

# RESEARCH TRAINEES

## WHAT YOU NEED TO KNOW ABOUT RESEARCH MISCONDUCT

Misconduct

### Anyone Can Report Misconduct

Scientists are obligated to point out errors regardless of their position in the lab. The research community depends on you to report misconduct.

### Institutions Have Policies to Protect All Involved

Every institution has a requirement to take all reasonable and practical steps to protect the reputation of those who report research misconduct and anyone falsely accused.

Of ORI's research  
misconduct cases<sup>3</sup>:

were reported by  
research trainees

were committed  
by research trainees

### You Can Report Research Misconduct Anonymously

Anyone can contact ORI anonymously by phone or email to address concerns.

240-453-8800

AskORI@hhs.gov

For the full definition of research misconduct, see 42 C.F.R. § 93.103. RIOs may have other titles, such as Chief Compliance Officer, Director of Compliance, Vice President/Dean of Research, or Director of Integrity. Statistics based on closed ORI case findings from 2011–2015. Trainees are students and postdoctoral fellows.



# IT'S A SLIPPERY SLOPE TO RESEARCH MISCONDUCT

It doesn't matter if you're an undergraduate researcher, a graduate student, a post-doc, or a principal investigator who is performing federally funded research, writing a research paper, or leading a research program; research integrity matters at every level.

**Small lapses in judgment could lead to a slippery slope ending in research misconduct.**

Be vigilant against these common lapses:

## **1. TAKING SHORTCUTS**

Lack of care in experimentation that might impact reproducibility

## **2. CHEATING**

Such as puffery, which is inflating your resume, can establish dangerous behavior patterns

## **3. "BEAUTIFICATION" OF IMAGES**

Removing an unwanted feature, even if unrelated to the result, could be scientifically significant

## **4. LACK OF APPROPRIATE CONTROLS**

Failure to perform a control with the experimental sample could affect result interpretation

## **5. COMPOSITE IMAGES**

Assemblies of images that are not clearly labeled, such as a montage of cell images from the same experiment but not labeled as such.

## **6. OUTLIERS**

Omitting outlier data without appropriate pre-experiment justification which alters the overall conclusion of the analysis

## **7. IMAGE MANIPULATION**

Splicing, cutting, or cropping images; without properly documenting changes, that alters the results or falsely claims a result which was not obtained.



# 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

## LACK OF TRANSPARENCY