<a href="https://nrmnet.net/research-mentor-training/">https://nrmnet.net/research-mentor-training/</a>
Example Mentoring compacts and individual development plans	<a href="https://ictr.wisc.edu/mentoring-2/mentoring-compactscontracts-examples/">https://ictr.wisc.edu/mentoring-2/mentoring-compactscontracts-examples/</a>
Example Individual development plans	<a href="https://ictr.wisc.edu/mentoring-2/individual-development-plan/">https://ictr.wisc.edu/mentoring-2/individual-development-plan/</a>

# Phases of the Mentoring Relationship: Selection, Alignment, Cultivation, Closure

<https://ictr.wisc.edu/mentoring/>

## MENTORING



Effective mentoring is a key component of the education and training of clinical and translational researchers. ICTR strives to provide a supportive environment to our scholars and trainees, as well as their mentors, that includes research mentoring to foster growth throughout one's professional career pathway. Our introductory Mentor and Mentee Resources are framed around the four phases of the relationship: Selection, Alignment, Cultivation, and Closure. Please see below to access in depth resources associated with each phase.

ICTR is also a leader in the development of mentoring resources and specialized training curricula across the biomedical, translational, and clinical disciplines. [Members of our mentoring team have developed, tested, and disseminated nationally recognized workshops for mentor and mentee training throughout the CTSA consortium.](#) These initiatives are part of a [larger coordinated NIH effort](#) to diversify the biomedical research workforce.



### NEED HELP?

Welcome to our new home on the UW ICTR web site. Previously bookmarked material can be found here or on the [CIMER web site.](#)

More questions? You can contact us at [mentoring@med.wisc.edu](mailto:mentoring@med.wisc.edu)



Our UW-Madison team leads the Mentor Training Core of the National

# Council of Graduate Schools (CGS): Resources

<https://cgsnet.org>

Occasional Paper Series

Number 4 | September 2016

## Great Mentoring in Graduate School:

A QUICK START GUIDE FOR PROTÉGÉS

Laura Gail Lunsford, PhD & Vicki L. Baker, PhD



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[Home](#) / [Lesson Four – Mentoring Systems](#)

### Lesson Four – Mentoring Systems

#### Lesson Four – Mentoring Systems

Because mentorship is central to doctoral education, the design and monitoring of the processes for “managing” this one-on-one relationship between faculty and student are critical. And precisely because the relationship is personal, it easily avoids evaluation and scrutiny.

A graduate school can emphasize to students and faculty alike the importance of positive mentoring by providing workshops and discussions about mentoring for faculty and graduate students. Another resource is the Faculty Development Center that could provide ongoing mentoring workshops. Faculty members who have never served as graduate mentors should be provided workshops on successful mentoring. A speaker series devoted to mentoring could be made available to faculty and graduate students. The Graduate Student Association can offer an annual mentoring award to recognize the effective mentors on campus. There are multiple ways to encourage greater dialogue about the importance of the mentoring role.