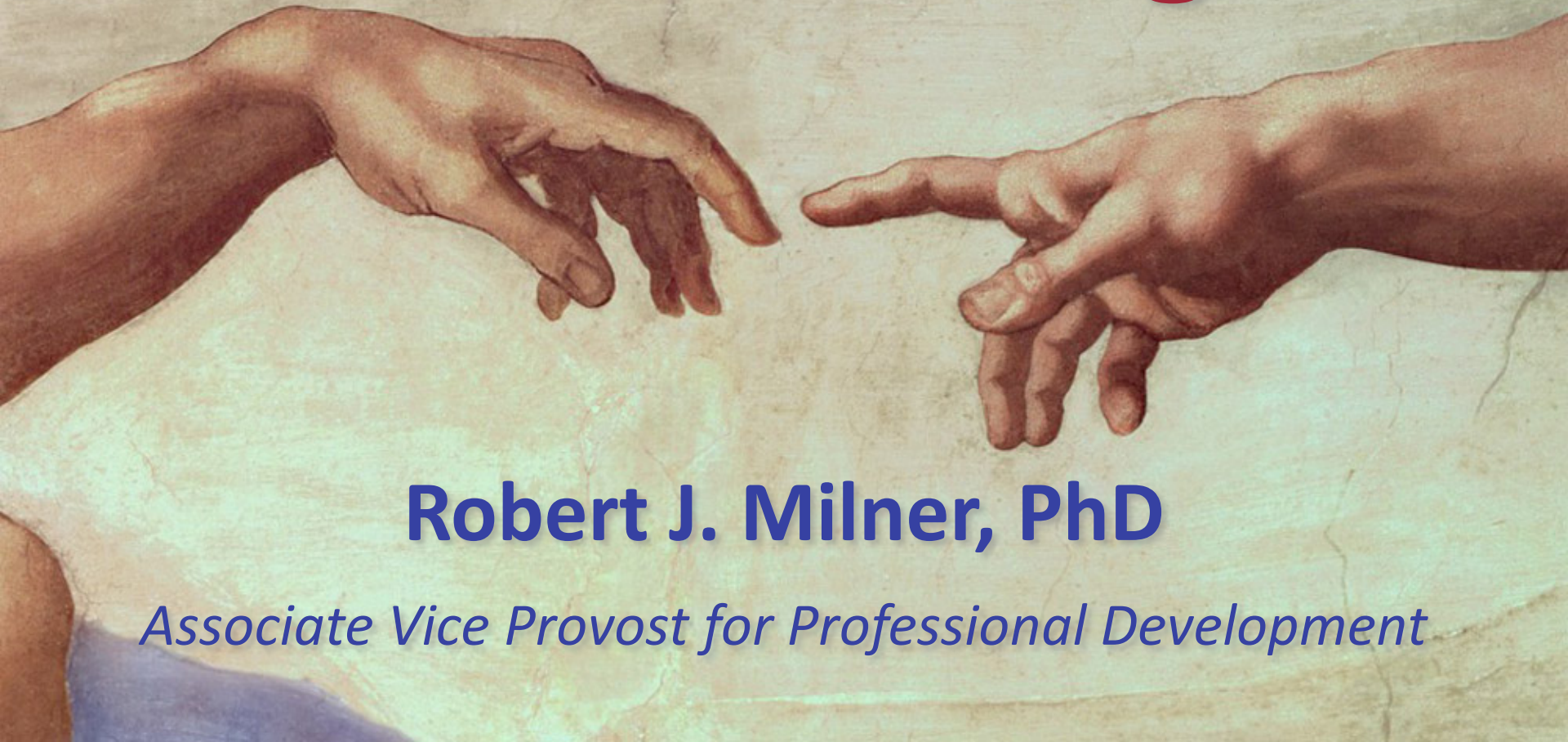


Myths & Realities of Mentoring



Robert J. Milner, PhD

Associate Vice Provost for Professional Development

The topics to be covered in this session



What is Mentoring?



Finding a Mentor

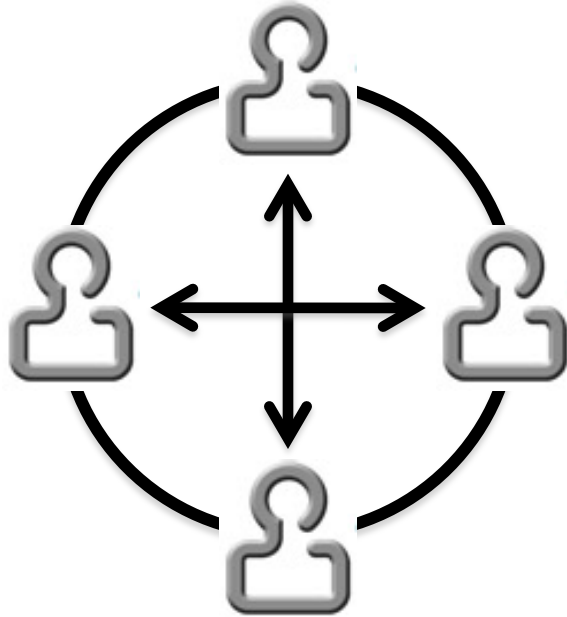


Guidance for
Mentees & Mentors

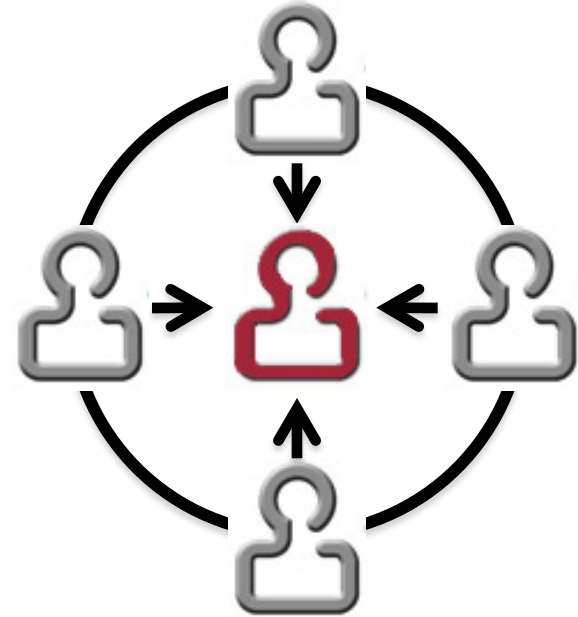


Questions
& Discussion

Mentoring is essential for effective team science — you will also need a team of mentors



**Mentoring should occur
within your team**



**Meet your mentoring
needs with a team**

***The principles and approaches we will discuss for mentoring
also apply to collaborations and team science***

I wish to acknowledge my team of mentors . . .

Luanne Thorndyke, MD

Joanna Cain, MD

Judith Ockene, PhD

UMMS Office of Faculty Affairs

Joan Lakoski, PhD

American Association of Colleges of Pharmacy

Kevin Grigsby, DSW

American Association of Medical Colleges

Some materials were extracted from

*Mentoring Clinical & Translational Science Researchers:
A Training Guide*

**My goal today is to dispel the
myths of mentoring...**



**...and replace with
evidence-based reality**



**Mentoring throughout
a professional career is
a critical key to success**

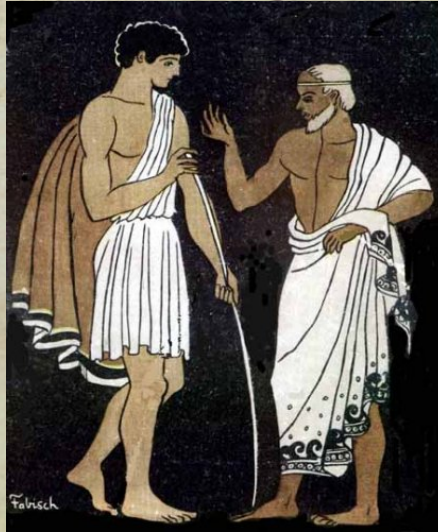
Many studies have demonstrated that mentoring is key to career success

Mentoring  ***Positive Outcomes:***

Meta-analysis of 116 papers
on youth, academic and
workplace mentoring

- ✓ behavior
- ✓ satisfaction
- ✓ relationships
- ✓ motivation
- ✓ health-related
- ✓ career

Eby et al., Does Mentoring Matter? A Multidisciplinary Meta-Analysis Comparing Mentored and Non-Mentored Individuals. *J Vocat Behav* **72**: 254–267 (2008)



What is mentoring?

A good definition of mentoring . . .

“Mentorship refers to a dynamic, collaborative, reciprocal, and sustained relationship focused on an emerging individual’s acquisition of the values and attitudes, knowledge, skills, and behaviors necessary to develop into a successful professional.”

(modified from Abedin et al. Clin. Trans. Sci. 5: 273–280, 2012)



Mentoring consists of both career and psychosocial functions

“While **career functions** serve, primarily, to aid advancement up the hierarchy of an organization, **psychosocial functions** affect each individual on a personal level by building self-worth both inside and outside the organization. Taken together these functions should enable individuals to navigate the challenges of each successive career stage.”

*Kram KE, *Mentoring at work: developmental relationships in organizational life*. (1985).

Mentoring encompasses three areas of activity



Educational:
coaching

mentee acquires and
integrates new learning



Personal:
counseling

mentee manages
transitional states



Professional:
sponsorship

mentee maximizes
potential to become an
achieving practitioner

Sambunjak & Marusic. *Mentoring. What's in a Name?*
JAMA 302: 2591 (2009).



Observable behaviors of the Mentor as *Coach*

Engages with or observes mentee during their work and provides constructive feedback

- provides guidance on research or clinical skills
- gives feedback on mentee's writing:
grants and papers
- gives feedback on mentee's presentations
- directs mentee to resources
- observes meetings or other interactions



Observable behaviors of the Mentor as *Counselor*

Provides psychosocial support:

- prepares mentee for a negotiation, difficult meeting or managing conflict
- helps mentee think about career and work/life issues
- guides mentee in setting short and long term career goals and objectives
- offers alternative options and solutions for career development



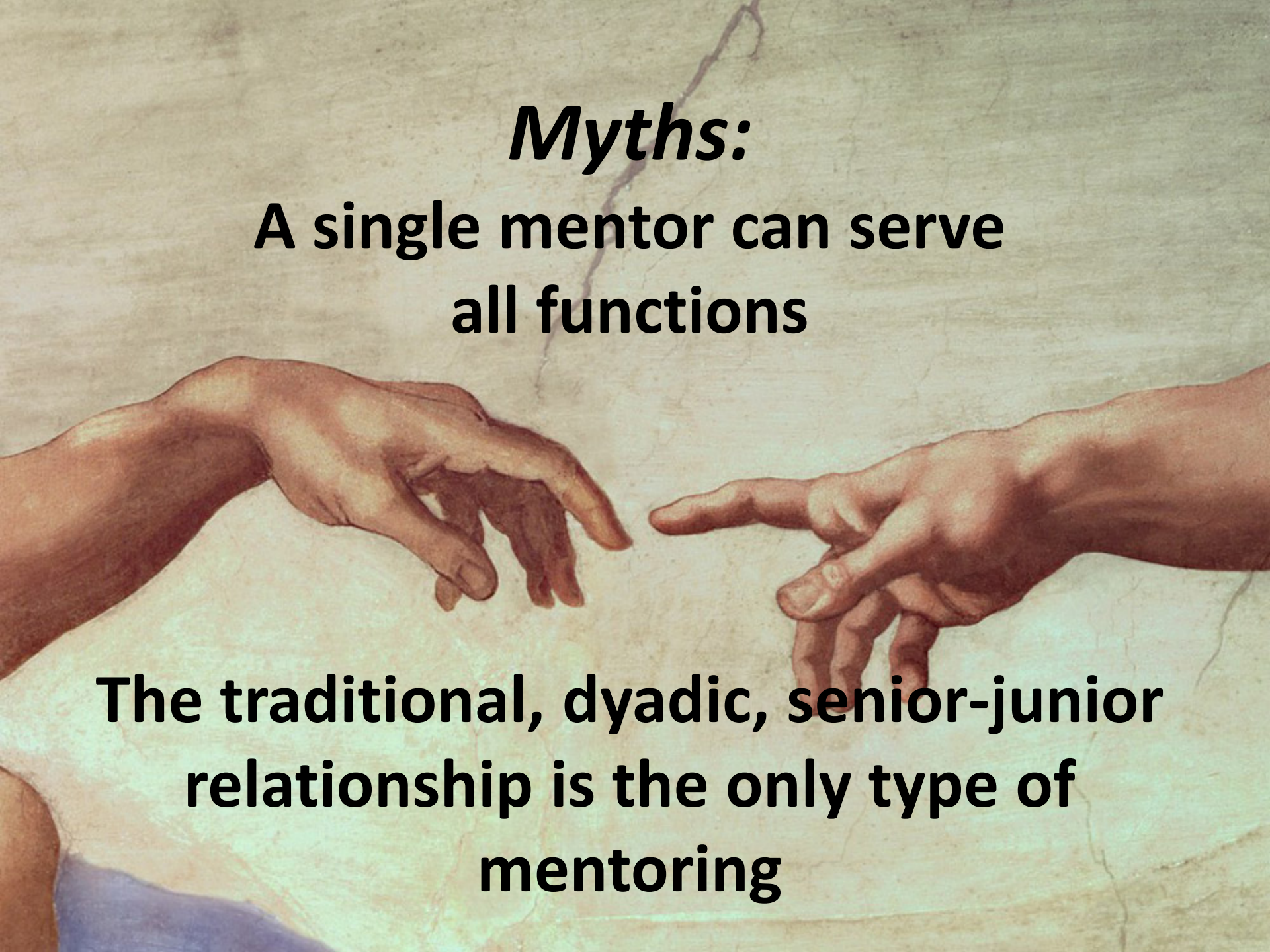
Observable behaviors of the Mentor as *Sponsor*

- Supports the growth of the mentee's career
 - facilitates referrals to mentee
 - talks up work of mentee in meetings and conversations with colleagues
 - involves mentee in projects
 - introduces mentee to leaders in the field
 - nominates mentee for awards, committees
 - advocates for the mentee

Myths:

**A single mentor can serve
all functions**

**The traditional, dyadic, senior-junior
relationship is the only type of
mentoring**

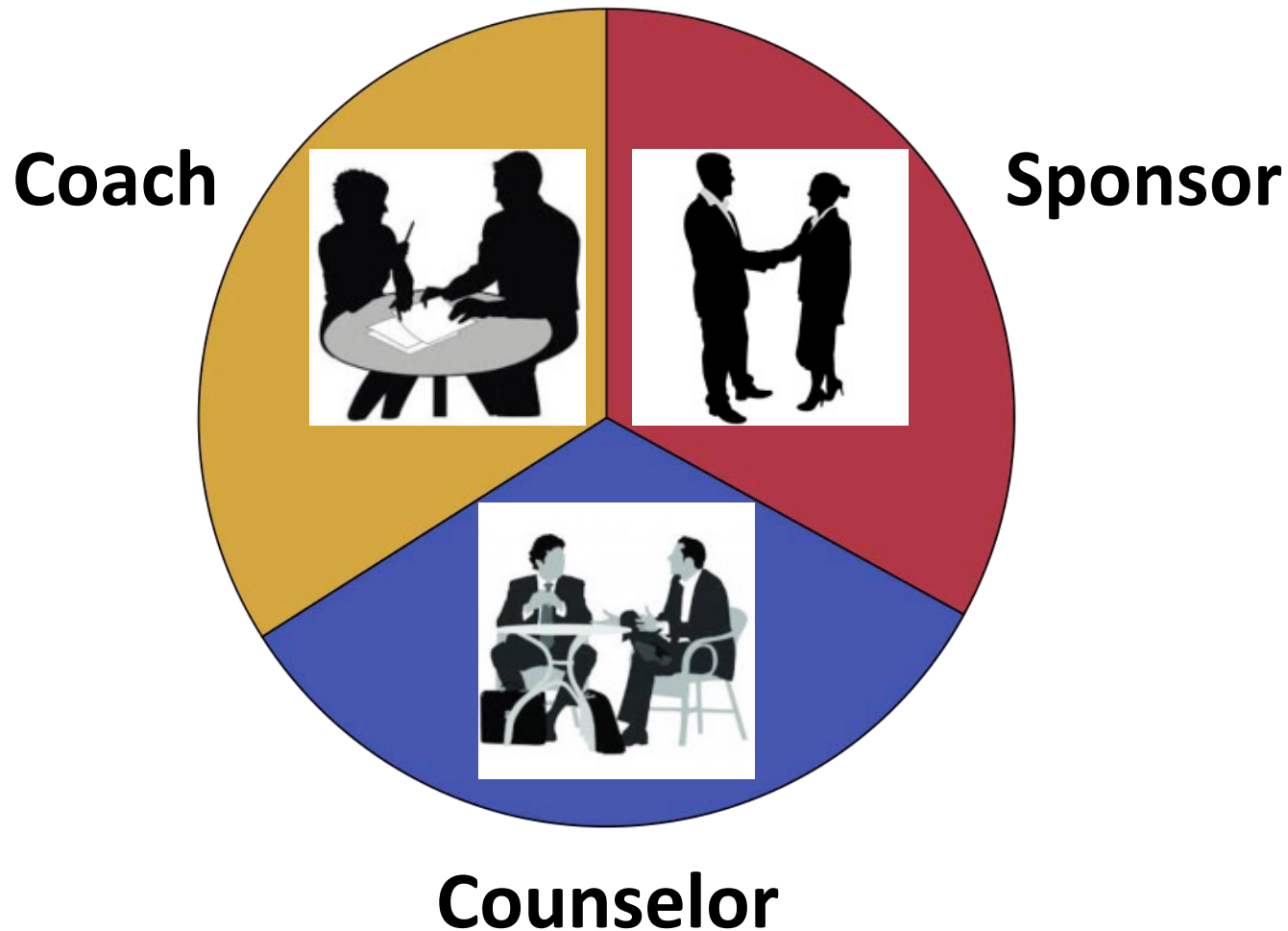


The reality . . .

A close-up of two hands shaking, symbolizing agreement or partnership. The hand on the left is light-skinned, and the hand on the right is wearing a dark blue sleeve. The background is a blurred image of a modern medical school building with a sign that says "Medical school".

Mentoring has many forms
You will need a team of mentors

An individual mentor may have different roles reflecting their mentoring strengths



It is a rare mentor who can serve all roles

You may need different mentors
to serve these roles . . . *a team of mentors*



Coach



Sponsor

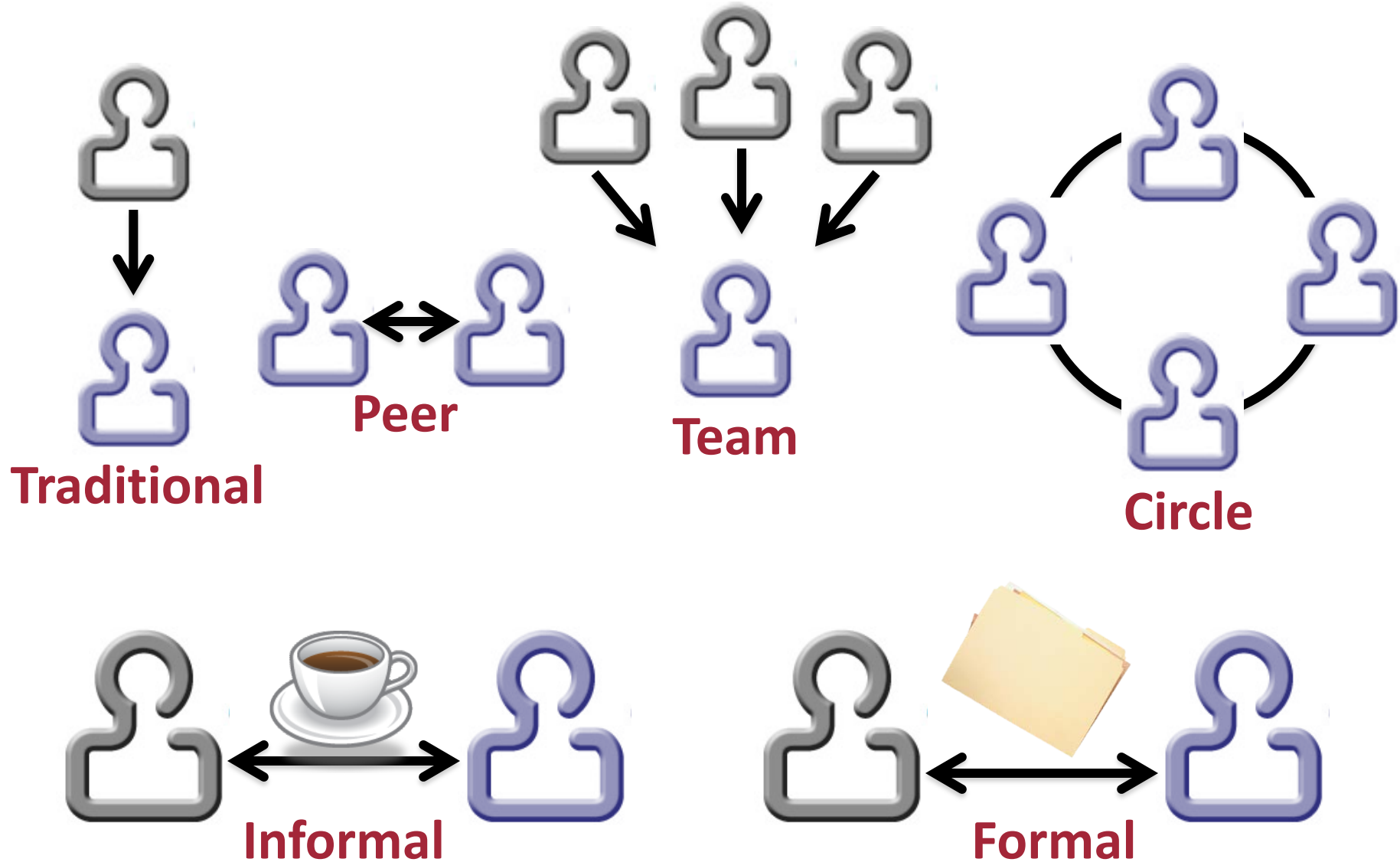


Counselor

You will also need mentors throughout your life and career



Mentoring occurs in many different forms



Myth:
Mentoring just happens

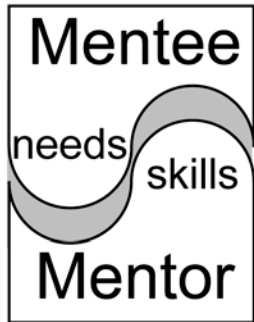


The reality . . .

A close-up of two hands shaking, symbolizing agreement or partnership. The hand on the left is a woman's hand with a white bandage on the thumb. The hand on the right is a man's hand wearing a dark blue sleeve. The background is a blurred image of a modern medical school building with a sign that says "Medical school".

**You can take deliberate steps to
establish a mentoring relationship**

Functional mentoring: a defined process to identify, establish and nurture a mentoring relationship . . .



Junior Faculty Development Program (JFDP)

— mentors are identified with the skills to match the needs of a mentee

Based on the principle that mentoring is not the goal but a means to achieve a goal:

- . . . career advancement
- . . . learning a skill
- . . . completing a project
- . . . growing a network
- . . . balancing work & family

Five steps to identify, establish and sustain a mentoring relationship . . .

1. Define your needs for mentoring



2. Identify potential mentors



3. Contact your mentor



4. Establish the relationship



5. Nurture the relationship

The same steps can be used to identify and nurture collaborators for a team science project

Step 1 Define your needs for mentoring . . .

Are you planning a research project?



What guidance do you need for the project?



Do you need help in other areas?



Where do you need guidance?



What are your needs for mentoring?

Meet Ayesha Umar, MBBS, PhD

— *Clinical Research Scholar*



Assistant Professor of Surgery
MBBS, Aga Khan University
Medical College
PhD (Cell Biology),
New York University

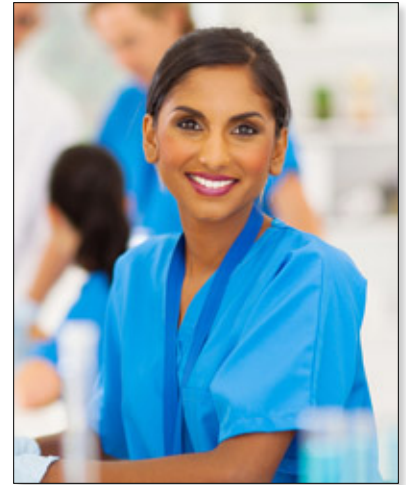
Research Project: **Role of innate immunity in
vascular changes in diabetes**

Ayesha needs to find a mentor for her project

Step 1 Ayesha Umar . . .

My project will use the *in vitro* model that I developed for my doctoral studies to study inflammatory changes in the vascular system in diabetes.

I have some experience with diabetes but no background in innate immunity.



I'd like a mentor with expertise in immunology.
Success in writing grants would be a plus!

It would be nice if the mentor was outside my department but otherwise I have no preferences.

Step 2 Identify potential mentors . . .

- 1. Use personal networks to identify mentors who fit your needs:**
 - talk to colleagues
 - talk to your supervisor
 - consult with the Office of Faculty Affairs

UMass Profiles
Research Networking Software



- 2. Search databases for expertise:**
 - Faculty Profiles: who is at UMMS?
 - PubMed: who is publishing in the area?
 - NIH Reporter: who is funded?

Step 2

Who is publishing? — *example*



PubMed search:

Worcester [AD] and “innate immunity”



The screenshot shows the PubMed website interface. The search bar at the top contains the query "Worcester[AD] and innate immunity". Below the search bar, the results are displayed as a list of articles. The first article is titled "Innate immunity in Alzheimer's disease." and is listed as item 1. The second article is titled "A small-molecule inhibitor of the NLRP3 inflammasome for the treatment of inflammatory diseases." and is listed as item 2. The third article is titled "Recognition of Aspergillus fumigatus Hyphae by Human Plasmacytoid Dendritic Cells Is Mediated by Dectin-2 and Results in Formation of Extracellular Traps." and is listed as item 3. A red arrow points from the search bar to the first article, and another red arrow points from the first article to a text box that says "193 papers on innate immunity".

NCBI Resources How To Sign in to NCBI

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed : Worcester[AD] and "innate immunity" Search

RSS Save search Advanced Help

Article types
Review
Customize ...

Text availability
Abstract
Free full text
Full text

PubMed
Commons
Trending articles

Publication dates
5 years
10 years
Custom range...

Species
Humans
Other Animals

Clear all
Show additional filters

Summary 20 per page Sorted by Recently Added

Send to: Filters: Manage Filters

Results: 1 to 20 of 193

1. [Innate immunity in Alzheimer's disease.](#)
Heneka MT, Golenbock DT, Latz E.
Nat Immunol. 2015 Feb 17;16(3):229-236. doi: 10.1038/ni.3085.
PMID: 25689443 [PubMed - as supplied by publisher]
[Related citations](#)

2. [A small-molecule inhibitor of the NLRP3 inflammasome for the treatment of inflammatory diseases.](#)
Coll RC, Robertson AA, Chae JJ, Higgins SC, Muñoz-Planillo R, Inerra MC, Vetter I, Dungan LS, Monks BG, Stutz A, Croker DE, Butler MS, Haneklaus M, Sutton CE, Núñez G, Latz E, Kastner DL, Mills KH, Masters SL, Schroder K, Cooper MA, O'Neill LA.
Nat Med. 2015 Feb 16. doi: 10.1038/nm.3806. [Epub ahead of print]
PMID: 25686105 [PubMed - as supplied by publisher]
[Related citations](#)

3. [Recognition of Aspergillus fumigatus Hyphae by Human Plasmacytoid Dendritic Cells Is Mediated by Dectin-2 and Results in Formation of Extracellular Traps.](#)
Loures FV, Röhm M, Lee CK, Santos E, Wang JP, Specht CA, Calich VL, Urban CF, Levitz SM.
PLoS Pathog. 2015 Feb 6;11(2):e1004643. doi: 10.1371/journal.ppat.1004643. eCollection 2015 Feb.
PMID: 25659141 [PubMed - in process] **Free Article**
[Related citations](#)

Display Settings option -
ance

Text articles in PubMed

ase-dependent TLR2 ectodomain
shedding is involved in soluble [PLoS One. 2014]
Optimization of transcription factor binding map
accuracy utilizing knoel [Nucleic Acids Res. 2014]
The adaptor ASC has extracellular and 'prionoid'
activities that propagate infla [Nat Immunol. 2014]
See all (95)...

Find related data

Database: Select

Find Items

Step 2 Who is funded in the area?

Search the NIH reporter:

The screenshot shows the NIH RePORTER search interface. The header includes the NIH logo, the text "Research Portfolio Online Reporting Tools (RePORT)", and a search bar. Below the header is a navigation bar with tabs: QUICK LINKS, RESEARCH, ORGANIZATIONS, WORKFORCE, FUNDING, REPORTS, and LINKS & DATA. The main content area is titled "Home > RePORTER > Query Form". It features a "SUBMIT QUERY" button and a "CHECK OUT FEDERAL RePORTER" link. The "QUERY" tab is selected, showing a "RESEARCHER AND" section with fields for Principal Investigator (PI) / Project Leader, Organization, Department, and Organization Type. The "Fiscal Year (FY)" dropdown is set to "Active Projects". The "TEXT SEARCH" section includes a "Logic" dropdown and a search box. The "Search in" section has checkboxes for Projects, Publications, and News. The "Limit Project search to" section has checkboxes for Project Title, Project Terms, and Project Abstracts. The "Limit Publication search to" section has dropdowns for Start Year (2013) and End Year (2014). Annotations with red boxes and arrows point to the "organization" field, the "project year" dropdown, and the "keywords" search box.

NIH Research Portfolio Online Reporting Tools (RePORT)

Search

HOME | ABOUT RePORT | FAQs | GLOSSARY | CONTACT US

QUICK LINKS RESEARCH ORGANIZATIONS WORKFORCE FUNDING REPORTS LINKS & DATA

Home > RePORTER > Query Form

NIH RePORTER Version: 6.7.0

CHECK OUT FEDERAL RePORTER

ABOUT RePORTER DATA Manual Added Projects

QUERY BROWSE NIH MATCHMAKER BETA

SUBMIT QUERY

RESEARCHER AND

Principal Investigator (PI) / Project Leader: (Last Name, First Name) Use '%' for wildcard PI names Enter several PI/Project Leader names OR PI Profile IDs

Organization: LOOKUP Please enter at least 3 characters to use Lookup. Contains Begins with Exact

Department: SELECT

Organization Type: SELECT

Fiscal Year (FY): Current FY is 2014 Active Projects SELECT

City: State: SELECT Country: SELECT Congressional District: SELECT DUNS Number:

TEXT SEARCH

Logic: Search in: Limit Project search to: Limit Publication search to: Start Year: 2013 End Year: 2014

project year

organization

keywords

<http://projectreporter.nih.gov>

Step 2 Once you have a list of potential mentors:

Learn more about them in order
to make a final choice:

- what have they published?
- how are they funded?

Are they good mentors?

- whom have they trained?
- do you know someone who knows them?
- seek advice from current mentors

Step 3 **Contact your mentor . . .**

You can send an email but a personal contact can be more powerful; in either case . . .

Introduce yourself:

- include brief personal information & attach CV

Be specific about your need for guidance:

- define how the potential mentor can help you

Describe why you are asking this person for help

- what is their relevant expertise?

Step 3

Contact your mentor — *an example*



Ayesha has identified an investigator in the Department of Medicine who is an expert in innate immunity.

She writes an email . . .

Dear Dr. Smith:

I'm an Assistant Professor of Surgery. I was accepted into the Clinical Research Scholar program this year: my project focuses on the role of innate immunity in vascular changes during diabetes.

Your research on the effects of inflammation on muscle during diabetes is very relevant to the project I am planning.

I wonder if we could meet to discuss whether you would be willing to help me with my research project?

Step 4

Establish the mentoring relationship . . .

Effective Mentees and Mentors:

Define the goals and objectives for the mentoring relationship

Agree on the steps and timeline to reach the goal

Discuss mutual expectations and boundaries, ethics and vision

Negotiate a schedule for meeting together

Mentoring Agreement	
Mentor	
Mentee	
Purpose and desired outcomes of the mentoring relationship:	
Timeline and proposed length of relationship:	
Activities to be conducted:	
Expectations:	
Communication methods and frequency:	
Actions to be taken if problems arise:	
I agree to enter this mentoring relationship as defined above and will maintain confidentiality	
Mentee:	Mentor:
Date:	Date:

A mentoring agreement is a useful tool to define goals and expectations

Step 5

Nurture the mentoring relationship

Behaviors of an effective mentee

Comes prepared to meetings

Respects the mentor's time

Follows through and accepts responsibility

Demonstrates insight and self-knowledge

Comes with solutions, not just problems

Seeks clarification in communications

Gives, requests and accepts feedback

Step 5 What should mentors expect of a mentee?

Professionalism:

- responds to messages
- keeps to scheduled meetings or gives notice in good time
- is honest about needs



Listens to advice (but doesn't necessarily take it!)

Provides the mentor with **feedback about their needs**

***Don't forget that mentors can also
learn from their mentees!***

Myth:
Anyone can mentor



The reality . . .

**Mentoring requires defined skills
and can be taught**

What are the essential qualities (competencies) of an effective mentor?

SPECIAL REPORTS

Deriving Competencies for Mentors of Clinical and Translational Scholars

Zainab Abedin, M.P.H.¹, Ewelina Biskup, M.D.², Karin Silet, M.A.³, Jane M. Garbutt, M.D.⁴, Kurt Kroenke, M.D.⁵, Mitchell D. Feldman, M.D.⁶, Richard McGee, Jr, Ph.D.⁷, Michael Fleming, M.D.⁸, and Harold Alan Pincus, M.D.⁹

Used a range of methods to define competencies

Derived 19 competencies for mentors of clinical and translational investigators

Abedin et al. Clin. Trans. Sci. **5**: 273–280 (2012)

The 19 mentoring competencies are organized into six thematic areas

- 1. Communication & managing the relationship**
- 2. Psychosocial support**
- 3. Career & professional development**
- 4. Professional enculturation
& scientific integrity**
- 5. Research skills development**
- 6. Clinical and translational
investigator development**

Areas 1–4 are common to most mentoring relationships

These competencies were used to develop a Mentoring Competency Assessment

Validated instrument for both mentors & mentees

26 questions over six domains:

- Effective communication
- Aligning expectations
- Assessing understanding
- Fostering independence
- Addressing diversity
- Promoting professional development

Mentoring Competency Assessment (MCA): for self-reflection by mentors

Please rate how skilled you feel you are in each of the following areas:

Think about your skill generally, with all your mentees.
Please only choose 'not applicable' (NA) when a skill cannot be applied to any of your mentees.

	Not at all skilled		Moderately skilled			Extremely skilled		NA
	1	2	3	4	5	6	7	
Active listening	0	0	0	0	0	0	0	0
Providing constructive feedback	0	0	0	0	0	0	0	0
Establishing a relationship based on trust	0	0	0	0	0	0	0	0
Identifying and accommodating different communication styles	0	0	0	0	0	0	0	0
Employing strategies to improve communication with mentees	0	0	0	0	0	0	0	0
Coordinating effectively with other mentors with whom you work	0	0	0	0	0	0	0	0
Working with mentees to set clear expectations of the mentoring relationship	0	0	0	0	0	0	0	0
Aligning your expectations with your mentees	0	0	0	0	0	0	0	0
Considering how personal and professional differences may impact expectations	0	0	0	0	0	0	0	0
Working with mentees to set goals	0	0	0	0	0	0	0	0
Helping mentees develop strategies to meet goals	0	0	0	0	0	0	0	0
Accurately estimating mentees' level of subject knowledge	0	0	0	0	0	0	0	0
Accurately estimating mentees' ability to perform	0	0	0	0	0	0	0	0
Employing strategies to enhance mentees' understanding	0	0	0	0	0	0	0	0
Motivating your mentees	0	0	0	0	0	0	0	0
Building mentees' confidence	0	0	0	0	0	0	0	0
Stimulating your mentees' creativity	0	0	0	0	0	0	0	0
Acknowledging your mentees' professional contributions	0	0	0	0	0	0	0	0
Negotiating a path to professional independence with your mentees	0	0	0	0	0	0	0	0
Taking into account the biases and prejudices you bring to your mentor/mentee relationships	0	0	0	0	0	0	0	0
Working effectively with mentees whose personal background is different from your own (age, race, gender, class, region, culture, religion, family composition etc.)	0	0	0	0	0	0	0	0
Helping mentees network effectively	0	0	0	0	0	0	0	0
Helping mentees set career goals	0	0	0	0	0	0	0	0
Helping mentees balance work with their personal life	0	0	0	0	0	0	0	0
Understanding your impact as a role model	0	0	0	0	0	0	0	0
Helping mentees acquire resources (e.g. grants, etc.)	0	0	0	0	0	0	0	0

	Very low		Average			Very high		NA
	1	2	3	4	5	6	7	
How would you rate the overall quality of your mentoring?	0	0	0	0	0	0	0	0

	Not at all		Moderately			Completely		NA
	1	2	3	4	5	6	7	
To what extent do you feel that you are currently meeting your mentees' expectations?	0	0	0	0	0	0	0	0

Modified from: The Mentoring Competency Assessment: Validation of a New Instrument to Evaluate Skills of Research Mentors, Fleming et al, Academic Medicine 88: 1002–8, (2013) [https://mentoringresources.ictr.wisc.edu/EvalTemplates]

The Mentoring Competency Assessment: Validation of a New Instrument to Evaluate Skills of Research Mentors, Fleming et al, Academic Medicine 88: 1002–8, (2013)
<https://mentoringresources.ictr.wisc.edu/EvalTemplates>

Effective curricula have been developed to teach the mentoring competences

The curriculum increased mentor's scores on the Mentoring Competency Assessment

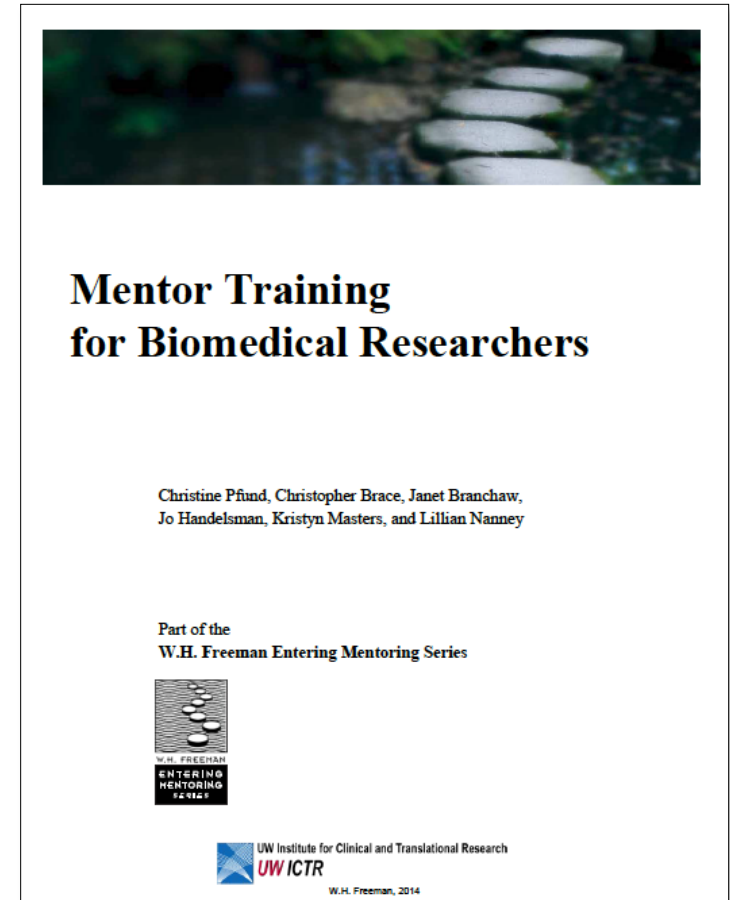
Curricula for mentors in specific areas of research:

Clinical & Translational

Biomedical Research

Clinical & Behavioral

Community Engagement



Pfund et al, Training Mentors of Clinical and Translational Research Scholars: A Randomized Controlled Trial, *Acad Med* **89**: 774–782 (2014)
<https://mentoringresources.ictr.wisc.edu/TrainingCurriculumChoices>

The Mentoring Curriculum teaches important skills for mentors

Effective communication

Aligning expectations

Assessing understanding

Fostering independence

Addressing diversity

Promoting professional development

Good communication is essential for an effective mentoring relationship



Identify respective preferences

Clarify expectations for communication,
including frequency

Develop an initial plan for communication

Recognize that this plan will likely need to
be flexible

Lack of effective communication can derail a mentoring relationship



Frequency of interactions

Types or styles of communication

Make time for face to face
discussions when either party
is not satisfied with progress

Be patient but don't wait....

Final thoughts . . .

a framework for success!

Know what is **expected** of you

Set **goals** and make a plan

Continue to **learn**

Connect with **colleagues**

Understand your **strengths** & **weaknesses**

Maintain **balance** in your life

Take time to **reflect**

Seek **help** and **guidance**

For more information on mentoring . . .

— *go to the Office of Faculty Affairs website*



University of
Massachusetts
UMASS Medical School

Office of
Faculty Affairs

Search for [GO](#)
[Search All UMMS](#)

[Career Navigation](#) | [Development](#) | [Mentoring](#) | [Equity & Diversity](#) | [Academic Affairs](#)

Mentoring at UMMS

Mentoring is essential for a successful career in academic medicine. Mentors share their expertise in the clinic or laboratory, troubleshoot a problem, advise on a decision, and open doors to new opportunities. Successful faculty have mentors throughout their careers. A mentoring relationship can be formal or informal, shared or individual, short-term or life-long.

As a mentor, passing on knowledge, skills and behaviors to others is one of the true joys of academic life. You can be coach, counselor or sponsor, or combinations of these. But it is always a deeply rewarding experience that should be expected of all faculty in academic medicine.

The goal of the OFA is to enhance the culture of mentoring at UMMS—to ensure that all faculty have access to mentors, that mentors have the support to be effective, and that both have the resources to establish and sustain a mentoring relationship.

- Looking for a mentor at UMMS? — go to [Find a Mentor](#)
- Looking for a mentoring program at UMMS? — go to [Mentoring Programs](#)
- Advice on being a mentee? — go to [Guidance for Mentees](#)
- Advice on being an effective mentor? — go to [Guidance for Mentors](#)
- Information about mentoring? — go to [Mentoring Resources](#)



Mentoring Quicklinks

- [Find a Mentor](#)
- [Find a Mentor Workshops](#)
- [Guidance for Mentees](#)
- [Guidance for Mentors](#)
- [UMMS Mentoring Programs](#)
- [Peers for Promotion](#)
- [Mentoring Advisory Board](#)
- [Mentoring Survey](#)
- [Mentoring Resources](#)
- [Mentoring Consultations](#)

Mentoring Guidance

Advice, tips and resources for

- [Mentees](#)
- [Mentors](#)

Find a Mentor

The UMMS Mentoring Network provides guidance for faculty who are seeking a mentor.

[Start here](#)

Find a Mentor Workshop

Attend a workshop to help you identify a mentor.

[More information](#)

Mentoring Consultation

Meet with an OFA faculty member to help you identify a mentor

[More information](#)

<http://www.umassmed.edu/ofa/mentoring>