# Research Misconduct

## “What is it? How Does it Happen? Could it Happen to you”

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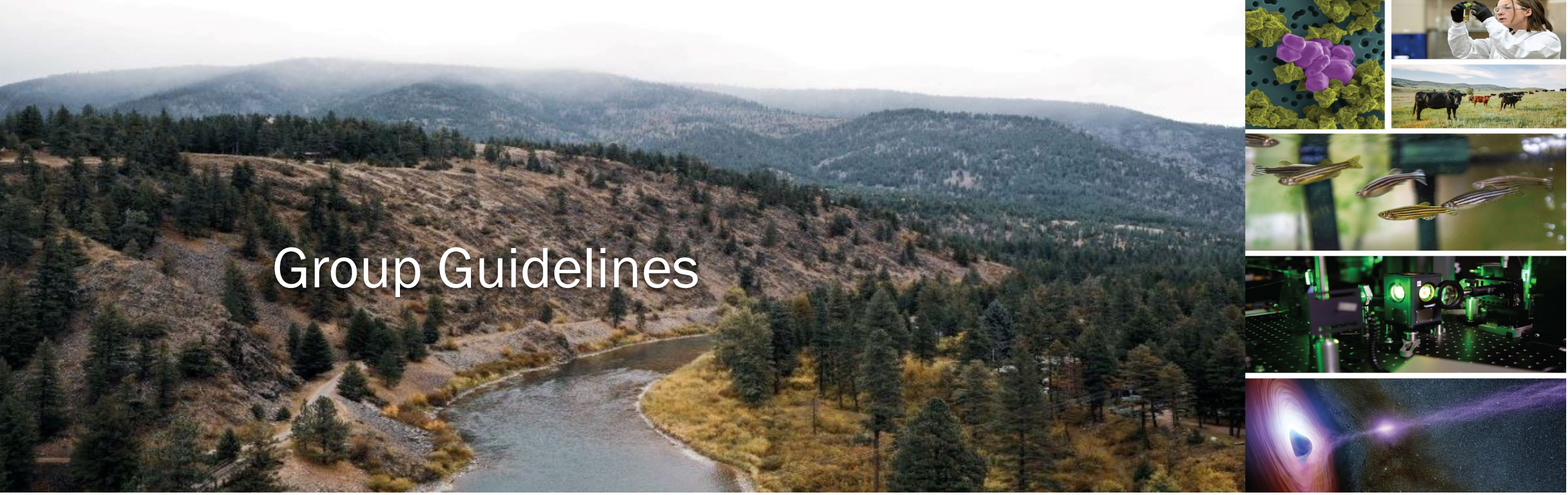
# Disclaimer

The opinions expressed are those of the presenters and may not necessarily reflect Montana State University.

MONTANA STATE UNIVERSITY



# Group Guidelines

- Stories stay, lessons leave
- Make sure everyone is heard in your small group discussions
  - Limit your comments to a couple of sentences so that you don’t dominate the discussion.
  - Three and me principle where you allow three people to speak before you speak again.
- Speak with the expectation you will be heard and listen with the opportunity to be changed.
- Use “I” statements so that you are speaking from your personal experience.
- Take risks and expect discomfort: We ask that you contribute to discussions and exercises by sharing your thoughts, feelings, and experiences. Sometimes this may involve personal discomfort and risk taking. It is up to you the degree of risk or disclosure you make.

# Research Misconduct Background

Federal Regulation since 1985: “Health Research Extension Act”

42 CFR PART 93: Defines the expectations of institutions regarding Research Misconduct and responsibilities of reviewing a research misconduct case.

# Research Misconduct

In proposing, performing, or reviewing research results:

**Fabrication**

**Falsification**

**Plagiarism**

# Research Misconduct

In proposing, performing, or reviewing research results:

**Fabrication:** making up results and recording or reporting them.

# Research Misconduct

In proposing, performing, or reviewing research results:

**Falsification:** manipulating research materials, equipment, or processes, or changing or omitting results such that the research is not accurately represented in the record.

# Research Misconduct

In proposing, performing, or reviewing research results:

**Plagiarism**: appropriation of another person's ideas, processes, results, or words without giving proper credit.

# Criteria for Research Misconduct

- ✓ Represents a significant departure from accepted practices
- ✓ Has been committed intentionally, knowingly, or recklessly
- ✓ Can be proven by a preponderance of evidence

- NOT Misconduct: honest, unintentional error

# Not Research Misconduct

- Authorship disputes
- Conflict of Interest/Conflict of Commitment
- Bad Mentorship
- Collaboration disputes
- Non-adherence IACUC, IRB, IBC policies and regulations

# Why Does Misconduct Occur?

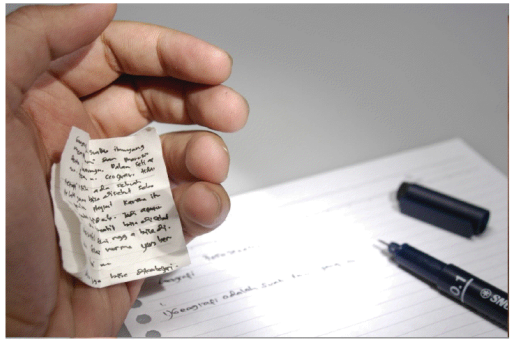

- Publish or Perish Pressure
- Desire to "get ahead"
- Personal problems
- Character issues

# Moral Reasoning

The rules do not apply to me

I don't understand the rules


It is a victimless offense



Tired or...

I was too hungry or...

The rule does not fit the context


I was righting a wrong done to me

There are other things I value more

**Adapted from:**

John Pijanowski

University of Arkansas

https://sites.google.com/site/pijanowskihome/Home/nsf-biological-research-experience-for-undergraduates

# Bad Research Behaviors Research Misconduct

| | |
|---|---|
| Falsifying | Falsifying or ‘cooking’ research data |
| Using | Using another’s idea without obtaining permission or giving credit |
| Failing | Failing to present data that contradict one’s own previous research |
| Removing | Removing observations or data points from results |
| Publishing | Publishing the same data in two or more publications |

# POSSIBLE RED FLAGS OF RESEARCH MISCONDUCT

## TIME

- Usable data are only generated when there is a pressing deadline
- Experiments are completed faster than usual

## RESULTS

- Data are too good to be true
- Findings can't be replicated by others in the lab

# POSSIBLE RED FLAGS OF RESEARCH MISCONDUCT


ORI THE OFFICE OF RESEARCH INTEGRITY

# Follow Your Research Misconduct Policy

## Research Misconduct Policy

Research Misconduct Policy PDF Download

| | |
|---|---|
| **Subject:** | **Research Misconduct Policy** |
| **Revised:** | **October 6, 2021, November 11, 2022** |
| **Effective:** | **November 15, 2012** |
| **Review Date:** | **November 11, 2025** |
| **Responsible Party:** | **Office of Research Compliance** |

### TABLE OF CONTENTS

# Research Misconduct Process

Assessment – RIO evaluates the allegation to determine whether it meets the elements of a research misconduct allegation.

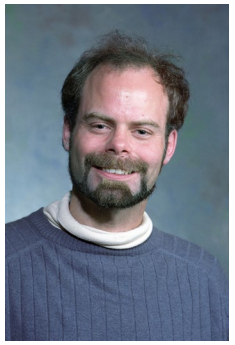
Inquiry- Gather information and initial fact-finding to determine whether an allegation or apparent instance of research misconduct warrants an investigation.

Investigation - explore in detail the allegations, to examine in depth to determine specfically whether misconduct has been committed, by whom, and to what extent.

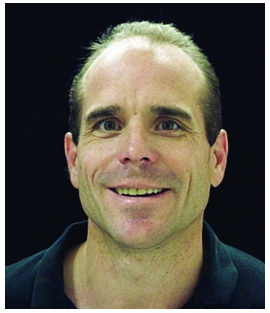
# Some Famous Cases

- Duke University – Anil Potti – Cancer Research

- University of Kansas – Mahwah Visvanathan and Gerald Lushington – Computer Scientist



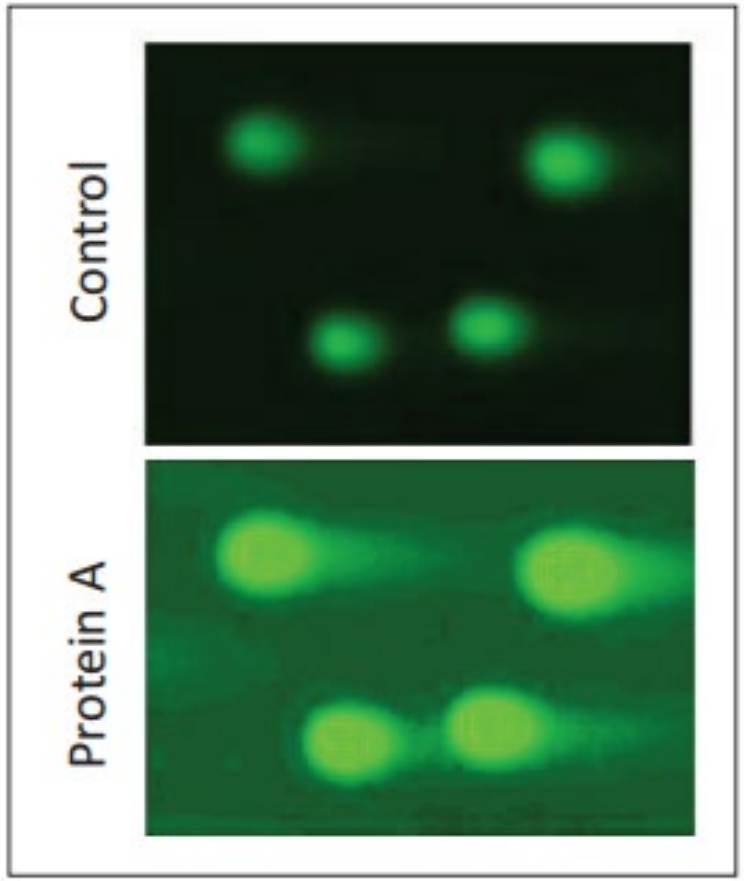
- Columbia University – Bengu Sezen – Chemistry



- Penn State – Craig Grimes - Biomedical

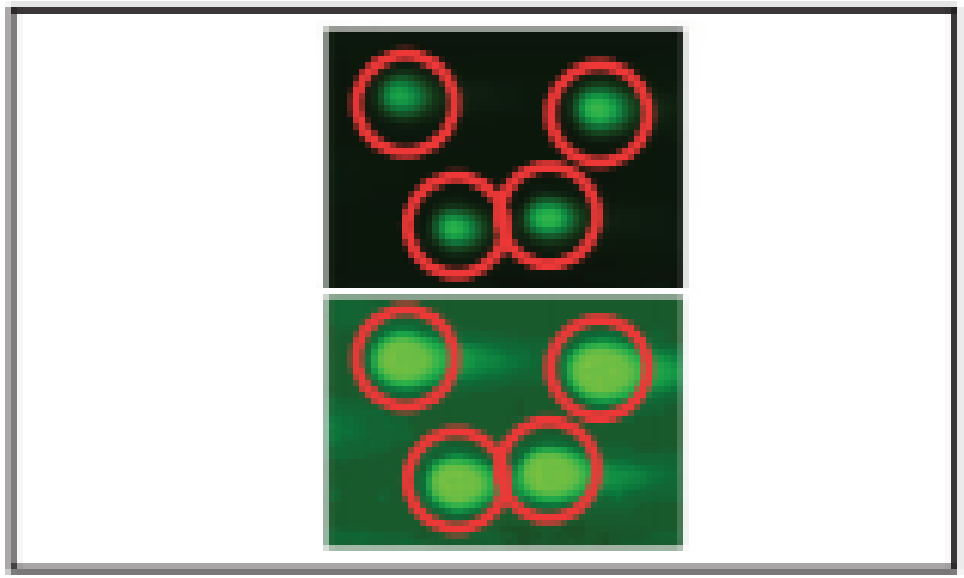
# Case Studies

## FIGURE 1. COMET ASSAY

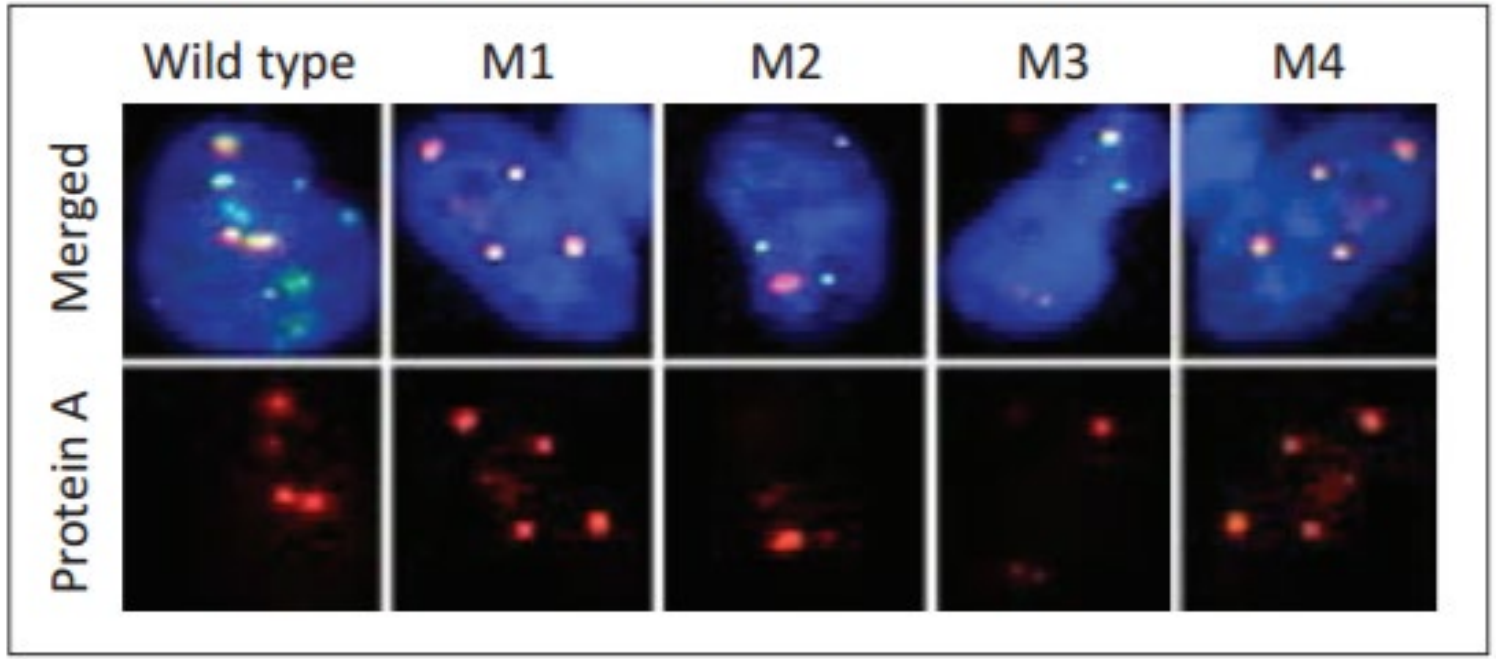


## FIGURE 1. COMET ASSAY

The control image was cropped and relabeled as the image for Protein A. It was also intentionally lightened to make the "tails" appear longer.



## FIGURE 2. IMMUNOFLUORESCENCE COLOCALIZATION ASSAY



## FIGURE 2. IMMUNOFLUORESCENCE COLOCALIZATION ASSAY

M1 and M4 are the same image but flipped vertically.