Mentoring to Achieve Research Independence (MATRIX)
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

AGENDA

UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH
MATRIX 2023 OPENING CEREMONY

Wednesday, January 25, 2023
12-1:30 PM
Room 3110A HSCL

12:00 pm: Welcoming remarks/Dean introduction
12:05 pm: Dean Robert Golden remarks
12:15 pm: Mike Koenigs - Coaching experiences/responsibilities
12:25 pm: Melissa Rosenkranz - Mentee experiences/responsibilities
12:35 pm: Debbie Meltzer - MATRIX overview and rules of engagement
12:50 pm: Lori Uttech-Hanson – General program housekeeping
12:55 pm: Q & A
1:00 pm: Small Group - Meet with Pod/Team

*Catered lunch to be provided
<table>
<thead>
<tr>
<th>Coach-Mentee Matches</th>
<th>Department</th>
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<tbody>
<tr>
<td><strong>TEAM 1</strong></td>
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<tr>
<td><strong>POD 1 COACH: Brad Astor</strong></td>
<td>Medicine</td>
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<tr>
<td>Mentee: Anand Narayan, Assoc Prof</td>
<td>Radiology</td>
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<td>Mentee: Vinaya Bhatia, Assoc Prof</td>
<td>Urology</td>
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<td><strong>POD 2 COACH: Bruce Klein</strong></td>
<td>Pediatrics</td>
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<tr>
<td>Mentee: Valentina Lo Sardo, Asst Prof</td>
<td>Cell &amp; Regen Biology</td>
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<td>Mentee: Matthew Harer, Assoc Prof</td>
<td>Pediatrics</td>
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<td><strong>TEAM 2</strong></td>
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<td><strong>POD 3 COACH: Corinne Engelman</strong></td>
<td>Pop Health Sc</td>
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<tr>
<td>Mentee: Farrah Madison, Asst Prof</td>
<td>Integrative Biology (L&amp;S)</td>
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<td>Mentee: Larissa Albantakis, Asst Prof</td>
<td>Psychiatry</td>
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<td><strong>POD 4 COACH: Mike Koenigs</strong></td>
<td>Psychiatry</td>
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<tr>
<td>Mentee: Ali Pirasteh, Asst Prof</td>
<td>Radiology</td>
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<td>Mentee: Edmond Ramly, Asst Prof</td>
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<td><strong>TEAM 3</strong></td>
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<td><strong>POD 5 COACH: David Evans</strong></td>
<td>Path Lab</td>
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<tr>
<td>Mentee: Tu-Anh Huynh, Asst Prof</td>
<td>Food Science (CALS)</td>
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<tr>
<td>Mentee: Vanessa Leone, Asst Prof</td>
<td>Animal &amp; Dairy Science, CALS</td>
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<td><strong>POD 6 COACH: Donna Neumann</strong></td>
<td>DOVS</td>
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<td>Mentee: Elebeoba May, Assoc Prof</td>
<td>Medical Microbiology</td>
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<td>Mentee: Roomasa Channa, Asst Prof</td>
<td>DOVS</td>
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<td><strong>TEAM 4</strong></td>
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<td><strong>POD 7 COACH: Sarah Gong</strong></td>
<td>DOVS, BME</td>
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<tr>
<td>Mentee: Jeremy Kratz, Asst Prof</td>
<td>Medicine</td>
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<td>Mentee: Narendra Thapa, Scientist III</td>
<td>Admin</td>
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<td><strong>POD 8 COACH: Susan Thibeault</strong></td>
<td>Surgery</td>
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<tr>
<td>Mentee: Joshua Roth, Asst Prof</td>
<td>Orthopedics &amp; Rehab</td>
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<td><strong>TEAM 5</strong></td>
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<td><strong>POD 9 COACH: Alan McMillan</strong></td>
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<td>Mentee: Courtney Balentine, Assoc Prof</td>
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<td><strong>POD 10 COACH: Vivek Prabhakaran</strong></td>
<td>Radiology</td>
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<tr>
<td>Mentee: Andrew Wentland, Asst Prof</td>
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<tr>
<td>Mentee: Anoop Mayampurath, Asst Prof</td>
<td>Biostats</td>
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<td><strong>TEAM 6</strong></td>
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<td><strong>POD 11 COACH: Deneen Wellik</strong></td>
<td>Cell &amp; Regen</td>
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<tr>
<td>Mentee: Alex Birbrair, Asst Prof</td>
<td>Dermatology</td>
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<tr>
<td>Mentee: Huy Dinh, Asst Prof</td>
<td>Oncology</td>
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<tr>
<td>Mentee: Adam Kuchnia, Asst Prof</td>
<td>Nutritional Sciences (CALS)</td>
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<td><strong>POD 12 COACH B: Wei Xu</strong></td>
<td>Oncology</td>
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<td>Mentee: Daniel Matson, Asst Prof</td>
<td>Path &amp; Lab Med</td>
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<td>Mentee: David Al-Adra, Asst Prof</td>
<td>Surgery</td>
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<td>Mentee: Andrea Galmozzi, Asst Prof</td>
<td>Medicine</td>
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COACH TIPS & REMINDERS

☐ Schedule small group monthly meetings with mentees/pod; frequency will be determined collaboratively by your pod/team.

☐ Record attendance of monthly small group meetings in log; this sheet will be posted in your Box folder (example included in folder).

☐ You have a $500 hosting budget to supply meals for your monthly meetings; e.g. breakfast meetings, pizza after work, etc. Please follow the “Meal Payment Form Instructions” found in your folder to be reimbursed for meals/expenses. Remember that UW does not pay for alcohol.

☐ Set up individual meetings with mentee(s) as needed.

☐ You will receive an invite to a Box folder with your Pod and Team to share/post documents, such as mentee proposal sections, etc. This folder contains the application materials of your mentee(s).

☐ Refer to timeline and handout on Small Group Discussion - Suggested Topics to identify flow of topics to cover at small group meetings.

☐ Work with mentee on Chalk Talk - Attend mentee Chalk Talk.

☐ Review mentees’ proposal sections.

☐ Work with mentee to help identify an internal subject matter expert (ISME) within two months of starting the program (March). Encourage mentee to refer to “Scholar Insight / Research at UW-Madison” website as a resource). See additional links at https://apir.wisc.edu/faculty-staff/faculty-scholarly-activity/.

☐ Work with mentee to help identify and recruit an external subject matter expert (ESME) to provide an NIH-style review of mentee’s grant proposal at least 6 weeks before it is ready to submit.

☐ Attend Closing Event (October TBD).

☐ Respond to mid-year and post-program MATRIX evaluation surveys, which are designed to gain feedback for continuous program improvement.

☐ Reach out to MATRIX staff if you have any questions or concerns; we are here to help!
MATRIX RESOURCE LIST

- **medRAMP: SMPH Research Administration & Proposal Development Office**: Provides pre-award project management and grant development services. Website includes a Grants Library Repository (example grants), Funding Opportunities, Templates/Examples, Grant Writing Resources, and more.
  - [https://grantslibrary.med.wisc.edu/](https://grantslibrary.med.wisc.edu/)

- **MATRIX BOX Folders**: Each Pod and Team will have access to a Box folder to share documents.

- **Virtual NIH Grants Conference & PreCon Events**: NIH Grant Grants Conference is Feb. 1-2, 2023; this event is offered annually. If you register, you will be able to access recorded sessions and slides.

- **Faculty Scholarly Activity**: This website will be very useful to help MATRIX mentees identify an **Internal Subject Matter Expert (ISME)** and provides links listed below that showcase scholarly activity of UW-Madison faculty ([https://apir.wisc.edu/faculty-staff/faculty-scholarly-activity/](https://apir.wisc.edu/faculty-staff/faculty-scholarly-activity/)).
  - **Research Insight**: Internal tool to identify potential partners for collaboration, explore additional funding opportunities, and find experts at UW-Madison.
  - **Research at UW-Madison**: This website showcases the extraordinary achievements of UW-Madison faculty and scholars.

- **PIVOT**: Pivot is a database containing funding opportunities for all disciplines and project types. It includes information on federal, private, and international funding options in one search tool. With your personal Pivot account, you can sign up to receive customized funding alerts, save and return to previous funding searches, share funding opportunities directly from Pivot, and track individual funding opportunities.
  - medRAMP provides trainings on PIVOT
  - [https://pivot.proquest.com/](https://pivot.proquest.com/)

- **SMPH Intranet Research**: This an internal site provides links and resources for all phases and/or aspects of research administration.

- **SMPH Collaborate**: This event, offered several times per year, fosters connections among investigators, researchers, and learners through the sharing of research discoveries and building of community. All individuals from across campus involved in research are welcome.
  - [https://intranet.med.wisc.edu/smph-collaborate/](https://intranet.med.wisc.edu/smph-collaborate/)

- **Mentoring Resources**: ICTR provides extensive resources and training on mentorship.
  - [https://ictr.wisc.edu/mentoring/](https://ictr.wisc.edu/mentoring/)

- **Team Science**: ICTR uses a Team Science framework to support the association of investigators from different departments and schools in the formation of effective, innovative teams composed of individuals with complementary expertise. Team science experts can help investigators write specific sections of grants that apply to newly formed leadership teams or interdisciplinary collaborations, as well as provide custom training for your new or existing research group. Team Science Collaboration Planning sessions provide skill-building for research staff and early-stage investigators in team leadership and collaboration.
  - [https://ictr.wisc.edu/team-science/](https://ictr.wisc.edu/team-science/)
MATRIX Small Group Meetings – Suggested Topics for Mentors

Mentors are responsible for the content of the monthly small group meetings and ensuring discussions are respectful and constructive. It is expected that much of the time will be devoted to reviewing individual proposal sections as they are developed by the mentees. Mentors should have each mentee circulate their sections in advance and plan ahead for these reviews. A confidential Box folder for each pod has been set up to help facilitate the process of sharing proposal sections.

There are also topics that are expected to be covered throughout the course of the MATRIX Program, as scheduled by the mentors. A suggested list of topics includes, but is not limited to:

- NIH-style mock review of draft proposals
- How to identify an ISME and ESME
- Contacting the NIH Program Officer (PO) – how to select, contact, prepare
- Selecting Study Sections (e.g., match with expertise)
- Biases of Study Sections (e.g., methodology preference)
- Identifying primary reviewers and researching their subject expertise and biases (e.g., look at publications)
- Selecting collaborators
- Time management and maintaining a writing schedule
- Dealing with reviews, e.g., communicating with the Scientific Review Officer or PO after the review
- How to develop an effective “chalk talk”
- Tips to write and present information/data succinctly and clearly
- Tips and guidance on R01 proposal sections/components, such as:
  - Project Abstract
  - Bibliography
  - Facilities and Other Resources
  - Equipment
  - Budgeting
  - Research Plan (Specific Aims & Strategy)
  - Introduction to Application (for resubmissions)
  - Vertebrate Animals
  - Select Agent Research
  - Multiple PI/PD Leadership Plan
  - Letters of Support
  - Resource Sharing Plan
  - Data Management and Sharing Plan
  - Authentication of Key Biological and/or Chemical Resources
  - Human Subjects Protocol
  - Using SF424 (R&R) Application Packages (Current is Forms H)
Meal Payment Form Instructions

MATRIX Coaches - You have a $500 hosting budget to supply meals for your monthly meetings; e.g. breakfast meetings, pizza after work, etc.

Please note: UW does NOT pay for alcohol or over these maximum amounts:

- Breakfast per person maximum: $20
- Lunch per person maximum: $21
- Dinner per person maximum: $35

When you order, please provide the following documents:

- Who was in attendance at the meeting
- The agenda
- The receipt

Add Stephanie Bolle as a delegate and be reimbursed for the meal through the UW. Below are instructions on how to do this:

1. Sign into e-Reimbursement.
2. Click the Expenses WorkCenter tile.
3. Click the Delegate Entry Authority link in the links panel along the left side.
4. Click the plus sign to add an additional row.
5. Click the magnifying glass next to the blank field, then click on Advanced Lookup. Enter the Alternate’s last name in the Description field. Locate the alternate and click on their name.
6. The Authorization Level should be "Edit". If an employee chooses "Edit & Submit", it will revert to "Edit".
7. Click Save.
# MATRIX Timeline

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<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>March</th>
<th>April</th>
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<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
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<tr>
<td>Opening Event</td>
<td>Grant Writing Seminar (Feb 2, 3)</td>
<td>Seminar: Biostatistics &amp; Budget</td>
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<td>Mid-year Event, ISMEs included</td>
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<td>Mock Review/ Closing Event</td>
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### Administrators
- **Meet coaches**
  - Secure ISME
  - Chalk talks planned
  - Chalk talks presented
- **Specific Aims finalized**
- **Research Strategy**
- **Secure ESME**
  - Research Strategy finalized
  - Finalize all sections and submit full draft for review to ESME
  - Revise proposal based on critiques from ESME/ ISME

### Mentees
- **Meet mentees; get to know their major areas of research and topic of R01**
  - Discuss R01/NIH basics in terms of submission, review, funding, etc.
  - Attend Chalk Talks and discuss with mentee(s)
  - Discuss Specific Aims
  - Discuss Significance and Innovation sections
  - Discuss Research Strategy
  - Discuss Research Strategy and remaining proposal sections
  - Discuss full proposal
  - Read critiques from ESMEs/ ISMEs
  - Attend and participate in Closing Event.

### Coaches
- **Mock review of “model” R01 proposals**
- **Hold monthly meetings**
- **Meet one-on-one as needed**
## MATRIX TEAM MEETING ATTENDANCE LOG

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<td><strong>POD 1:</strong> Enter date(s) met in each month in row 4</td>
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<td><strong>POD 1:</strong> Coach Brad Astor</td>
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<td>Anand Narayan</td>
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<td>Vinaya Bhatia</td>
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<td><strong>POD 2:</strong> Enter date in row 9 if different than POD 1</td>
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<td><strong>POD 2:</strong> Coach Bruce Klein</td>
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<td>Valentina Lo Sardo</td>
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<tr>
<td>Matthew Harer</td>
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### Instructions:

1. **POD 1 (Astor):** Enter the date your POD met for each month in row 4 (see example below).
2. **POD 2 (Klein):** If your POD met the same date as POD 1, leave Row 9 empty. If your POD met a different date than POD 1, enter that date in Row 9 (see example below).
3. **BOTH PODS:** Mark an "X" next to the name of each person in attendance of your meeting.

### Example:

<table>
<thead>
<tr>
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<th>February</th>
<th>March</th>
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<td>2/27/23</td>
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<td>Anand Narayan</td>
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MATRIX PROGRAM CONTACTS

MATRIX Website:  https://intranet.med.wisc.edu/research/matrix/

MATRIX Program Email:  matrixmentoring@med.wisc.edu

Program Administrators:

Hector Valdivia, MD, PhD, Director, Cardiovascular Research Center
MATRIX Faculty Director
Email: hvaldivia@wisc.edu
Phone: 608-265-5392

Debbie Melzter, MS
MATRIX Program Director
Email: dmeltzer@wisc.edu

Lori Uttech-Hanson, CRA, MA Ed, Director, medRAMP Office
MATRIX Administrative Staff
Email: uttechhanson@wisc.edu
Phone: 920-296-5930

Christy Schulz, MS, Director, Research Administration
MATRIX Administrative Staff
Email: crschulz@wisc.edu
Mentor and Mentee Responsibilities

Christine A. Sorkness, PharmD
Senior Associate Executive Director, ICTR
Associate Director, CCHE
Professor of Pharmacy and Medicine, UW-Madison

Mentoring is...

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 person through an experience that requires **personal and intellectual growth and development**.
Mentoring is...

A complex, bi-directional relationship that...

- Occurs within a cultural context
- Has an impact on trainees’ academic and career pursuits
- Is greatly shaped by the critical role of primary research mentors

Research says mentoring matters.

Strong mentorship has been linked to:

- **Enhanced science identity, sense of belonging, and self-efficacy**

- **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)
Research says trainees from underrepresented groups are less likely to be in effective mentoring relationships.

- URMs typically receive less mentoring than their non-minority peers (Thomas et al., 2001; Helm et al., 2000; Morzinski et al., 2002)

- Minority investigators indicate that inadequate mentoring posed obstacles to obtaining funding (Ginther et al., 2011)

Mentoring Roles

- ADVISOR
- CONSULTANT
- TEACHER
- MANAGER
- ROLE MODEL
- COUNSELOR
Responsibilities of MATRIX “Grantsmanship Coaches”

- Share in-depth scientific knowledge, best practices, and success in acquiring research awards
- Demonstrate skills directed to inclusive excellence
- Apply well-practices expertise in effective proposal writing
- Complement, not replace, the mentoring and guidance from departments/divisions
- Provide constructive, timely/real-time, intense, and iterative feedback
- Facilitate camaraderie and learning in group sessions
Responsibilities of MATRIX Mentees

- Adheres to the MATRIX expectations, events, activities, and timelines
- Demonstrate initiative, innovation, and passion
- Accept constructive feedback and contribute to peer group exercises
- Develop grantsmanship confidence and self-efficacy directed to
  - Skills in conceptualizing a study
  - Skills in designing a study
  - Skills in writing a competitive grant


How do we learn to mentor effectively?

I learned from making mistakes
From watching my own mentor make mistakes
Trial and error
Mentoring can be taught using a structured, process-based research mentor training curriculum.

**Elements of Effective Mentoring Relationships (Pfund C et al, 2016)**

- **Inter/Disciplinary Research Skills**
  Knowledge, techniques, collaboration, responsible conduct of research

- **Interpersonal Skills**
  Listening actively, aligning expectations, building trust

- **Culturally-Focused Skills**
  Promoting inclusion, reducing bias and stereotype threat

- **Psychosocial Skills**
  Providing motivation, developing a sense of belonging

- **Sponsorship Skills**
  Fostering independence, promoting professional development
The Journey toward Culturally Responsive Mentoring

Mentoring practices enacted through a culturally diverse lens; alert and responsive to cultural diversity opportunities and challenges.

Recognition of one's own cultural beliefs & judgements as well as similarities & differences between one's self and a mentee.

Our Curriculum

3 evidence-based, self-paced online mentorship training modules:
1. Optimizing the Practice of Mentoring (OPM)
2. Introduction to Culturally Aware Mentorship (iCAM)
3. Enhancing Motivation Using the CARES Mentoring Model (CARES)

3 “in class” debriefings and conversations:
1. January 23, 2019: Program launch
2. April 3, 2019: Modules 1 and 2
3. May 14, 2019: Module 3 and next steps
## Optimizing the Practice of Mentoring (OPM)

- Developed by Dr. Weber-Main and University of Minnesota CTSI team
- 90-120 minutes to complete
- Core topics include:
  - Introduction to different mentoring models
  - Overview of a mentor’s roles and responsibilities
  - Navigating the phases of a mentoring relationship
  - Strategies for cultivating effective relationships with mentees
  - Addressing challenges to the mentoring process
- Text, audio, mini-presentations, self-assessments, reflection exercises, and other brief interactive activities
- Completion of a Mentoring Action Plan
- Resource toolkit

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## Introduction to Culturally Aware Mentoring (iCAM)

- Developed by Dr. Byars-Winston and the NRMN team
- 60 minutes to review
- Completion of brief readings and reflections in preparation for April 3, 2019 activities

Enhancing Motivation Using the CARES Mentoring Model (CARES)

- University of Minnesota adaptation of an in-person mentoring workshop, with foundation in self-determination theory
- 75 minutes to complete
- Mentoring approach focused on fulfilling core psychological needs that enhance a mentee’s motivation
- Motivation drives student and employee engagement, persistence, satisfaction, and performance
- “In class” debrief on May 14, 2019


ICTR
UW Institute for Clinical and Translational Research

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Acknowledgements

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