January 19, 2024

To Whom It May Concern:

In accord with the America COMPETES Act and the National Science Foundation (NSF)'s guidance on responsible and ethical conduct of research (RECR), research proposals which seek support for students, post-doctoral researchers, faculty, staff, and other senior personnel to conduct research, require the Authorized Organizational Representative to certify that the institution has a plan to provide responsible and ethical conduct of research training.

The enclosed implementation plan was updated on July 31, 2023 to fulfill new RECR training requirements by the NSF. Among other modifications, this expanded the RECR training requirements from undergraduate and graduate students as well as postdoctoral researchers to include faculty, staff and other senior personnel. The implementation plan is being revised to clarify that this change applies to newly funded projects (exclusive of supplements, amendments, etc.) as of July 31, 2023.

I certify that the enclosed Central Michigan University Responsible and Ethical Conduct of Research Implementation Plan is in place to meet the training requirement for the National Science Foundation and other federal sponsors, as necessary.

Sincerely,

DocuSigned by:

David C. Weindorf, Ph.D., P.G.
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David C. Weindorf, Ph.D., P.G.
Vice President for Research and Innovation

Central Michigan University
Responsible and Ethical Conduct of Research (RECR) Implementation Plan

In accord with the America COMPETES act, the National Science Foundation (NSF) requires that, at the time of proposal submission, the Authorized Organizational Representative certify that the institution has a plan to provide responsible and ethical conduct of research training to undergraduate students, graduate students, postdoctoral researchers, faculty, and other senior personnel receiving a salary, wages, or stipends to conduct research from a NSF funded project, if awarded.

As of January 4, 2010, a Central Michigan University Principal Investigator (PI) receiving NSF funding which provides salary, wages, or stipends to any undergraduate students, graduate students, or postdoctoral researchers conducting research has been required to follow the university's plan in providing Responsible and Ethical Conduct of Research (RECR) training.

NSF's RECR policy has been amended to require mandatory RECR training for faculty, staff and other senior personnel in addition to undergraduate students, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research on any newly funded projects (exclusive of supplements, amendments, etc.) as of July 31, 2023.

The Office of Sponsored Programs (OSP) carries the institutional responsibility of verifying that the required training is completed.

Federal Funding – non-NSF
This implementation plan applies to all federal sponsors requiring RECR training. If the federal sponsor has additional requirements not listed within this plan, OSP will work with the PI to ensure the necessary RECR training requirements are fulfilled.

PI Responsibility

It is up to the Principal Investigator (PI) to inform all individuals receiving financial support from a NSF funded project to conduct research about the RECR training requirement and to ensure that they complete the training in a timely fashion. Furthermore, PIs are encouraged to openly discuss responsible and ethical conduct of research with their research team. It is highly important that PIs have a vested interest in the research team not only completing their research agenda, but doing it responsibly; research misconduct can result in returning grants, fines, and censure from future grants.

When students or post-doctoral researchers are supported from an NSF funded project, it is expected that the PI will serve in the role of a mentor and provide mentorship. Mentorship is a vital component of academic projects and pursuits. The relationship allows for healthy collaboration of a professional and a novice learner, assistance in the development of future professionals, and provision of instruction on conducting projects responsibly and ethically.

Please see Exhibit A for a list of expectations of both mentees and mentors.

Training Mechanism
Individuals who are subject to the requirements of RECR are expected to complete the following core training:

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CMU is an institutional member of the Collaborative Institutional Training Initiative* (CITI) and has worked with them to provide discipline appropriate Responsible Conduct of Research (RCR) online training through their web site: https://www.citiprogram.org. This training includes modules on a wide variety of areas including, but not limited to: collaborative research, conflict of interest and conflict of commitment, data management, mentoring and healthy research, authorship, peer review, and research misconduct.

While each individual that requires training must complete the quizzes under their registration in the CITI program, it may be beneficial to read through the training modules as a group to promote discussion and understanding of best and common practices in a specific field of research.

An individual must receive a score of at least 80% on the overall CITI RCR discipline specific course in order to successfully complete this training requirement. If an individual receives an overall score equal to or greater than 80%, but receives a score of less than 80% on an individual module, they are responsible for notifying the PI of the outcome. The PI can then discuss the module's content with the individual to ensure a clear understanding or direct the individual to retake the module.

It is required that all PIs, Co-PIs, and other senior personnel pass all individual modules with an 80% or higher; accordingly, modules must be retaken to achieve the required score.

Any individual that does not complete the course with an overall score equal to or greater than 80% will be required to retake the course.

Please note that the CITI RCR modules are separate from the CITI course modules available for Human Subjects training, required for all personnel involved in human subject research. The RCR courses may not be used to satisfy CMU's requirements for training in human subjects and vice versa.

Training Timeline

PIs, Co-PIs, and other senior personnel must complete discipline specific CITI RCR training **within 60 business days** of CMU receiving the award notification. All other individuals must complete discipline specific CITI RCR training **within 30 business days** of having started receiving financial support for research-related work on a NSF grant.

1. If the Office of Sponsored Programs has not received verification of RCR training completion within the allotted timeframe, the individual's salary, wages, or stipend will be taken off of the grant account. No payroll expenses for the time period prior to successful completion of RCR training will be allowed to be charged to the grant account. If the individual who has not met the requirement is a PI, Co-PI, or other senior personnel, the grant account may be blocked until completion of the training.

2. The RCR training is considered active and compliant for four years from the time of satisfactory completion, as described above.

3. At the point of expiration, an individual is required to complete the training within 10 business days of the date of expiration to stay compliant. After the 10-day grace period, no payroll

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expenses incurred after expiration and prior to successful completion of RCR training will be allowed to be charged to the grant account. If the individual who has not met the requirement is a PI, Co-PI, or other senior personnel, the grant account may be blocked until completion of the training.

Payment

<u>RCR training costs (for example related to an individual's time to complete the training) cannot be expensed to a funded project</u>.

Exhibit A: Mentorship

Mentees - Example of Expectations and Responsibilities:

- Responsible for understanding the focus for the research
- Responsible for taking initiative on my assigned projects
- Will be personally responsible for my research
- Will commit to become increasingly independent throughout the duration of the project
- Will collaborate with the research team to develop a timeline to achieve educational and research goals
- Will dedicate myself to academic honesty and respect of all ethical standards
- Will commit to the responsibility of knowing university policies, deadlines, and requirements for the research project
- Will commit to the practice of self-reflection
- Will commit to making the time to meet with my mentor on a regular basis throughout the research and mentoring process
- Will be respectful of my mentor's time
- Will communicate agenda and goals with my mentor prior to our meetings
- Will keep the content of conversations with my mentor confidential
- Will practice active listening
- Will provide my mentor with honest, direct, and respectful feedback
- Will understand that the feedback received from my mentor is to be honest, direct, respectful, and a resource for professional development

Mentors - Example of Expectations and Responsibilities:

- Will commit to the facilitation of training and professional development of my mentee
- Will encourage a progressive level of independence and responsibility of the mentee in research and scholarly pursuits
- Will commit to the provision of sufficient opportunities and resources to the mentee
- Will commit to the provision of adequate guidance to the mentee
- Will serve as an advocate for my mentee
- Will commit to encouraging and motivating my mentee to move beyond their comfort zones
- Agree to support and facilitate professional networking
- Will make the time to meet on a regular basis throughout the research and mentoring process
- Will keep the content of mentee-mentor conversations confidential
- Will practice active listening
- Will provide my mentee with honest, direct, and respectful feedback
- Will understand that feedback given to me by mentee is to be honest, direct, respectful, and a resource for professional development
- Will give appropriate credit to the mentee in any publications resulting from the project
- Will commit to avoiding conflicts of interest in my role as a mentor

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