CITI PROGRAM

Alexander Brown
ID 4843136

Mentoring (RCR-Basic)

Utah State University - Physical Science Responsible Conduct of Research Course

Switch View

Mentoring (RCR-Basic)

Content Authors

- **Daniel Vasgird, PhD**

  West Virginia University (retired)

- **Trisha Phillips, PhD**

  West Virginia University

Introduction

Please review at least one of the videos below before you begin reading the module. Each video is approximately three minutes long.

- Life Sciences – Mentoring
- Social/Behavioral/Education Sciences – Mentoring

- ## Social/Behavioral/Education Sciences – Mentoring

    This module will describe strategies that may help prevent some of the challenges illustrated within the videos.

Mentoring is an important activity for trainees, mentors, and the progress of research and scholarship. However, not all mentoring is done well nor is its value always recognized. This module will discuss why mentoring is an essential part of research activities, describe the mentoring process, and identify practices that can improve a mentoring relationship.

Learning Objectives

By the end of this module, you should be able to:

- Describe and distinguish the roles of an advisor, supervisor, and mentor.
- Discuss the ethical and social responsibilities of mentors and trainees.
- Identify problems that can emerge in a mentoring relationship.
- Describe strategies that can be used to avoid or manage conflicts between mentors and trainees.

The Importance of Mentoring
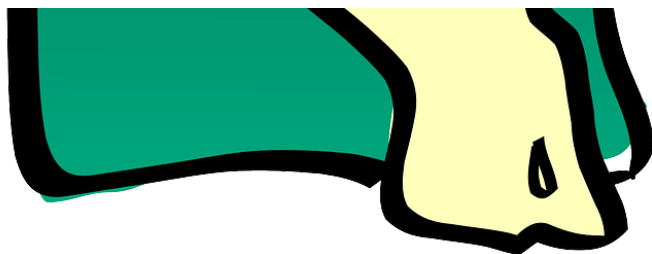
A mentor is someone who shares knowledge and serves as an experienced and trusted advisor. While it may at one point have been synonymous with an academic advisor, the role of a mentor has expanded and often includes supervisor, collaborator, professional development coach, advocate, and friend (Shamoo and Resnik 2009; Macrina 2005; Comstock 2013). Perhaps most importantly, a mentor is someone who takes a sincere interest in the future growth and development of a trainee.

Departments, institutions, and national and international organizations have been developing programs to encourage and support mentoring relationships. Two moral imperatives explain why mentoring is such an important topic. First, mentoring involves relationships between people, and deviation from appropriate practices can harm the people who participate in these relationships. Second, mentoring plays an important role in the future of research, and poor or inadequate mentoring can harm the future of a field.

The relatively informal dimensions of the mentoring relationship make it an ideal way to share certain knowledge and skills that are not easily learned from books or in the classroom. There are at least three ways in which mentoring can prepare the next generation of researchers:

| Character traits, interpersonal skills, and social responsibility | Ethical competence | Professional success |

Character traits, interpersonal skills, and social responsibility

Ethical competence

Professional success

The Benefits of Mentoring

For Trainees

The benefits of mentoring are demonstrable: individuals who experienced positive mentoring relationships tend to be better prepared socially, more productive professionally, and happier in their jobs (Gardiner et al. 2007). Trainees can also gain an understanding of the organizational culture, access networking, and receive assistance in defining and achieving career goals. As Cho and her colleagues report (2011), "Faculty and trainees who identify mentors are more likely to be promoted, are more productive, and publish more often."

In addition, good mentoring can lead to a clearer understanding of a researcher's ethical and social responsibilities. Junior researchers should be made aware of their responsibilities to the world at large (Carlson and Frankel 2011).

For Mentors

The benefits of mentoring to the mentors are also demonstrable: mentors typically find satisfaction in sharing their knowledge and experience, and renew their enthusiasm for the profession. It can help the mentor develop and enhance professional networks, extend their professional contributions, and contribute to the advancement of the field.

Mentors can gain the opportunity to learn about new research areas, build a strong research program, gain new friendships, and affect the future by leaving a part of their expertise and values in every trainee (Coates 2012; Anderson et al. 2001; NAS, NAE, and IOM 2009). For example, values such as "the disinterested pursuit of truth," expressed by Robert Merton (1979), could be imparted to the next generation. Furthermore, mentors may benefit from joint projects leading to shared grants and authorship. The best mentors typically attract the brightest students and postdocs, which can enhance both the mentor's reputation and job satisfaction.

Promoting Diversity

Mentoring can also be a useful tool for promoting gender, racial, and ethnic diversity in research communities, and resolving cultural differences for international trainees (Landefeld 2009; Noy and Ray 2012; Patton 2009; Portillo 2007; Alexander and Williams 2004). Given that mentoring can have a profound effect on productivity, success, and job satisfaction, a positive mentoring experience can help minorities who enter the field to succeed in their careers. Many organizations and governmental agencies look to mentoring to broaden the representation of minorities and women in research professions, and many programs have been developed to correct the imbalance in mentoring opportunities (Gardiner 2005; Sinkford et al. 2009).

The **Americans with Disabilities Act** (ADA) became law in 1990. Its stated purpose is to help ensure that people with disabilities have the same rights and opportunities as other Americans. Mentoring should be implemented as a process for overcoming prejudice and/or discrimination that can arise when interacting with an individual with a

known disability. The **ADA National Network** provides training resources for those seeking to address this issue.

A responsible workplace should create an environment where gender and sexual diversity is respected. Unfortunately, harassment is a serious and ongoing problem in

the workplace (National Academies 2018). A measure that can help prevent harassment is to establish proactive and informed mentoring; this can help new researchers and others learn what is expected in a professional environment (Johnson 2002) and how to address harassment if and when it occurs. With proper training, mentors can more effectively encourage collegiality, and mentees can feel that they are being treated respectfully (Feldman et al. 2010).

The Roles of a Mentor

Sink-or-Swim Mentoring

Review the main roles that a mentor can take on.

Many professionals may not have the time, knowledge, experience, or interest to fill all of the possible roles of a mentor but can still engage in a rewarding and productive mentoring relationship. The "truly complete mentor" needed by every trainee may be a composite of more than one individual. By having more than one mentor, the trainee can increase the scope of knowledge and expertise being handed down. Similarly, mentors may change or transition as the trainee's career path evolves. Whatever role a person agrees to perform as a mentor needs to be performed well.

The Responsibilities of a Mentor

The primary responsibilities of a mentor include being an honest and fair person, clarifying expectations, and avoiding conflict between roles.

Being an Honest and Fair Person

Being an honest and fair person

Mentors should be available and committed, be knowledgeable about appropriate practices and professional ethics, engage in continuing education about research and mentoring strategies, and teach by both words and example. At the same time, a mentor has to be honest with the trainee about the limits of the mentor's expertise (Perlmutter 2008).

Clarifying Expectations

Clarifying expectations

Mentors should clarify expectations in terms of the roles they agree to perform and what those roles entail. This includes clearly describing their availability, timelines, deadlines, authorship expectations, ownership of data, and so forth.

Avoiding Conflict Between Roles

Avoiding conflict between roles

Good mentors know how to keep their potentially conflicting roles in balance.

For example, mentors sometimes expect the trainee to spend too much time and energy on their research agenda at the expense of the trainee's own research and academic studies. The power imbalance in the mentoring relationship and other vulnerabilities related to being a trainee make this type of exploitation possible, but wrong nonetheless. Mentors need to balance their personal and professional roles and goals with those associated with mentoring, and avoid abusing their power.

Identifying a Good Mentor

A mentor might be a faculty member, a project leader, a more senior student, a wise friend, or anyone who can provide trustworthy advice. A person needs to possess at least four qualities in order to be an effective mentor (Cho et al. 2011; Sambunjak et al. 2009):

Experience with the research and challenges that trainees may confront

The ability and willingness to communicate that experience

An interest in helping another person develop into a successful professional

Admirable character traits

Other important qualities to look for in a mentor include:

- A willingness to share time (Cho et al. 2011)

- Professional respect from others, including current and former trainees (Sambunjak et al. 2009)

The Roles and Responsibilities of a Trainee

Trainees have their share of responsibilities in the mentoring relationship. These include:

Identifying goals

Actively participating in the process of finding a mentor

Being a proactive trainee

Identifying Goals

Given that mentors can play different roles, it is important for trainees to identify what they want to get from their mentoring experience. They should be clear about expectations regarding a work plan, meetings, and professional development (UM 2014; Carey and Weissman 2010).

Actively Participating in the Process of Finding a Mentor

Trainees need to play an active role in finding prospective mentors, keeping in mind that a mentor should be a good match in terms of both personality and experience (Bell and Treleaven 2011; Armstrong et al. 2002). A trainee should also seek mentors who have succeeded on a career path the trainee hopes to follow. For example, it would be invaluable for some trainees to seek the help of female researchers who have met the

challenges that they might face (Ensher and Murphy 1997; Patton 2009). For others, the topical or research experience of a mentor may be more crucial. Undoubtedly, however, personal qualities are just as important as any other criteria in identifying a mentor and should not be overlooked (NIH n.d.). Assessing the interpersonal skills of prospective mentors is much more difficult than gauging their professional success.

Being a Proactive Trainee

Trainees should take an active role in identifying and communicating needs, expectations, and opportunities as professionals-in-training (Sambunjak et al. 2009). Although a mentor can provide a unique and invaluable perspective, the mentor's advice should not be accepted without reflection (Williams et al. 2004).

Common Conflicts and Problem Solving Strategies

The International Trainee

Despite the significance of mentoring, it is not always done well (Johnsrud 1990). The phrase **toxic mentoring** is often used to describe this situation. **Review specific concerns that can arise in the mentoring relationship**.

Adequate training for mentors and periodic evaluation can help to prevent these problems. Those in higher authority can stress their intolerance for abuse of power and their availability to concerned parties. Also, trainees need to know whom to contact within or outside the department should serious problems arise. For example, many

organizations have an **ombuds office** that keeps information confidential and may help to resolve disputes.

Organizational Support for Mentoring

Organizations can facilitate the creation of productive mentoring relationships by implementing measures such as:

- Highlighting the benefits of mentoring.
- Providing rewards to good mentors. Rewards could range from credit for teaching or service on an annual evaluation to formal awards (Shamoo and Resnik 2009).
- **Providing the training and resources necessary to do it well**.

- Identifying poor mentors and taking steps to improve their behavior (Shamoo and Resnik 2009).

- Establishing procedures for reporting grievances or misconduct, and protecting those who report problems (Shamoo and Resnik 2009).

- Promoting a diverse, psychologically safe, and nondiscriminatory work environment (Shamoo and Resnik 2009).

Facilitating mentoring relationships is one way that organizations can develop a sense of community and mutual respect.

Summary

Mentoring is a complex phenomenon that can affect the personal and professional lives of the mentor and trainee, the culture of an organization, and the future of research. Successful mentoring requires awareness of appropriate practices, social responsibilities, and a sincere commitment from mentors, trainees, and their organizations. The mentoring relationship can be rewarding for all parties involved and can have a notable impact on productivity and job satisfaction.

References

- Alexander, Madeline, and Wendy Reed Williams. 2004. "**A Guidebook for Teaching Selected Responsible Conduct of Research Topics to a Culturally Diverse Trainee Group**." Accessed June 13, 2019.
- Anderson, Melissa S., Aaron S. Horn, Kelley R. Risbey, Emily A. Ronning, Raymond De Vries, and Brian C. Martinson. 2007. "What Do Mentoring and Training in The Responsible Conduct of Research Have To Do With Scientists' Misbehavior? Findings from a National Survey of NIH-Funded Scientists." *Academic Medicine* 82(9):853-60.

- Anderson, Melissa S., Elo Charity Oju, and Tina M. R. Falkner. 2001. "Help from Faculty: Findings from the Acadia Institute Graduate Education Study." *Science and Engineering Ethics* 7(4):487-504.

- Armstrong, Steve, Christopher W. Allinson, and John Hayes. 2002. "Formal Mentoring Systems: An Examination of the Effects of Mentor/Protégé Cognitive Styles on the Mentoring Process." *Journal of Management Studies* 39(8):1111-37.

- Bell, Amani, and Lesley Treleaven. 2011. "Looking for Professor Right: Mentee Selection of Mentors in a Formal Mentoring Program." *Higher Education* 61(5):545-61.

- Benatar, Solomon R., and Peter A. Singer. 2010. "Responsibilities in International Research: A New Look Revisited." *Journal of Medical Ethics* 36(4):194-7.

- Berk, Ronald. 2010. "Where's the Chemistry in Mentor-Mentee Academic Relationships? Try Speed Mentoring." *International Journal of Mentoring and Coaching* 8(1):85-138.

- Blixen, Carol E., Klara K. Papp, Alan L. Hull, Richard A. Rudick, and Katrina A. Bramstedt. 2007. "Developing a mentorship program for clinical researchers." *Journal of Continuing Education in the Health Professions* 27(2):86-93.

- Carey, Elise C., and David E. Weissman. 2010. "Understanding and Finding Mentorship: A Review for Junior Faculty." *Journal of Palliative Medicine* 13(11):1373-9.

- Carlson, Rebecca, and Mark S. Frankel. 2011. "Reshaping Responsible Conduct of Research Education." *Professional Ethics Report* 24(1):1-3.

- Cash, Richard, Daniel Wikler, Abha Saxena, and Alexander Capron, eds. 2009. "**Casebook on Ethical Issues in International Health Research**." Accessed June 13, 2019.

- Cho, Christine S., Radhika A. Ramanan, and Mitchell D. Feldman. 2011. "Defining the Ideal Qualities of Mentorship: A Qualitative Analysis of the Characteristics of Outstanding Mentors." *The American Journal of Medicine* 124(5):453-8.

- Coates, Wendy C. 2012. "Being a Mentor: What's In It For Me?" *Academic Emergency Medicine* 19(1):92-7.

- Comstock, Gary. 2013. *Research Ethics: A Philosophical Guide to the Responsible Conduct of Research.* New York: Cambridge University Press.

- Council of Canadian Academies (CCA): Expert Panel on Research Integrity. 2010. "[Honesty, Accountability and Trust: Fostering Research Integrity in Canada](#)." Accessed June 13, 2019.

- Defino, Theresa, ed. 2012. "To Tamp Down Research Misconduct, Boost Mentorship, Protect Whistleblowers." *Report on Research Compliance* 9(8):1-3.

- Detsky, Allan S., and Mark Otto Baerlocher. 2007. "Academic Mentoring-How to Give It And How to Get It." *Journal of the American Medical Association* 297(19):134-6.

- Ehrich, Lisa C., Brian Hansford, and Lee Tennent. 2004. "Formal Mentoring Programs in Education and Other Professions: A Review of the Literature." *Educational Administration Quarterly* 40(4):518-40.

- Eisen, Arri, and Roberta M. Berry. 2002. "The Absent Professor: Why We Don't Teach Research Ethics and What To Do About It." *American Journal of Bioethics* 2(4):38-49.

- Ensher, Ellen A., and Susan E. Murphy. 1997. "Effects of Race, Gender, Perceived Similarity, and Contact On Mentor Relationships." *Journal of Vocational Behavior* 50(3):460-81.

- Ewing, Robyn, Mark Freeman, Simon Barrie, Amani Bell, Donna O'Connor, Fran Waugh, and Chris Sykes. 2008. "Building a Community in Academic Settings: The Importance of Flexibility in a Structured Mentoring Program." *Mentoring and Tutoring: Partnership in Learning* 16(3):294-310.

- Faden, Ruth R., Michael J. Klag, Nancy E. Kass, and Sharon S. Krag. 2002. "On the Importance of Research Ethics and Mentoring." *American Journal of Bioethics* 2(4):50-1.

- Feldman, Mitchell D., Jody E. Steinauer, Mandana Khalili, Laurence Huang, James S. Kahn, Kathryn A. Lee, Jennifer Creasman, and Jeanette S. Brown. 2012. "A Mentor Development Program for Clinical Translational Science Faculty Leads to Sustained, Improved Confidence in Mentoring Skills." *CTS: Clinical & Translational Science* 5(4):362-7

- Feldman, Mitchell D., Patricia A. Arean, Sally J. Marshall, Mark Lovett, and Patricia O'Sullivan. 2010. "Does Mentoring Matter: Results from a Survey of Faculty Mentees at a Large Health Sciences University." *Medical Education Online* 15(1):5063.

- Fischer, Beth A., and Michael J. Zigmond. 2001. "Promoting Responsible Conduct in Research through "Survival Skills" Workshops: Some Mentoring Is Best Done in a

Research through "Survival Skills" Workshops: Some Mentoring Is Best Done in a Crowd." *Science and Engineering Ethics* 7(4):563-87.

- Fisher, Celia B., Adam L. Fried, and Lindsay G. Feldman. 2009a. "Graduate Socialization in the Responsible Conduct of Research: A National Survey on the Research Ethics Training Experiences of Psychology Doctoral Students." *Ethics & Behavior* 19(6):496-518.

- Fisher, Celia B., Adam L. Fried, Sabrina J. Goodman, and Kaori Kubo Germano. 2009b. "Measures of Mentoring, Department Climate, and Graduate Student Preparedness in the Responsible Conduct of Psychological Research." *Ethics & Behavior* 19(3):227-52.

- Gardiner, Maria. 2005. "**Making a Difference: Flinders University Mentoring Scheme for Early Career Women Researchers: Pilot Program Report**." Accessed June 13, 2019.

- Gardiner, Maria, Marika Tiggemann, Hugh Kearns, and Kelly Marshall. 2007. "Show Me the Money! An Empirical Analysis of Mentoring Outcomes for Women in Academia." *Higher Education Research & Development* 26(4):425-42.

- Golde, Chris M., and Timothy M. Dore. 2001. "At Cross Purposes: What the Experiences of Doctoral Students Reveal About Doctoral Education." A report prepared for The Pew Charitable Trusts, Philadelphia, PA.

- Hewlett, Sylvia Ann. 2013. *Forget a Mentor, Find a Sponsor: The New Way to Fast-Track Your Career.* Harvard Business Review Press.

- Horowitz, Jessica, and Kelly B. Christopher. 2013. "The Research Mentoring Program: Serving the Needs of Graduate and Undergraduate Researchers." *Innovative Higher Education* 38(2):105-16

- Huskins, W. Charles, Karin Silet, Anne Marie Weber-Main, Melissa D. Begg, Vance G. Fowler, John Hamilton, and Michael Fleming. 2011. "Identifying and Aligning Expectations in a Mentoring Relationship." *Clinical and Translational Science* 4(6):439-47.

- Johnson, W. Brad. 2002. "The Intentional Mentor: Strategies and Guidelines for the Practice of Mentoring." *Professional Psychology: Research and Practice* 33(1):88-96.

- Johnsrud, Linda K. 1990. "Mentor Relationships: Those That Help and Those That Hinder." *New Directions for Higher Education* 72:57-66.

Hinder." *New Directions for Higher Education* 72:57-66.

- Kalichman, Michael. 2001. "Responsible Conduct of Research: An Introductory Guide." A guide prepared for the Office of Research Integrity at the University of California, San Diego, CA.

- Kiersma, Mary E., Nicholas Hagemeier, Adam M. H. Chen, Brittany Melton, Marwa Noureldin, and Kimberly S. Plake. 2012. "A Graduate Student Mentoring Program to Develop Interest in Research." *American Journal of Pharmaceutical Education* 76(6):104.

- Kornfeld, Donald S. 2012. "Perspective: Research Misconduct: The Search for a Remedy." *Academic Medicine* 87(7):877-82.

- Landefeld, Thomas. 2009. *Mentoring and Diversity*. New York: Springer.

- Long, Janette. 1997. "The Dark Side of Mentoring." *Australian Educational Researcher* 24(2):115-33.

- Macrina, Francis L. 2005. *Scientific Integrity: Text and Cases in Responsible Conduct of Research, Third Edition.* Washington, DC: ASM Press.

- Mayer, Tony, and Nicholas Steneck, eds. 2012. *World Promoting Research Integrity in a Global Environment.* Singapore: Scientific Printers.

- Merton, Robert K. 1979. *The Sociology of Science: Theoretical and Empirical Investigations.* Chicago: University of Chicago Press.

- National Academies of Sciences, Engineering, and Medicine. 2018. *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*. Washington, DC: The National Academies Press.

- National Academy of Science (NAS). 1997. *Adviser, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering.* Washington, DC: National Academies Press.

- National Academy of Sciences, National Academy of Engineering, and Institute of Medicine (NAS, NAE, and IOM). 2009. *On Being a Scientist: A Guide to Responsible Conduct in Research, Third Edition*. Washington, DC: National Academies Press.

- National Institutes of Health (NIH). n.d. "[Thoughts on Choosing a Research Mentor]." Accessed June 13, 2019.

- Noy, Shiri, and Rashawn Ray. 2012. "Graduate Students' Perceptions of Their Advisors: Is There a Systematic Disadvantage in Mentorship?" *The Journal of Higher Education* 83(6):876-914.

Education 83(6):876-914.

- Organisation for Economic Co-Operation and Development Global Science Forum (OECODGSF) (Tokyo, Japan). 2007. "**Best Practices for Ensuring Scientific Integrity and Preventing Misconduct**." Accessed June 13, 2019.

- Patton, Lori. 2009. "My Sister's Keeper: A Qualitative Examination of Mentoring Experiences Among African American Women in Graduate and Professional Schools." *The Journal of Higher Education* 80(5):510-37.

- Perlmutter, David. 2008. "**Do You Have a Bad Mentor**?" *Chronicle of Higher Education*, May 19. Accessed June 13, 2019.

- Portillo, Shannon. 2007. "Mentoring Minority and Female Students: Recommendations for Improving Mentoring in Public Administration and Public Affairs Programs." *Journal of Public Affairs Education* 13(1):103-13.

- Ripley, Elizabeth, Monika Markowitz, Ann Nichols-Casebolt, Larry Williams, and Francis Macrina. 2012. "Guiding the Next Generation of NIH Investigators in Responsible Conduct of Research: The Role of the Mentor." *Accountability in Research* 19(4):209-19.

- Sambunjak, Dario, Sharon E. Straus, and Ana Marušić. 2006. "Mentoring in Academic Medicine: A Systematic Review." *Journal of the American Medical Association* 296(9):1103-15

- Sambunjak, Dario, Sharon E. Straus, and Ana Marušić. 2009. "A Systematic Review of Qualitative Research on the Meaning and Characteristics of Mentoring in Academic Medicine." *Journal of General Internal Medicine* 25(1):72-8.

- Shamoo, Adil E., and David Resnik. 2009. *Responsible Conduct of research, Second Edition*. New York: Oxford University Press.

- Sinkford, Jeanne C., Joseph F. West, Richard G. Weaver, and Richard W. Valachovic. 2009. "Modeling Mentoring: Early Lessons from the WK Kellogg/ADEA Minority Dental Faculty Development Program." *Journal of Dental Education* 73(6):753-63.

- Steneck, Nicholas. 2004. "Introduction to the Responsible Conduct of Research." Washington, DC: Department of Health and Human Services, Office of Research Integrity (ORI)

Integrity (ORI).

- Titus, Sandra L., and Janice M. Ballou. 2014. "Ensuring PhD Development of Responsible Conduct of Research Behaviors: Who's Responsible?" *Science and Engineering Ethics* 20(1):221-35.

- University of Michigan (UM). 2015. "**How to Get the Mentoring You Want: A Guide For Graduate Students**." Published by the Rackham Graduate School at the University of Michigan. Accessed June 13, 2019.

- Weil, Vivian, and Robert Arzbaecher. 1997. "Relationships in the Laboratories and Research Communities." In *Research Ethics: A Reader*, edited by Deni Elliott and Judy E. Stern, 69-90. Hanover, NH: University Press of New England.

- Williams, Laurel L., John B. Levine, Seema Malhotra, and Paul Holtzheimer. 2004. "The Good-Enough Mentoring Relationship." *Academic Psychiatry* 28:111-5.

- World Conferences on Research Integrity (WCRIF). 2018. "**Singapore Statement on Research Integrity**." Accessed June 13, 2019.

- Zellers, Darlene F., Valerie M. Howard, and Maureen A. Barcic. 2008. "Faculty Mentoring Programs: Re-envisioning Rather than Reinventing the Wheel." *Review of Educational Research* 78(3):552-88.

- Zimmerman, Susan V, and Karen Wallace. 2012. "A Canadian Approach to Responsible Conduct of Research." *Professional Ethics Report* 25(3):1-4.

Additional Resources

- Association of American Medical Colleges (AAMC). 2008. "**Compact Between Biomedical Graduate Students And Their Research Advisors**." Accessed June 13, 2019.

- Joseph Stokes Jr. Research Institute (JSRI). 2006. "**Mentoring International Postdocs: Working Together to Advance Science and Careers**." Accessed June 13, 2019.

- MENTOR. n.d. "**National Mentoring Month**." Accessed June 13, 2019.

- MentorNet. n.d. "**Home**." Accessed June 13, 2019.

- Million Women Mentors (MWM). n.d. "**Home**." Accessed June 13, 2019.

- National Science Foundation (NSF). n.d. "**Excellence Awards in Science and**

- National Science Foundation (NSF). n.d. **Excellence Awards in Science and Engineering Program: Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring (EASE: PAESMEM)**." Accessed June 13, 2019."

Original Release: July 2014

Last Updated: April 2019

This module has a quiz.

Return to Gradebook   Take the Quiz

SUPPORT

888.529.5929

8:30 a.m. – 7:30 p.m. ET

Monday – Friday

Contact Us

LEGAL

Accessibility

Copyright

Privacy and Cookie Policy

Statement of Security Practices

Terms of Service