

BMB Responsible Conduct of Research 2021

Mentoring and RCR

Thank You!

RCR Training Committee

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Thank YOU in advance for your thoughtful participation in today's session.

Why Are We Here?

RCR is essential to good science!

This is our annual BMB Department RCR training.

This is in addition to mandated graduate school training for students and site-specific lab training for students, postdocs and professional lab personnel.

Goals

Increase knowledge of, and sensitivity to, ethical issues related to mentoring by researchers with diverse perspectives.

Increase skills related to ethical decision making and conflict management.

Foster open communication and respect about issues.

Cultivate a culture of scientific integrity at MSU.

Reporting RCR Misconduct at MSU

Jim Pivarnik - Research Integrity Officer

rio@msu.edu

(517) 432-6698

Misconduct Hotline

<https://misconduct.msu.edu/>

(800) 763-0764

Option to remain anonymous

Agenda of Activities

Welcome and introduction

Breakout session 1: Case study discussion (20 min).

Full group discussion summary (10 min).

Breakout session 2: Additional perspectives discussion (20 min).

Full group discussion summary (10 min).

Closing

Breakout Session 1: Case Studies

Case 1: RCR Adherence and Healthy Lab Environments

Case 2: RCR and the Mentor-mentee Power Imbalance

Case 3: RCR and the Importance of Clear and Effective Communication

(4) Role play: RCR and How to Deliver Difficult Information

Get ready for breakout session 1...

Each breakout is 20 minutes long, and you will get a message a minute before the end.

We ask that at least one person from each group be prepared to describe 1-2 take away messages from your discussion.

If you are in group 1, 5, 9, 13, ... please discuss case 1

Group 2, 6, 10, 14, ... please discuss case 2

Group 3, 7, 11, 15, ... please discuss case 3

Group 4, 8, 12, 16, ... please do the role play

Scenario Discussion (Pre-session 1)

In each case study, there are two main layers you might consider:

1. The face-value/intended RCR-related lessons.
2. The perspective (and possible unconscious bias) of the author of this resource from the U.S. Office of Research Integrity.

[The discussion questions for your group can be found in your copy of this Google slides in your email](#)

Case 1 → Slide # 11

Case 2 → Slide # 12

Case 3 → Slide # 13

Role Play → Slide # 14

Scenario Discussion (Post-session 1)

Face-value Scenario Summaries:

1. Case 1 (Groups 1, 5, 9, 13, etc.):

- Post-doc Terek, who is about to leave for a new job, is unsure of how to deal with his replacement Scott's inappropriate and unethical behavior towards a female graduate student in the lab.

2. Case 2 (Groups 2, 6, 10, 14, etc.):

- Graduate student Kara is already feeling overloaded by her research duties when she is given time-consuming teaching responsibilities by her PI, Dr. Srichaphan. Dr. Srichaphan blames Kara's teaching abilities on the presence of an undergraduate cheating ring in the course.

3. Case 3 (Groups 3, 7, 11, 15, etc.):

- Dr. Ho runs a demanding lab. His lab tech, Mohamed, and lab manager, Nick, have a misunderstanding that leads to questionable experiment results.

4. Role play (Groups 4, 8, 12, 16, etc.):

- A professor finds the work of their enthusiastic student to be inadequate.

Discussion Ideas (Case 1): RCR Adherence and Healthy Lab Environments

- Why did Terek not use his “abundance of interpersonal skills” to check on his female labmate, and instead, only consulted Scott? Why did Terek drop the conversation after Scott said that he and the female grad student were dating?
- In what ways could Terek have done a better job promoting a safe and inclusive environment?
- Would the relationship between Scott and the female grad student be appropriate?
- What might Terek’s fearfulness about bringing the matter to Dr. Schaefer’s attention suggest about their lab environment/culture?
- What are examples of potential unconscious or conscious bias in this scenario, either from the characters or the author?

Discussion Ideas (Case 2): RCR and the Mentor-mentee Power Imbalance

- Could Kara have prevented this situation from occurring?
- How did the balance of power between a faculty member and their student impact Kara's ability to prevent/navigate this situation?
- Dr. Srichaphan blames the cheating circle on Kara's teaching. Is this justified?
- What are some ways in which a misuse of power could lead to a lack of responsible conduct of research?
- How can you as a faculty member, post-doc, graduate student, or lab member who is placed in a mentoring role, work to prevent abuses of power in your own lab and department?

Discussion Ideas (Case 3): RCR and the Importance of Clear and Effective Communication

- Dr. Ho is described as behaving in a domineering manner towards his lab. Do you think a scenario involving research misconduct would have been as likely to happen in a lab where the PI instead promoted an open, communicative, and collaborative environment?
- Intentionally falsifying data is incompatible with the scientific process. Yet, well-meaning researchers can unconsciously misinterpret results in a way that overestimates agreement with a hypothesis. How do high-pressure lab environments and “publish or perish” culture contribute to this?
 - How can we foster an environment that prevents this from happening?
- Can you find evidence that the author of this scenario displays bias towards any of the characters (Mohamed, Nick, or Dr. Ho)?

Discussion Ideas (Role Play): In addition to role playing, let's discuss the situation

- What are other options for the professor and student to consider?
 - What is the specific problem with their experiments? How can this be changed?
 - What kind of practice, classes, or workshops are available for improving writing skills?
 - What are techniques for improving their studying and organizational skills?
 - Other suggestions?
- An interpretation of this scenario is that the PhD student in question has a disability/disabilities, of which they might or might not be aware.
 - What is the role of the mentor or what can the mentor do if this is the case?
 - What are resources available to the PhD student?
 - How can Federal, State or institutional rules impact the PI's ability to get health information, and potentially help, the student?

Disability resources/information at MSU:

- <https://civilrights.msu.edu/accessibility2/index.html>
- <https://www.rcpd.msu.edu/services>

Breakout session 2: Additional Perspectives

‘Of course, the mentor-trainee relationship requires positive contributions from both parties. Trainees have responsibilities to respect mentors’ time and resources by doing the work assigned in a conscientious way; they are expected to follow research protocols and adhere to agreements regarding authorship and ownership.’

From RCR Casebook:

<https://ori.hhs.gov/rcr-casebook-mentor-and-trainee-relationships>

Are there other issues of RCR in the mentor-mentee relationship that were not presented in the case scenarios?

Breakout session 2: Discussion prompts

What are some responsibilities of a mentee to facilitate a good research environment?

In your experience, what are effective ways to outline expectations from all parties involved?

Are there special considerations in cases where a mentee may have multiple mentors with different expectations?

How can the department help support both the mentors and mentees effectively?

Thank you for all for attending and the organizers for putting this event together!

Remember, RCR training continues throughout our entire careers

The annual BMB RCR session is one of multiple components of annual training, including lab specific discussions, grad program and training grant specific activities.

Mentoring is an activity in which all of us are involved in one way or another - doing it right is challenging and also a big responsibility. We can learn from our experiences and those of others.