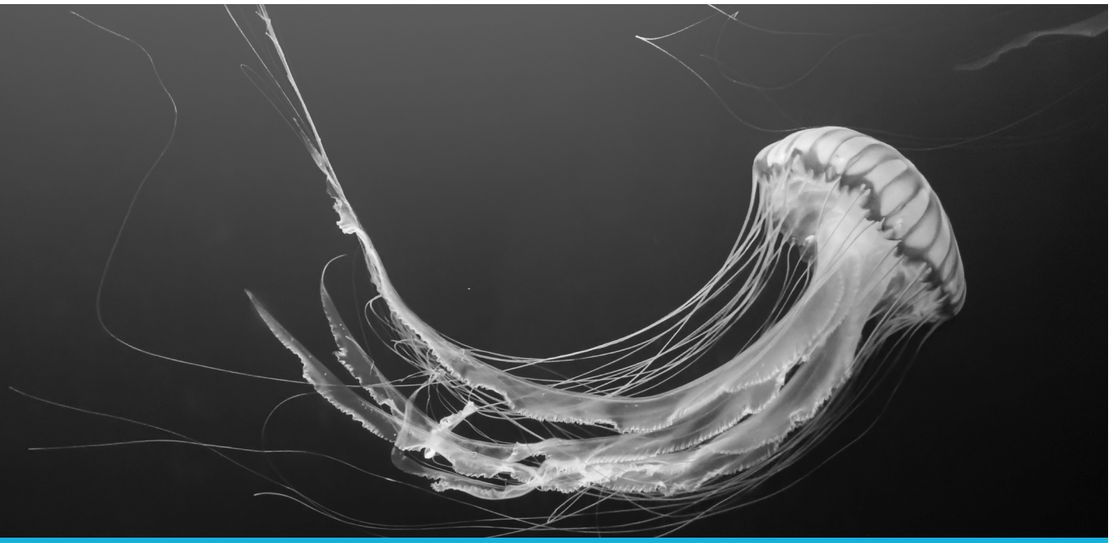
STEM-ME
STEM MENTORING ECOSYSTEMS

# PEER OBSERVATION OF MENTORING ECOSYSTEMS:

## AN EXERCISE

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INTRO

# THE PROJECT TEAM

## BERONDA MONTGOMERY, PHD

**Professor and Vice President of Academic Affairs and Dean of the College at Grinnell College**

Dr. Montgomery holds a bachelor's degree from Washington University in St. Louis (1994), a M.S. from the University of Central Arkansas (1996), and a Ph.D. from the University of California, Davis (2001). She completed a National Science Foundation Postdoctoral Fellowship in Microbial Biology at Indiana University, Bloomington (2001-2004).

Dr. Montgomery leverages her mentoring scholarship (Lessons from Plants) and pursues a common theme of understanding how individuals perceive, respond to, and are impacted by the environments in which they exist.

## BECKY WAI-LING PACKARD, PHD

**Mary E. Woolley Professor of Psychology and Education at Mount Holyoke College**

Becky Wai-Ling Packard is a Professor of Educational Psychology. She previously served as the Associate Dean of Faculty, the founding director of the Teaching and Learning Initiative, the Director of the Weissman Center for Leadership, and Senior Advisor for STEM Initiatives. In those roles she oversaw faculty mentoring, an array of cross-institution curricular/co-curricular programs, and launched a number of new initiatives.

Dr. Packard is an expert in undergraduate and peer mentoring, faculty development, student success in STEM, and strategies to develop cross-campus teams for institutional change (e.g., persistence, equity).

## JOI MONDISA, PHD

**Associate Professor of Industrial & Operations Engineering & Engineering Education Research Faculty Member at the University of Michigan**

Joi Mondisa, Ph.D., is a nationally renowned mentoring scholar, researcher, and practitioner.  Dr. Mondisa is an Assistant Professor in the Industrial & Operations Engineering Department and an Engineering Education Faculty Member at the University of Michigan.  Prior to her current role, Mondisa worked as a professional in the areas of manufacturing, operations, technical sales, and publishing for ten years.

Dr. Mondisa's research expertise includes the examination of mentoring relationships, approaches, and programs.

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## CHAPTER 1

# A STEM MENTORING ECOSYSTEMS PEER OBSERVATION EXERCISE

Much of the work that we do in academic ecosystems is to develop programs and interventions defined to establish ASSETS and mitigate GAPS in access and progress towards promoting success. In some ecosystems, many of these ASSETS are siloed in specific departments or units, or targeted very specifically at a particular population, such as undergraduates, graduate students, faculty. Increasing efficacy of mentoring across ecosystems can require development of new ASSETS. However, this is not always the case. In many mentoring ecosystems, improved efficacy in mentoring can occur through promoting SYNERGIES.

Mentoring SYNERGIES arise from sharing resources, insights, or strategically collaborating across departments, programs, or institutions. Mentoring SYNERGIES can exist across departments and institutional levels. For example, synergies can result from collaborations among program directors of undergraduate research programs, coordination of efforts among graduate program directors, or campus-wide approaches for faculty development through integrating efforts of an associate dean of faculty development with a program lead in a DEI office.

Additionally, comparisons across different campus mentoring ecosystem maps can help highlight insights about ASSETS, GAPS, and SYNERGIES that can promote advancing mentoring efforts. By examining another campus map, one can see different distributions of resources and/or different synergies that yield a range of outcomes. Such an observation can lead to an appreciation of strengths and possible missed opportunities on one's own campus.

## GETTING ORIENTED TO THE TASK

At this point, you have completed your individual worksheets and your team's current state map. Now, you will review a peer institution's current state map and answer reflection questions about their map.

STEP 1: CURRENT STATE MAP REVIEW

1. Review Peer Team's "Biggest Challenge" Comment
2. Review Current State Map

STEP 2: DISCUSSION

3. Part I - Peer Observation Process - Round I
   a. Reflect your team's observations about the CSM of the peer campus
   b. Discuss the CSM with your peer campus
4. Discuss the CSM with your peer campus
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   b. Discuss the CSM with your peer campus

CHAPTER 2

# STEM-ME MAPPING PEER OBSERVATION WORKSHEET: ROUND I: PEER INSTITUTION #1

Review your Peer Campus' Current State Map in light of their "Greatest Challenge" Comment.

1. Reading over the biggest challenge, what do you notice or wonder about? Perhaps you see an opportunity in light of a steward or champion that is available, a cluster of assets, or something else?

2. When you reflect on your own assets, champions, and stewards, do you notice any gaps for this campus, given the greatest challenge they named? If so, where and how?

3. Where are the following elements distributed across the units (departments or colleges) in the institution?
   a. Assets

   b. Champions

   c. Stewards



4. Are there apparent synergies? (e.g., stewards on campus connected to multiple assets; asset co-sponsorship or sharing, etc.) If so, where?

5. Be prepared to open the conversation with the peer campus asking about how some dimension of their current ecosystem came to be. Perhaps you notice a cluster of assets or stewards in a particular location of their system. “How did _____ come to be?”

CHAPTER 3

# STEM-ME MAPPING PEER OBSERVATION WORKSHEET: ROUND I: PEER INSTITUTION #2

Review your Peer Campus' Current State Map in light of their "Greatest Challenge" Comment.

1. Reading over the biggest challenge, what do you notice or wonder about? Perhaps you see an opportunity in light of a steward or champion that is available, a cluster of assets, or something else?

2. When you reflect on your own assets, champions, and stewards, do you notice any gaps for this campus, given the greatest challenge they named? If so, where and how?

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