

Mentoring Training Workshop

April 11, 2017

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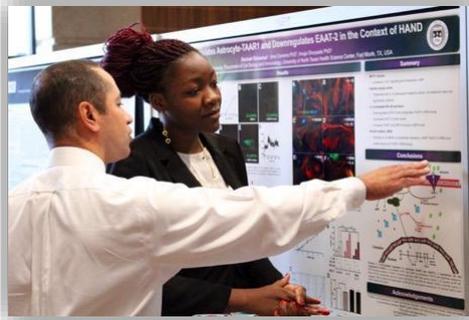
Lauren Ullrich, PhD.
NINDS

Chinonye Nnakwe, PhD.
AAAS Fellow

Marguerite Matthews, PhD.
AAAS Fellow

A Mentored Research Experience and Strong Mentorship has been linked to:

- ▶ **Enhanced science identity, sense of belonging and self-efficacy** (Palepu *et al*, 1998; Garman *et al*, 2001; Paglis *et al*, 2006; Lopatto, 2007; Bland *et al*, 2009; Feldman *et al*, 2010; Cho *et al*, 2011; Chemers *et al*, 2011; Thiry and Laursen, 2011; Byars-Winston *et al.*, 2015)
- ▶ **Persistence** (Gloria *et al*, 2001; Solorzano 1993; McGee and Keller, 2007; Sambunjak *et al*, 2010; Williams *et al*, 2015; Bordes-Edgar *et al.*, 2011; Campbell and Campbell, 1997)
- ▶ **Research productivity** (Steiner and Lanphear, 2002; 2007; Wingard *et al*, 2004)
- ▶ **Higher career satisfaction** (Schapira *et al*, 1992; Beech *et al*, 2013)
- ▶ **Enhanced recruitment of URMs** (Hathaway *et al*, 2002; Nagda *et al*, 1998).



At its best, mentoring can be a life-altering relationship that inspires mutual growth, learning, and development. Its effects can be remarkable, profound and enduring; mentoring relationships have the capacity to transform individuals groups, organizations and communities.

(Ragins and Kram, 2007)

The Uneven Mentoring Landscape

- White investigators significantly more likely than Black and Hispanic investigators to win R01 awards; minority investigators indicate that **inadequate mentoring posed obstacles to obtaining funding** (Ginther *et al.*, 2011)
- Science faculty **rated male applicant as more competent** than identical female applicant; offered male ~ \$4,000 more in salary, more career mentoring than to the female (Moss-Racussin *et al.*, 2012)
- URMs and White women's **mentorship requests more ignored** than those by White men (Milkman *et al.*, 2014)
- Male biologists **less likely to hire and train** women in their laboratories (Sheltzer & Smith, 2014).
- URMs typically **receive less mentoring** than their non-minority peers (Thomas *et al.*, 2001; Helm *et al.*, 2000; Morzinski *et al.*, 2002).

A National Focus on Mentoring



- ▶ National Science Foundation (NSF)
 - ▶ Post-doctoral mentoring plans
 - ▶ Undergraduate research AND mentoring programs
 - ▶ AAAS/ PASEMEN STEM Mentoring 2030 Meeting
- ▶ National Academies of Science
 - ▶ New Report on Mentored Undergraduate Research Experiences
 - ▶ Participatory Workshop on Effective Mentoring in STEMM
- ▶ Sloan Foundation
 - ▶ University Centers of Mentoring Excellence
- ▶ HHMI
 - ▶ Mentor and mentee training program for the Gilliam Scholar Programs
- ▶ National Institutes of Health (NIH)
 - ▶ Mentored K awards
 - ▶ Individual development plans (IDPs)
 - ▶ National Research Mentoring Network (NRMN)

*The National
Academies of* SCIENCES
ENGINEERING
MEDICINE



HHMI





National Research Mentoring Network (NRMN)

NRMN is a nationwide consortium of biomedical professionals and institutions collaborating to provide **all trainees** across the **biomedical, behavioral, clinical and social sciences** with evidence-based **mentorship** and **professional development** programming that emphasizes the benefits and challenges of **diversity, inclusivity** and **culture** within **mentoring relationships**, and more broadly the biomedical research workforce.



NRMN Goals



Overarching Goal:

To significantly contribute to national efforts to enhance the size, quality, diversity and productivity of the biomedical research workforce trained to improve human health through mentoring activities

- Increase access to mentoring across all career stages through **matching and linking**
- Improve mentoring relationships and outcomes through **training** for research mentors, grantwriting coaches, career coaches & mentees
- Increase access to research resources & career development opportunities through **referring**
- Increase awareness of the value of career mentoring across the nation through **promoting**

NRMNet: A Platform for Mentoring and Networking



NRMN Accounts Home Profile Log Out



LINKING

NRMN Applications

MATCHING

TRAINING

PROMOTING

MyNRMN

Browse profiles of mentors and mentees from around the country and build your network by connecting with users that share interests with you. Use your dashboard to chat in real time with others in your network, send messages seeking advice, share documents, build your CV, and set appointments to collaborate with others using your personalized calendar.

[Take Me There](#)

Guided Virtual Mentorships

Engage in a one-on-one mentorship involving a weekly discussion over the course of 4 months where you and your partner will receive prompts and suggested discussion topics to guide your interactions each week. Once the 4-month mentorship is over, mentees can select a new mentor and gain the perspectives of multiple mentors over time, or continue to interact with the same mentor by inviting them to engage in another 4-month mentorship.

[Take Me There](#)

MyTraining

Discover and take part in NRMN programs and events. Use your NRMN calendar to apply to participate in upcoming training programs and workshops, register for online webinars, discussion panels, and more.

[Take Me There](#)



**DIVERSITY
PROGRAM
CONSORTIUM**
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Institutes of Health

NRMN's Programs by Career Stage

 Program Available

 Program Under Development

Program statuses as of 2017

MATCHING /LINKING

	Undergraduate	Graduate	Postdoc	Junior Faculty	Senior Faculty	Non-faculty Researcher	Administrator
Guided Virtual Mentorships							
MyNRMN							
Near Peer Mentoring							
Virtual Collaboratory							

TRAINING

Career Coaching							
Facilitator Training							
Grant Writing Coaching Groups							
Mentor Certifications							
Research Mentee Training							
Research Mentor Training							
Shark Tank							
Institutional Mentoring Academy Planning							

REFERRING

Career Development Webinars							
NRMNet Portal							

PROMOTING

NRMN Ambassadors							
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Defining Mentoring

A **collaborative learning relationship** that proceeds through purposeful stages over time and has the primary goal of helping mentees acquire the essential competencies needed for success in their chosen career.

It includes using one's own experience to guide another through an experience that requires **BOTH personal and intellectual growth and development.**

Applies to research mentoring, career coaching, peer mentoring, virtual mentoring, and in some cases advising.



Skill Building Across 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

NRMN serves as a national training hub to improve mentoring relationships

Activities:

- Face-to-face mentor training workshops
- Face-to-face mentee training workshops
- Self-paced online training
- Synchronous online training
- Train-the-trainer workshops
- NRMN Master Facilitators



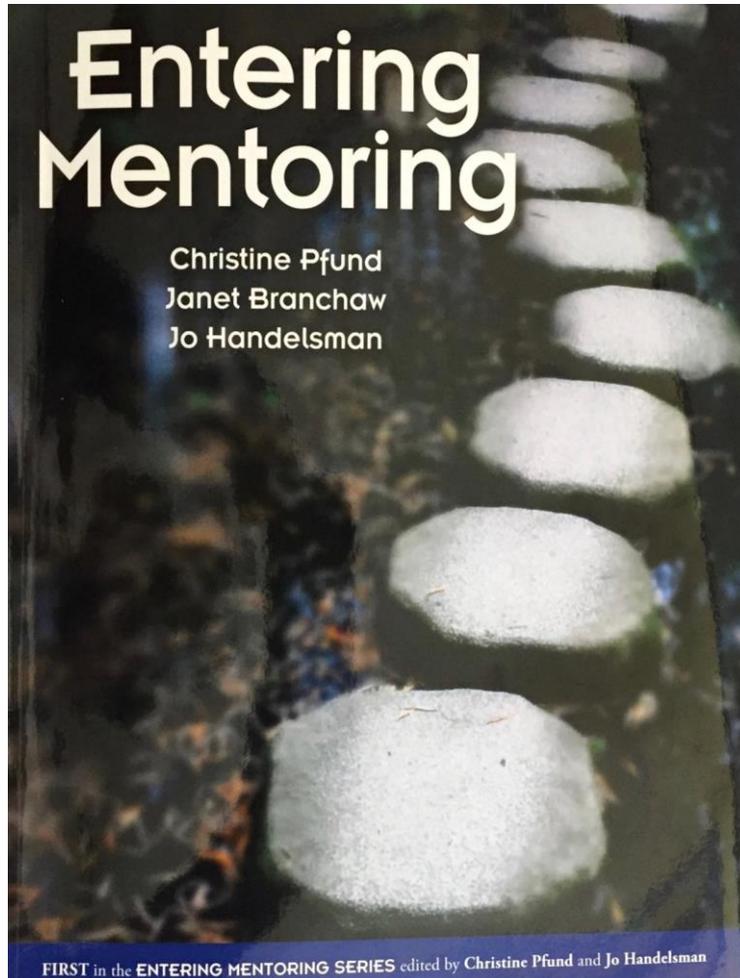
Building on over a decade of work...

HHMI



UW Institute for Clinical and Translational Research
UW ICTR

...a mentor training curriculum was developed and tested...



Key elements of mentor training:

- Process-based using case studies and group problem solving
- Aimed at awareness-raising and reflection
- 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

...with standardized competencies...

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

...and adapted it for different career stages and disciplines...

The screenshot displays the CIMER website interface. At the top, a blue navigation bar contains the CIMER logo and a menu with the following items: About, Services, Curricula, Evaluation, Additional Resources, and Login. Below the navigation bar is a grid of 13 disciplinary and career stage filters, each represented by a card with an icon, a title, a list of applicable career stages, and two buttons: 'Preview' and 'Login to Download'.

Discipline	Applicable Career Stages
Astronomy and Astrophysics	Undergraduates
Biology	Undergraduates
Biomedical	Graduates, Postdocs, Junior Faculty
Chemistry	Undergraduates
Clinical & Behavioral Health Sciences	Postdocs, Junior Faculty
Clinical & Translational	Postdocs, Junior Faculty
Community Engaged Health Sciences	Postdocs, Junior Faculty
Engineering	Undergraduate
Field Biology	Undergraduates
Math	Undergraduates
Multidisciplinary / Entering Mentoring (2nd Ed.)	Undergraduates
Physics	Undergraduates
Psychology	Undergraduates

...and published evidence regarding its effectiveness

Pfund, C., Pribbenow, C., Branchaw, J., Miller Lauffer, S. and Handelsman, J. 2006. The merits of training mentors. *Science* 311:473-474.

Pfund C, House S, Spencer K, Asquith P, Carney P, Masters K, McGee R, Shanedling J, Vecchiarelli S, Fleming M. A Research Mentor Training Curriculum for Clinical and Translational Researchers. *Clin Trans Sci* 2013; 6:26-33

Fleming M, House S, Hanson VS, Yu L, Garbutt J, McGee R, Kroenke K, Adebini Z, Rubio D. The Mentoring Competency Assessment: Validation of a New Instrument to Evaluate Skills of Research Mentors. *Acad Med*, 2013;88(7):1002-1008.

Sorkness CA, Pfund C, Asquith P, Drezner M. Research Mentor Training: Initiatives of the University of Wisconsin Institute for Clinical and Translational Research. *Clin Transl. Sci.* 2013;6(4):256-258.

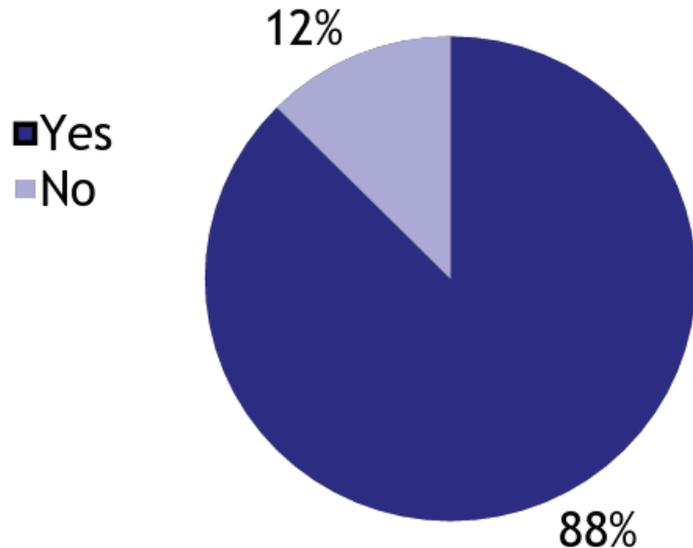
Pfund C, House SC, Asquith P, Fleming MF, Buhr KA, Burnham EL, Eichenberger Gilmore JM, Huskins WC, McGee R, Schurr K, Shapiro ED, Spencer KC, Sorkness CA. Training Mentors of Clinical and Translational Research Scholars: A Randomized Controlled Trial. *Acad Med.* 2014; 89:774-782.

Pfund, C., Spencer, K., Asquith, P., House, S., Miller, S., Sorkness, C. (2015). Building National Capacity for Research Mentor Training: An Evidence-Based Approach to Training-the-Trainers. *CBE Life Sciences Education* 14 (2).

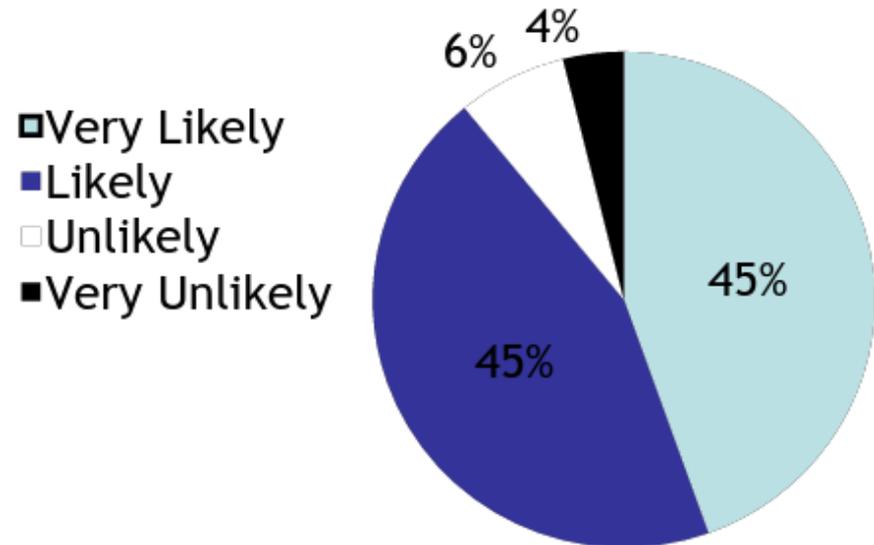
McDaniels, M., Pfund, C. and Barnicle, K. (2016). Creating Dynamic Learning Communities in Synchronous Online Courses: One Approach from the Center for the Integration of Teaching and Learning (CIRTL). *Online Learning*.

Faculty Mentor Satisfaction with Training (n=128 mentors in intervention group)

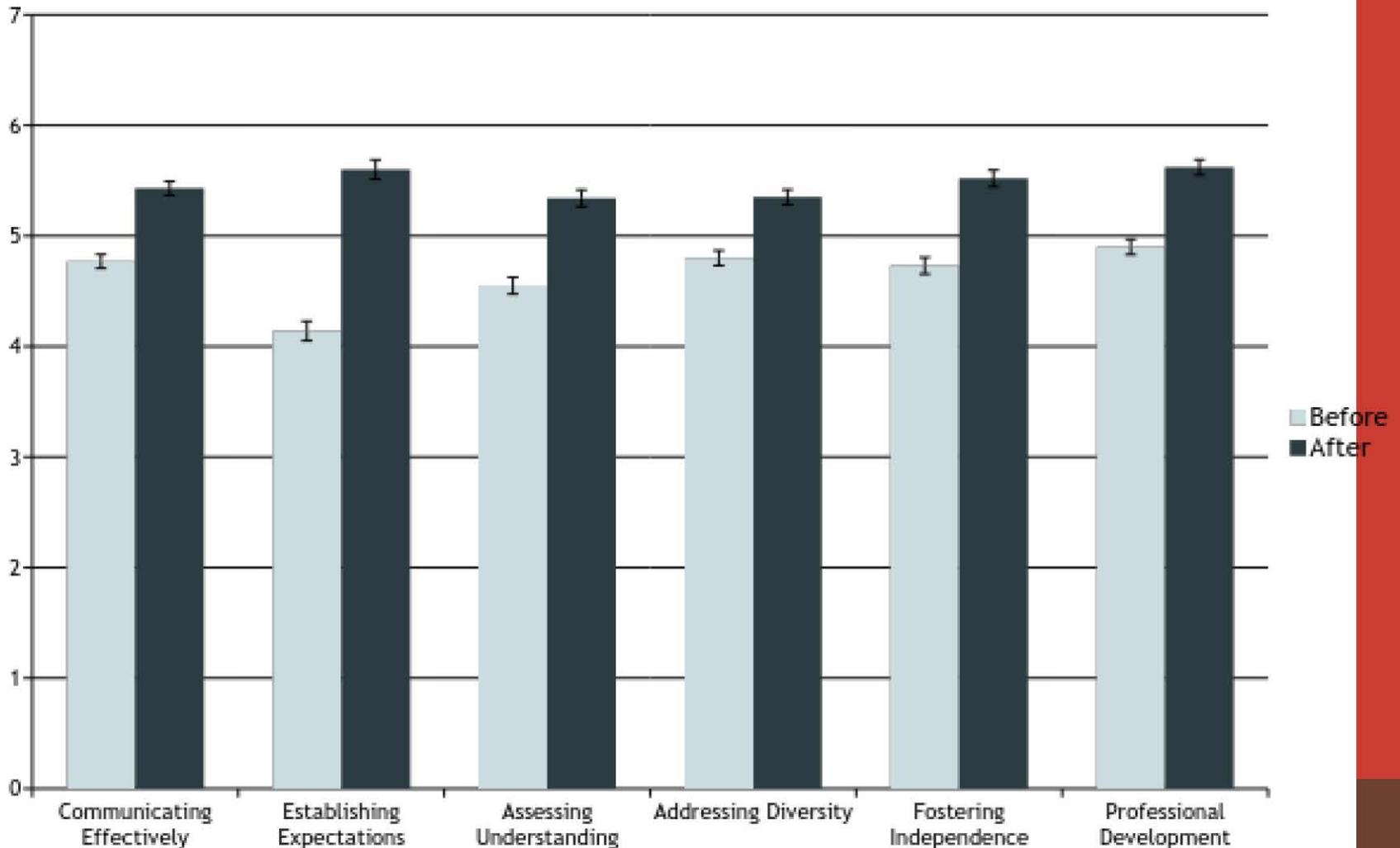
Was the 8-hour training a valuable use of your time?



Would you recommend the sessions to a colleague?

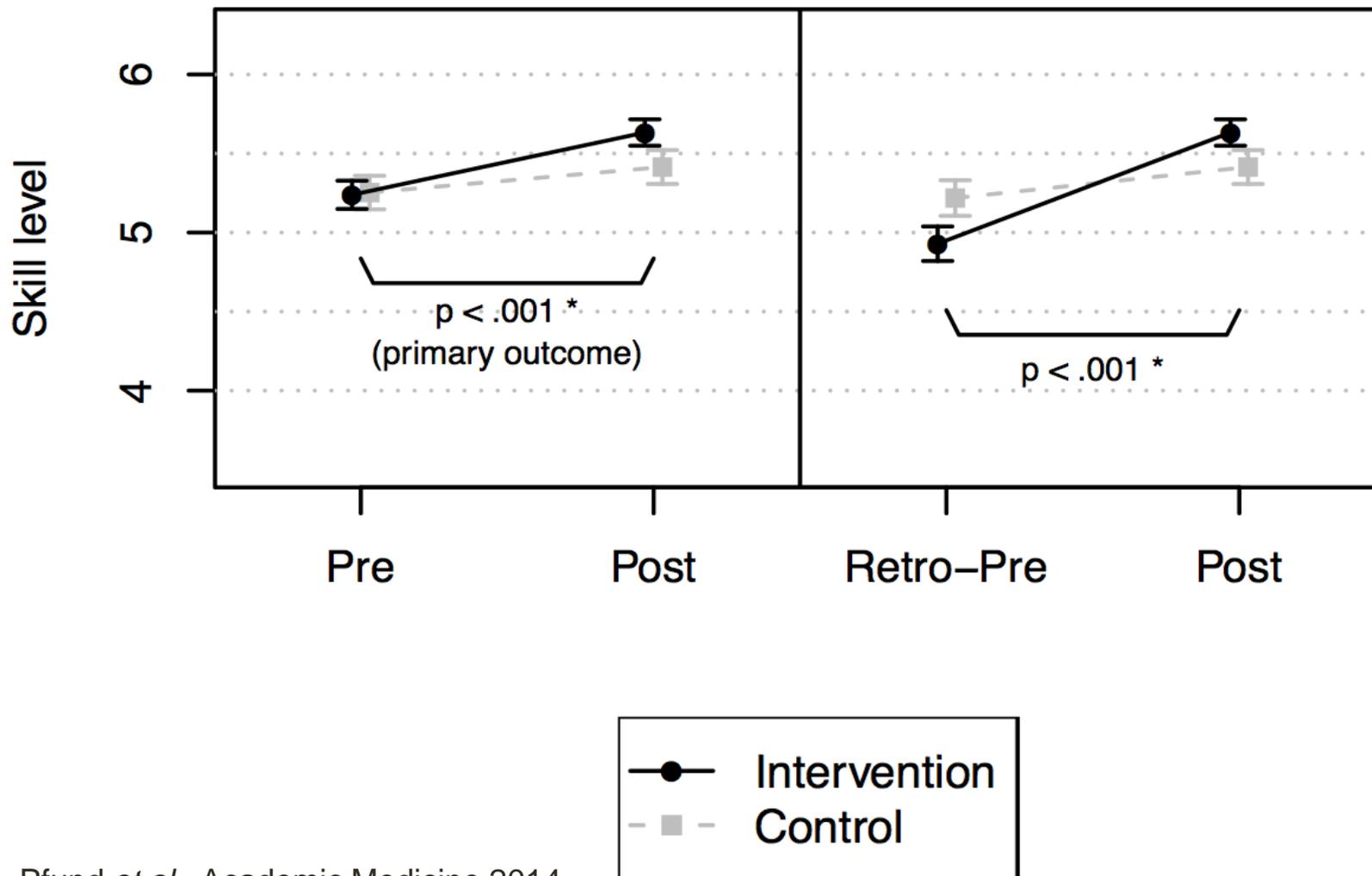


Mentor Skills Gains (n=124)



Pfund C, *et al.* 2013. A Research Mentor Training Curriculum for Clinical and Translational Researchers. *Clinical Translational Science* 2013; 6:26-33

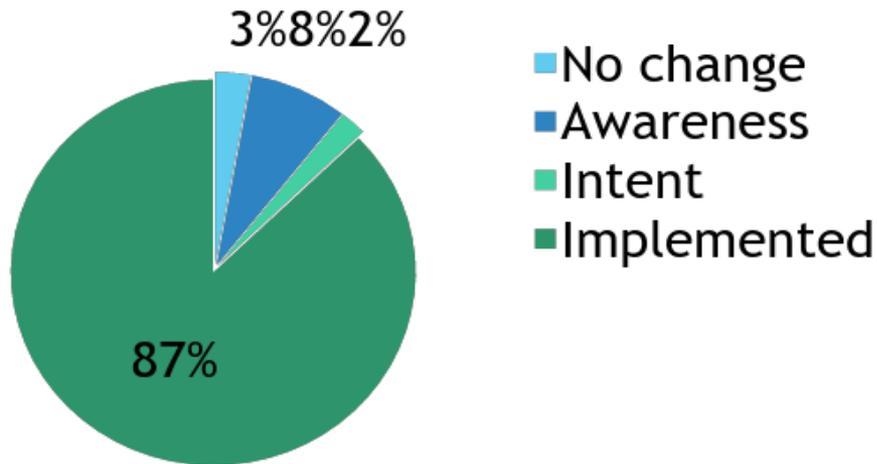
Significant Change in Mentor Self-Reported Effectiveness



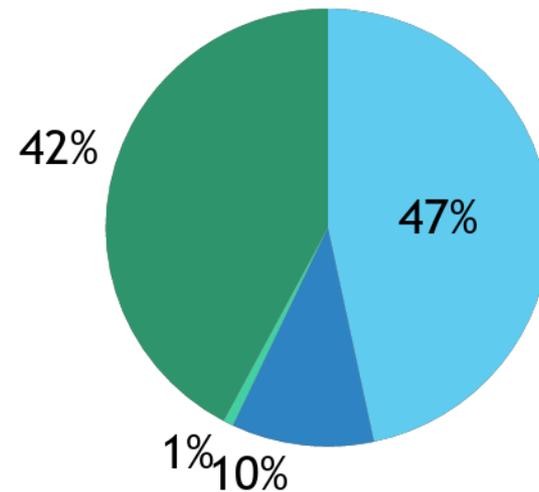
Mentor Behavioral Change

N=141; 3 months post training

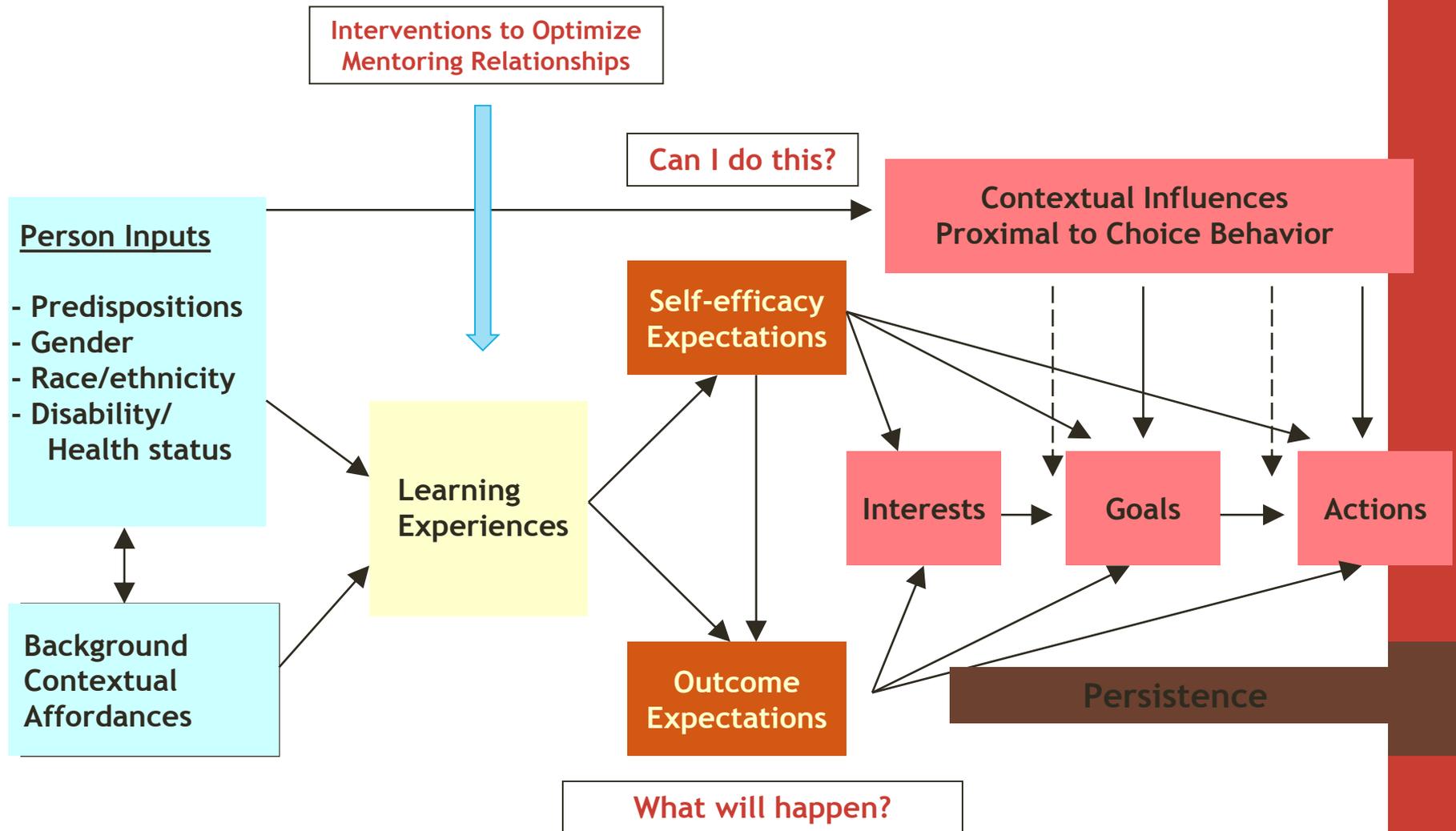
Intervention



Control



Social Cognitive Career Theory (Lent, Brown & Hackett, 1994, 2000)



Promoting Effective Communication and Alignment of Mentor-Mentee Expectations

Case Study Discussion: 10 mins

- There is a facilitator assigned at each table who will help guide the discussion
- Listen to the case read aloud
- Share your initial reactions to the case
- Discuss how each of the individuals in the case might feel and how you would have handled the situation if you were the PI.
- Consider additional discussion questions as time allows

Case Study: *The Slow Writer*

(pg 13 in your packet)

A third year graduate student in my group is adept at performing experiments and analyzing data, but is a very slow writer. Last fall, I set multiple deadlines that this graduate student missed, while another student in my group wrote an entire thesis chapter, submitted a paper, and did experiments. Over winter break, the slow writer had a breakthrough and produced a fairly reasonable draft of a prelim proposal. However, because she produced it so close to the (planned) prelim date and did not have the presentation ready either, I delayed the exam. To avoid delays in publications, I have taken the lead in writing manuscripts based on her work. However, to graduate with a PhD, I realize that she must write the dissertation, as well as the next manuscripts, herself. Setting deadlines for detailed outlines, manuscript/thesis sections, figures, etc. hasn't worked. Communicating the importance of manuscripts to the scientific endeavor hasn't worked. Encouragement hasn't worked. Veiled threats don't seem professional. Other than being patient, what should I do?

Mentoring Compacts: Making All Expectations Transparent

Mentoring Compacts: An Overview

Description:

- A written document used to articulate expectations between mentors and mentees
- Differs from an Individual development Plan (IDP) which focused on short and long-term career plans;
- Focused on expectations for the working relationship on a daily or weekly basis
- Compacts vary in their format and level of detail

Rationale:

- Provides written documentation of expectations which can be revisited and revised over time
- Serves as a shared reference point for regular progress reviews
- Makes invisible expectations, visible
- Levels the playing field among mentees

In summary, compacts provides mentors and mentees an opportunity to reflect upon and articulate their expectations and bring them into alignment

Mentoring Compacts: Example Domains to Consider

What I expect from you

- *You will take ownership of your educational experience*
- *You will develop your personal research skills*
- *You will contribute to the lab and be a good lab citizen*

What you can expect from me

- I will provide the means to pursue the scientific direction of our team.
- I am committed to mentoring you now and in the future.
- I will encourage you to attend scientific meetings and make an effort to fund these activities.
- I will be available for regular meetings and will provide timely review of research.
- I will provide a work environment that is intellectually stimulating, supportive, safe, and free from harassment.

Nuts and Bolts

- Hours and Vacation
- Individual meetings
- Group meetings
- Annual Evaluations
- Authorship

Mentoring Compacts Can Address Expectations Across A Range of Issues (Example Domains)

- ▶ Issues of research productivity (designing experiments, writing, lab notebooks, timelines, etc)
- ▶ Issues of authorship (policies, timing of decisions, raising questions, etc)
- ▶ Issues of time (work hours, vacation, sick leave, etc)
- ▶ Issue of communication (frequency of meetings, preparation for and follow-up for meetings, method of communication, annual reviews, etc)
- ▶ Issues of respect (being a good team member, contributions to lab climate, acknowledging work of others, use of phones/ earphones in the lab, etc)
- ▶ Issues of professional development and networking (attending meetings, conferences, department/ campus seminars, IDPS, etc)
- ▶ Issue of resolving conflict (when to bring up issues and with whom, institutional resources)

Research Mentor Training Website has Example Compact and Links

<https://mentoringresources.ictr.wisc.edu>
(Accessible thru NRMNet.net)

The screenshot shows the homepage of the Research Mentoring website. At the top, it features the University of Wisconsin-Madison logo and the UW Institute for Clinical and Translational Research (UWICTR) logo. The main navigation bar includes links for Home, Resources, Training, About Us, Feedback, Register, and Login. A search bar is located on the right side of the navigation bar. Below the navigation bar, a introductory paragraph states: "Effective mentoring is a key component to the advancement of the scientific research enterprise. This website is designed to provide resources to improve research mentoring relationships. It provides curricula, assessment tools and resources relevant for mentors and mentees, as well as those who would like to implement mentor training." Three main content boxes are displayed: "Mentor & Mentee Resources" with a photo of a man and a woman talking and the text "Find resources to improve mentoring across each phase of the relationship."; "Training Curricula" with a photo of a group of people in a meeting and the text "Learn about effective approaches to training mentors and how to use our freely available training materials."; and "Impact of Training" with a photo of a woman pointing at a screen and the text "View feedback from participants in our research mentor training program." Below these boxes, there is a section for NIH Office of Strategic Coordination, The Common Fund, with the text: "Our UW-Madison team is leading the Mentor Training Core of the National Research Mentoring Network (NRMN). NRMN is part of a broader NIH consortium serving mentors and mentees that will strive to enhance diversity in the biomedical research workforce." To the right of this text is a photo of a woman presenting to a group. At the bottom left, there is a thumbnail of the journal "ACADEMIC MEDICINE" and the text: "See results from a randomized controlled trial testing Mentor Training for Clinical and Translational Researchers, as well as an editorial on the study by Dr. JF Steiner." Below this is a link: "Click here for available curriculum."

Cultural Diversity Factors

- **Gender, race, and ethnicity relate to how mentees perceive their mentored research experience, what they value in a research mentor, and their self-perceptions** (Byars-Winston et al., 2010; Blake-Beard et al., 2011; Carlone & Johnson, 2007; Hurtado et al., 2009; Ishiyama, 2007; Johnson et al., 2011; Laursen et al., 2010)
- **Cultural diversity is important in all aspects of human life, including scientific training.** Mentored research experiences are the foundation of scientific training, and therefore, warrant further investigation into how cultural diversity is understood, experienced, and responded to by those involved in these experiences (*Byars-Winston, Branchaw, Pfund, Leveritt, and Newton,, 2015)

Cultural Context of Mentoring

Ignoring cultural diversity in mentoring relationships can lead to miscommunication, privileging dominant cultural norms, mismatched expectations due to differing value orientations, and conflicts in working styles

(Brown et al., 2009)

Case Study Discussion: 10 mins

- There is a facilitator assigned at each table who will help guide the discussion
- Listen to the case read aloud
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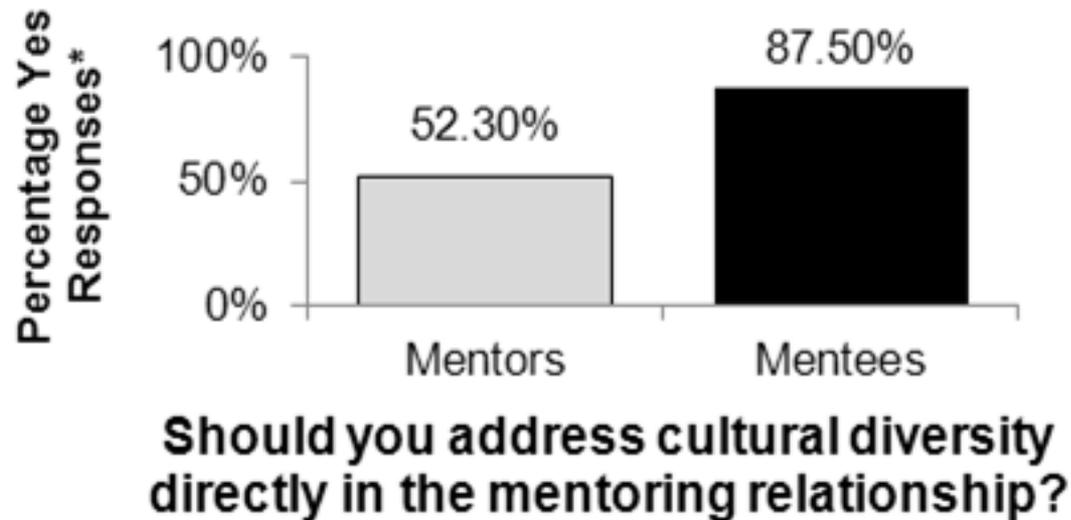
Case Study: A Question of Mentoring Bias **(pg 14 in your packet)**

You are a native-born American whose parents were born in Round-enia. You were delighted to begin your graduate research to work with Dr. Blunt, and were unconcerned that Dr. Blunt is a naturalized U.S. citizen born of a prominent family in Blunt-enia, a country with a centuries-old hostility toward Round-enia.

As with all his fellows, Dr. Blunt regularly meets with you to discuss your research. Blunt has given you fair feedback on your work. By the end of the 9th month of your graduate training, you feel your projects are well defined, on track and you are enjoying the research. You have begun to notice that Dr. Blunt spends a great deal of time interacting informally in the lab and socially outside the lab with his several Blunt-enian trainees. When visiting scientists come to the lab for a panel or seminars, Blunt seems more likely to introduce his Blunt-enian fellows to the visitor than his non-Blunt-enian fellows at dinner. Dr. Blunt also spends time in mentoring career discussions with his other fellows, but discusses only the research project with you.

You feel that you are not getting as rich of a professional development experience as the Blunt-enian students with whom Dr. Blunt seems more comfortable. In fact, Dr. Blunt seems even more formal and impersonal in his private dealings with you than with any of his other fellows. You suspect this may reflect the fact that you are the only Round-enian in the group.

Mentor and Mentee Views on Addressing Cultural Diversity in Research Mentoring Relationships



* Results compare Yes responses with those responding No or not indicating an opinion.

Byars-Winston A, Pfund C, Branchaw J, Leverett P, Newton, J. (2015). Culturally diverse undergraduate researchers' academic outcomes and perceptions of their research mentoring relationships. *International Journal of Science Education*.

There is a mismatch between what URM students are experiencing and what [White] mentors are prepared to address

- ❖ URM STEM students want to talk with mentors about:
 - race/ethnicity matters
 - how race/ethnicity influence academic, career development
 - ways to overcome barriers related to race/ethnicity (e.g., Muller et al., 2012).
- ❖ Mentors often unaware of “racial realities” of some trainees
- ❖ White mentors tend toward colorblind attitudes (Prunuske et al., 2013)

Discussion Questions:

How do you discuss underrepresented student achievement in a culturally sensitive manner: Fellowships and Awards?

How do you demonstrate sensitivity around 'minority fellowships' versus 'general fellowships'?

Drafting an Implementation Plan

(pg 15 in your packet)

- Recruitment strategies
- Stakeholder support
- Training details
 - Which training and for whom?
 - Which format? (e.g., integrated or stand-alone)
 - How many participants?
 - When?
 - Who will facilitate and co-facilitate?
- Resources
- Evaluation

Resources for Your Implementation

(pg 17 in your packet)

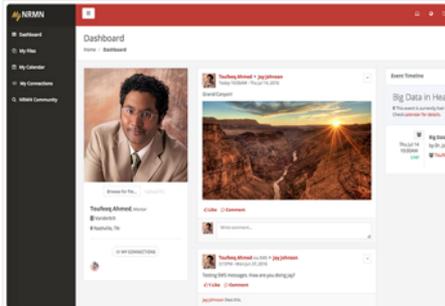


#1: NRMNet for Links to Everything



[NRMN Accounts](#) [Home](#) [Profile](#) [Log Out](#)

NRMN Applications



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[Take Me There](#)

PROMOTING



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Resource #2: Virtual Guided Mentorship and MyNRMN

The image displays the MyNRMN (National Research Mentoring Network) website interface. At the top, the NRMN logo and "National Research Mentoring Network" text are on the left. On the right, there are links for "MY NETWORK" and "LOG OUT", along with "View Profile", "Edit Profile", and "Chat Messages". A "MentorNet" logo is also present, with the tagline "Experience a Quality Training A Division of Grant-Minded STEM".

The main content area shows a user profile for "Rebecca Test Person" with "Testing info" and "test" details. To the right, a "Recommendations" section lists three individuals: Ricardo Gonzalez-Mendez (Computational Biophysicist at University of Puerto Rico Medical Sci...), Marc Cox (Associate Professor in Molecular Endocrinology and Toxicology at UT...), and Amber Smith (Director of Mentor and Mentee Training at UW-Madison). Below this is a "My Network" section with a link to "click on photo to invite a former mentor or to chat".

A sidebar on the left contains a "How To Send An Invitation To A Recommended" message with a video icon and the text: "Questions? Let us know at program@mentornet.net. Click on the info bubble to close this message." Below the sidebar is a navigation menu with items: Dashboard, My Files, My Calendar, My Connections, NRMN Community, and Resume Builder.

The main dashboard area features a "Dashboard" header with "Home / Dashboard" links. It includes a profile card for "Summerly Brown" (Mentee) at "UNT Health Science Center" in "Fort Worth, TX", with a bio: "Finding the ongoing balance between science and technology". Below the profile is a "MY CONNECTIONS" section showing a list of users.

On the right side of the dashboard, there is a social feed with three posts from "Summerly Brown" to "Alp Deveci":

- Post 1: "Hi There" (8:48PM - Wed May 25, 2016) with "Like" and "Comment" options.
- Post 2: "Test Test" (10:04AM - Wed May 25, 2016) with "Like" and "Comment" options.
- Post 3: "Howdy Test Test" (3:42PM - Fri May 20, 2016) with "Like" and "Comment" options.

At the bottom right, there is an "Event Timeline" section with the text "No events to display." and a "Summerly" user profile icon.

Resource #3: Toolkit Resource: Phases of the Mentoring Relationship

<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 diversity 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



Our UW-Madison team leads the Mentor Training Core of the [National](#)

Resource #4: Complete research mentor training curricula (www.cimerproject.org)

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Field	Target Audience	Buttons
Astronomy and Astrophysics	Undergraduates	Preview, Login to Download
Biology	Undergraduates	Preview, Login to Download
Biomedical	Graduates, Postdocs, Junior Faculty	Preview, Login to Download
Chemistry	Undergraduates	Preview, Login to Download
Clinical & Behavioral Health Sciences	Postdocs, Junior Faculty	Preview, Login to Download
Clinical & Translational	Postdocs, Junior Faculty	Preview, Login to Download
Community Engaged Health Sciences	Postdocs, Junior Faculty	Preview, Login to Download
Engineering	Undergraduate	Preview, Login to Download
Field Biology	Undergraduates	Preview, Login to Download
Math	Undergraduates	Preview, Login to Download
Multidisciplinary / Entering Mentoring (2nd Ed.)	Undergraduates	Preview, Login to Download
Physics	Undergraduates	Preview, Login to Download
Psychology	Undergraduates	Preview, Login to Download

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

<http://cimerproject.org/#/customCurricula>

The screenshot shows the CIMER Project website's search interface for custom curricula. The top navigation bar includes links for About, Services, Curricula, Evaluation, Additional Resources, My Surveys, My Curricula, and Logout. A search bar is labeled "Search Custom Curricula". On the right, there is a "Save & Download Book" button with a book icon and the number "0".

Below the search bar, there are filters for Competencies (All), Disciplines (All), and Career Stages (All). The main content area is titled "Addressing Equity and Inclusion" and displays a grid of 12 training materials. Each material card includes a title, an icon, a list of associated competencies and career stages, and buttons for "Preview" and "Add to Book".

Activity	Activity	Activity	Case Study	Activity	Activity
Reflecting on Diversity	Reflect on Unconscious Assumptions	Implications of Diversity Research	Is it OK to Ask?	Share Experience as Outsider	Dig Deeper
• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc
▶ Preview	▶ Add to Book	▶ Preview	▶ Add to Book	▶ Preview	▶ Add to Book

Case Study	Activity	Activity	Activity	Activity	Activity
Cultural Sensitivity	Addressing Equity and Inclusion Full Session	Reflecting on Diversity	Reflect on Unconscious Assumptions	Instructions: 3 Case Studies on Equity and Inclusion	Outsider Experience
• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Clinical and Translational Sciences • Junior Faculty • Post Doc	• Addressing Equity and Inclusion • Biomedical • Graduate • Post Doc	• Addressing Equity and Inclusion • Biomedical • Graduate • Post Doc	• Addressing Equity and Inclusion • Biomedical • Graduate • Post Doc	• Addressing Equity and Inclusion • Biomedical • Graduate • Post Doc
▶ Preview	▶ Add to Book	▶ Preview	▶ Add to Book	▶ Preview	▶ Add to Book

Planning Resource: Scheduling

<http://cimerproject.org/#/curricula/planning>

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

Evaluation Resource: Mentoring Competency Assessment (MCA)

<http://cimerproject.org/#/evaluation/mentor-training>



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Coordinated Data Collection

In partnership with the National Research Mentoring Network, CIMER can provide customized mentor training assessments which includes the Mentoring Competency Assessment (MCA). This allows easy data collection and reporting for you and helps us to collect a national dataset to inform ongoing research mentor training efforts. See the flowchart below for details. The MCA is a validated 26-item skills inventory that enables research mentors and mentees to evaluate six competencies of mentors: maintaining effective communication, aligning expectations, assessing understanding, addressing diversity, fostering independence, and promoting professional development. [View the article on the MCA validation.](#)

Evaluating Your Training

Contact [Jenna Rogers](#) or [Kim Spencer](#) to get started!



Resource #5: Online self-study for mentors of grads, postdocs, and faculty

<http://z.umn.edu/OptimizingMentoring>

The screenshot shows the University of Minnesota website header with the logo and tagline "UNIVERSITY OF MINNESOTA Driven to Discover™". Navigation links include "myU", "One Stop", and a search bar. The main navigation bar contains "Home", "About", "Consultations and services", "Researcher resources", "Education and training" (highlighted), "Community members", and "News and events".

The page title is "Clinical and Translational Science Institute" with the tagline "Helping researchers be more successful". A "HEALTH SCIENCES" dropdown menu and "PORTAL LOGIN" link are visible.

The left sidebar lists navigation options: "Career development programs", "Online training courses", "Mentoring" (with "Mentor training" highlighted), "Become a mentor", "Mentor of the Year Award", "Seminars", "Degree programs", and "Clinical research professionals".

The main content area is titled "Mentor training" and includes a breadcrumb trail: "Home » Education and training » Mentoring". The main heading is "Optimizing the Practice of Mentoring: An Online Curriculum for the Professional Development of Research Mentors".

The text describes the course: "The Clinical and Translational Science Institute has developed a free, self-paced, online, professional development course designed to prepare faculty from a range of disciplines to be effective research mentors for junior faculty, post-doctoral fellows, and graduate students."

Two call-to-action buttons are present: "Register" with the text "Registration takes 5 minutes and will provide you with immediate access to the course." and "Log in" with the text "Already registered? Log in to reaccess the course at any time."

Resource #6: Recognition Resource: Become an NRMN Certified Facilitator

Requirements:

- Join NRMN and set up MyNRMN profile
- Implement mentor training successfully
- Share evaluation data
- Complete application

Benefits:

- Leverage this credential at your home institution
- Access to online facilitation resources and virtual space to share resources
- Stay connected to NRMN

For more information contact Stephanie House at house2@wisc.edu



@NRMNet



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Thank you!



University of Wisconsin
SCHOOL OF MEDICINE
AND PUBLIC HEALTH



WCER
WISCONSIN CENTER FOR EDUCATION RESEARCH



Center for the Improvement of
Mentored Experiences in Research



UW Institute for Clinical and Translational Research
UW ICTR



UNIVERSITY OF WISCONSIN
Center for Women's
Health Research



HHMI



Research Mentor Training Funding

- Original *Entering Mentoring* curriculum (HHMI Professors Program, PI: Handelsman)
- Adapted for use across science, technology, engineering, math, and social sciences (NSF #0717731, PI: Pfund) and clinical and translational science (CTSA) award mentors (NIH/NCRR ARRA UL1RR025011, PI: Dresner)
- Workshops and curricula have been developed for faculty mentors (NSF #0717731, PI: Pfund) including training workshops for T32 and R25 trainer
- NIH has funded a study to develop better understanding of specific factors in mentoring relationships that account for positive student outcomes (NIH #1R01GM094573 PI: Byars-Winston, co-I: Pfund) and renewal to focus on cultural aspects of mentoring relationships (NIH #R01GM094573 PIs: Byars-Winston and Pfund)
- The curriculum has been adapted for use in a synchronous, online venue through the NSF-funded Center for the Integration of Research, Teaching and Learning (CIRTL) Network (NSF DUE-0717768, PI: Mathieu)
- CIRTL and APS partnered to adapt the curriculum for physic mentors.
- NIH has funded legacy website (3UL1RR025011-05S1, PI: Drezner), randomized controlled trial (3UL1RR025011-03S1, PI: Drezner) and train-the-trainer workshops (R13GM106445, Co-PIs: Pfund and Sorkness)
- NIH as funded the National Research Mentoring Network (NRMN) (U54 MD0009479; U54 GM119023; PIs Burgess, Ofili, Okeyemi, Pfund, and Vishwanatha)