

Misconduct in Research & Creative Activities

--November 17, 2016-

James Pivarnik

- Research Integrity Officer
 - Professor of Kinesiology & Epidemiology

What Every Student Should Know About Research Misconduct

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Character is doing the right thing when nobody's looking. There are too many people who think that the only thing that's right is to get by, and the only thing that's wrong is to get caught.

(J. C. Watts)

izquotes.com

A few recent research misconduct cases







Marc Hauser



- Studies cognitive evolution in primates
- Found guilty of 8 counts of research misconduct in 2010
- Harvard placed him on administrative leave, he later resigned

Dipak K Das



- Studied resveratrol
- Found guilty by UCONN of 145 instances of Research Misconduct
- Case began as an anonymous tip in 2008

Dong-Pyou Han



- HIV/AIDS researcher
- Added human HIV antibodies to rabbit blood
- The scam went on for years, the investigator resigned from IA State in Oct, 2013
- Sentenced to 57 months in prison

June 2, 2015

The Unraveling of Michael LaCour



Christopher Sowers

A UCLA grad student, Michael LaCour produced a monumental study about political persuasion.

Now he stands accused of fabricating the data.

Enlarge Image

By Tom Bartlett

By his own account, Michael J.
LaCour has told big lies. He
claimed to have received
\$793,000 in research grants. In
fact, he admits now, there were
no grants.

The researchers who attempted to replicate his widely lauded Science paper on persuasion

instead exposed a brazen fabrication, one in which Mr. LaCour appears to have forged an email and invented a representative for a research firm.

New York magazine's Science of Us blog noted that Mr. LaCour claimed to have won a nonexistent teaching award, and then caught him trying to cover up that fiction.

The Poehlman case: running away from the truth*

John E. Dahlberg[®] and Christian C. Mahler[®]

*U.S. Department of Health & Human Services, Office of Research Integrity
*U.S. Department of Health & Human Services, Office of the General Counsel

Keywords: scientific misconduct, lifetime debarment, criminal fraud, gerontology research, menopause transition

ABSTRACT: Eric T. Poehlman, Ph.D., was an internationally recognized, tenured professor at the University of Vermont (UVM) in Burlington when, in October 2000, a junior member of Poehlman's laboratory became convinced that he had altered data from a study on aging volunteers from the Burlington area. This suspicion developed into one of the most significant cases of scientific misconduct in the history of the US Department of Health and Human Services' (HHS) Office of Research Integrity (ORI), launching a US Department of Justice (DOJ) civil and criminal fraud investigation and, eventually, to a much publicized guilty plea and felony conviction. In the end, Dr. Poehlman admitted to 54 findings of scientific misconduct made by the UVM and ORI, agreed to retract or correct ten of his publications and to exclude himself from federal procurement and nonprocurement transactions for life. The United States Government's handling of this case was distinguished by a highly cooperative approach that integrated the resources of the US Attorney's Office for the District of Vermont (USAO) and both ORI and the Office of the Inspector General (OIG) in HHS in the common goal of prosecuting research fraud.

* The content of this article represents the personal views of the authors and does not express the opinion or policy of DHHS or its components.

A paper on this topic was presented at the 6th International Bioethics Conference on the subject of 'The Responsible Conduct of Basic and Clinical Research', held in Warsaw, Poland, 3-4 June 2005.

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Christian C. Mahler, J.D., Senior Attorney, Office of the General Counsel, Public Health Division, U.S. Department of Health & Human Services, 5600 Fishers Lane, Suite 4A-53, Parklawn Bldg., Rockville, Maryland 20857, USA; email: cmahler@psc.gov.

1353-3452: 2006. Published by Opragen Publications, http://www.opragen.co.uk.

Science and Engineering Ethics, Volume 12, Issue 1, 2006





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Concussion-Related Measures Improved in High School Football Players Who Drank New Chocolate Milk, UMD Study Shows

UPDATE: This press release refers to study results that are preliminary and have not been subjected to the peer review scientific process.

COLLEGE PARK, Md. — Fifth Quarter Fresh, a new, high-protein chocolate milk, helped high school football players improve their cognitive and motor function over the course of a season, even after experiencing concussions, a new preliminary University of Maryland study shows.

The study, funded through the Maryland Industrial Partnerships program and conducted by Jae Kun Shim, a professor of kinesiology in the School of Public Health, followed 474 football players from seven high schools in Western Maryland throughout the fall 2014 season.

"High school football players, regardless of concussions, who drank Fifth Quarter Fresh chocolate milk during the season, showed positive results overall," said Shim. "Athletes who drank the milk, compared to those who did not, scored higher after the season than before it started, specifically in the areas of verbal and visual memory."

Football players were tested before the season, after concussions and post-season



Download high-quality Fifth Quarter Fresh videos, photos and logos (including those shown below) via Mtech's public Dropbox folder.



Fifth Quarter Fresh bottle



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ABOUTUS

JANUARY 11, 2016





Why won't the University of Maryland talk about the chocolate milk/concussion study it was so eager to promote?

POSTED BY

CATEGORIES

TAGS



Health care journalism, News releases

chocolate milk, concussions, University of Maryland

Editor's note: In response to concerns first raised by HealthNewsReview.org in a news release review and the following blog post, the University of Maryland has announced it is conducting an investigation into the study at the center of this controversy.

Why did the University of Maryland issue multiple news releases about a health research project... and then decline to talk about it? That's just one of the questions piling up about research involving high school football players,

High School Football Players Who Drank New Chocolate Milk, UMD Study Shows" read the

headline. The lead went further, claiming not just an association, but that the milk was responsible.

It started routinely. I was asked by HealthNewsReview.org to take the first look at a news release from the University of Maryland.

concussions and a brand of chocolate milk. "Concussion-Related Measures Improved in SCIENCE OF US

BAD SCIENCE

The University of Maryland Has a Burgeoning Chocolate-Milk Concussion Scandal on Its Hands

By Jesse Singal > Follow @jessesingal



January 20, 2016 1:03 p.m.

1.5k Shares

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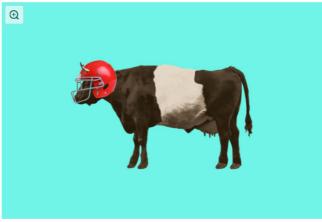


Photo-Illustration: Photo: Patrick Klok/Creative Commons

On December 22, the University of Maryland published a remarkable press release about some research it had conducted. According to the release, a study conducted by a professor at the UMD School of Public Health had shown that a product called Fifth Quarter Fresh — basically, a fancy, fortified chocolate milk - "helped high school football players improve their cognitive and motor function over the course of a season, even after experiencing concussions."

Given the current focus on youth concussions, it's no surprise that this news traveled fast and that the claim appears to have benefited the company in question. Motivated by what appeared to be sturdy scientific

ymag.com/scienceofus/

ww.healthnewsreview.org/category/news-releases-2/ gh-protein chocolate milk, helped high school football players

Wakefield's article linking MMR vaccine and autism was fraudulent

Clear evidence of falsification of data should now close the door on this damaging vaccine scare

FEATURE, p 77

Fiona Godlee editor in chief, BMJ, London, UK fgodlee@bmj.com Jane Smith deputy editor, BMJ, London, UK Harvey Marcovitch associate editor. BMJ. London, UK

Cite this as: *BMJ* ; :c doi: 10.1136/bmj.c7452 "Science is at once the most questioning and . . . sceptical of activities and also the most trusting," said Arnold Relman, former editor of the *New England Journal of Medicine*, in 1989. "It is intensely sceptical about the possibility of error, but totally trusting about the possibility of fraud." Never has this been truer than of the 1998 *Lancet* paper that implied a link between the measles, mumps, and rubella (MMR) vaccine and a "new syndrome" of autism and bowel disease.

Authored by Andrew Wakefield and 12 others, the paper's scientific limitations were clear when it appeared in 1998.²³ As the ensuing vaccine scare took off, critics quickly pointed out that the paper was a small case series with no controls, linked three common conditions, and

relied on parental recall and beliefs.⁴ Over the following decade, epidemiological studies consistently found no evidence of a link between the MMR vaccine and autism.⁵⁻⁸ By the time the paper was finally retracted 12 years later,⁹ after forensic dissection at the General Medical Council's (GMC) longest ever fitness to practise hearing,¹⁰ few people could deny that it was fatally flawed both scientifically and ethically. But it has taken the diligent scepticism of one man, standing outside medicine and science, to show that the paper was in fact an elaborate fraud.

In a series of articles starting this week, and seven years after first looking into the MMR scare, journalist Brian Deer now shows the extent of Wakefield's fraud and how it was perpetrated. Drawing on interviews, documents, and data

64 BMJ | 8 JANUARY 2011 | VOLUME 342

Office of Research Integrity



What the RIO does

The RIO is responsible for seeing to it that the MSU Procedures Concerning Allegations of Misconduct in Research and Creative Activities are carried out in an unbiased, confidential, and professional manner.

 Required for any institution seeking and accepting federal funding (42 CFR 93)

MICHIGAN STATE UNIVERSITY

Research Integrity Officer

Funding

Collaboratio

Compliance

mercialization

Resource

Policies

Events & Training

Units

Home

About

Authorship

Sample Agreement

Federal Agencies

Research Misconduct Procdures (PDF)

Research Data

Resources

Contact Us

Research Integrity Officer

The Research Integrity Officer (RIO) receives and manages Allegations of Misconduct in Research within the MSU community. Research Misconduct includes Plagiarism, Fabrication, Falsification, and other research activities that seriously deviate from accepted practices in the research community. The Michigan State University policy can be found in the Procedures Concerning Allegations of Misconduct in Research and Creative Activities.

The RIO also manages authorship and data disputes according to MSU's Authorship and Research Data: Management, Control, and Access guidelines. In this role, the RIO provides advice to administrators, faculty and students in best authorship and data management practices.

Please feel free to contact us if you have questions/concerns about any research integrity matter. Our discussions can remain confidential.



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Announcements

Search

MSU bloggers post on 'Spartan Ideas'
Spartan Ideas is an MSU website maintained by MSU Libraries and the Office of the Vice President for Research and Graduate Studies. It is designed to showcase a continuously growing selection of MSU's faculty, student, and staff blogs. A team of MSU librarians "curates" this collection,

1 2

choosing...more

PROCEDURES CONCERNING ALLEGATIONS OF MISCONDUCT IN RESEARCH AND CREATIVE ACTIVITIES

19 June 2009

The role of the RIO

 The RIO shall coordinate implementation of these Procedures and shall be responsible for their fair and impartial administration. The RIO shall not be an advocate for the Complainant or the Respondent.

Question

Is the RIO the most thankless job at Michigan State University?

Yes

Question

Is the RIO the most despised entity at Michigan State University?

No

We're number TWO!!

So who is first?



What exactly is "Research Misconduct"?



Research Misconduct (Michigan State)

Fabrication, Falsification, Plagiarism, or any other practice, that Seriously Deviates from practices commonly accepted in the discipline or in the academic and research communities generally in proposing, performing, reviewing, or reporting Research and Creative Activities. Misconduct does not include appropriative practices in the Creative Arts insofar as they accord with accepted standards in the relevant discipline. Misconduct does not include honest error or honest differences in the interpretation or judgment of Research data.

It doesn't matter what I think, the evidence says everything

Mac Taylor, CSI New York



How does the process begin?



Misconduct Process

- Allegation
 - Complainant(s)
 - Respondent(s)
- Preliminary Assessment (by me)
 - Meet definition?
 - Any evidence?

My most important phrase

My most important phrase

• "it could be"



Misconduct Process

- Allegation
 - Complainant(s)
 - Respondent(s)
- Preliminary Assessment (by me)
- Inquiry Panel
- Investigative Committee
- Exoneration or Finding

Fabrication

• Fabrication is making up data or results and recording or reporting them.

Falsification

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

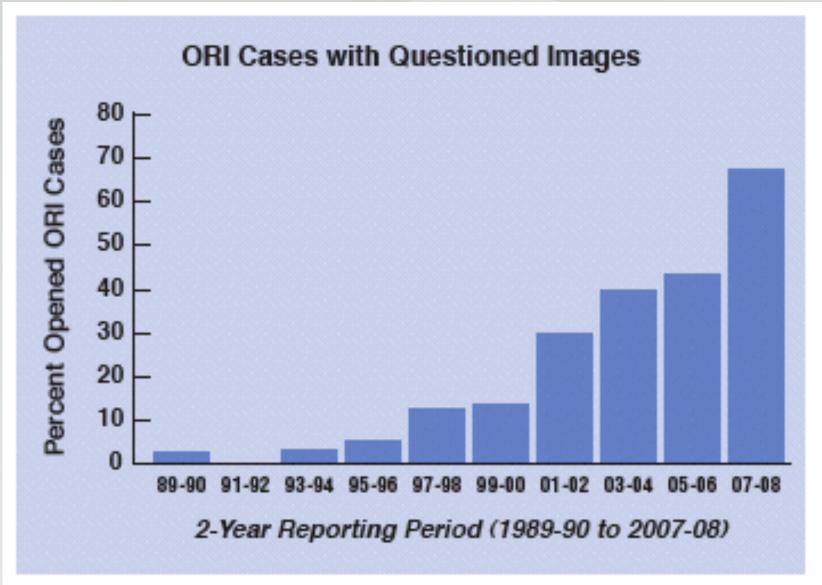


Figure 1: Cases formally opened by ORI that involve questioned images

Plagiarism

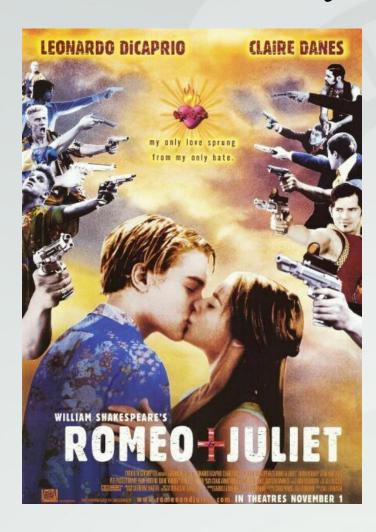
 Plagiarism is appropriation of another person's ideas, processes, results, or words without giving appropriate credit. Pyramus and Thisbe, in classical mythology, youth and maiden of Babylon, whose parents opposed their marriage. Their homes adjoined, and they conversed through a crevice in the dividing wall. On a night when they had arranged to meet at the tomb of Ninus, Thisbe, who was the first at the trysting place, was frightened by a lion with jaws bloody from its prey. As she fled, she dropped her mantle, which was seized by the lion. When Pyramus came, the torn and bloody mantle convinced him that she had been slain. He killed himself, and Thisbe, returning, took her own life with his sword. The white fruit of a mulberry tree that stood at the trysting place was dyed red with Pyramus' blood, and the fruit was ever after the color of blood.



- Written by Ovid
- Between 5-3 BC

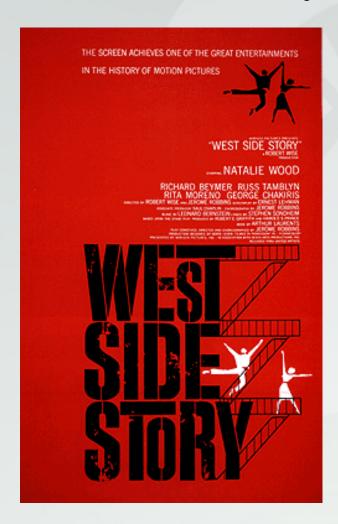
Does Pyramus and Thisbe remind you of anything?

Does Pyramus and Thisbe remind you of anything?



- William Shakespeare
- 1595

Does Pyramus and Thisbe remind you of anything?



- Arthur Laurents
- 1957

 Accusations of plagiarism should be judged individually, taking into account the actual damage done to the original author and current copyright holder, and whether or not the alleged theft actually has any artistic merits in its own right.

- Feb 27, 2007
- thunderpeel2001.blogspot.com
- Posted by Johnny Walker

A judgment of plagiarism requires that the copying, besides being deceitful in the sense of misleading the intended readers, induces *reliance* by them. By this I mean that the reader does something because he thinks the plagiarizing work original that he would not have done had he known the truth.

- Richard A. Posner
- The Little Book of Plagiarism (Pantheon Books, NY), 2007
- Page 19

Founded in 19

AMERICAN COLLEGE of SPORTS MEDICINE

Mission Statement: The American College of Sports Medicine advances and integrates scientific research to provide educational and practical applications of exercise science and sports medicine.

September 11, 2009

James M. Plvarnik, Ph.D., FACSM President Departments of Kinesiology and Epidemiology

Thomas M. Best, M.D., Ph.D., FACSM

Melinda Millard-Stafford, Ph.D., FACSM Immediate Past President School of Applied Physiology

Department of Exercise, Nutrition and Health Sciences

President-elect
The OSU Sports Medicine Center
The Ohio State University
Columbus. Ohio

Georgia Institute of Technology

Janice L. Thompson, FACSM First Vice President

The University of Bristol

First Vice President
Department of Health and Human Performance

Second Vice President
Department of Nutritional and Exercise Science

Oregon State University
Corvallis, Oregon
David C. Nieman, Dr.PH., FACSM

Second Vice President Human Performance Laboratory

Boone, North Carolina
J. Larry Durstine, Ph.D., FACSM

Appalachian State Universit

Department of Exercise Science University of South Carolina

Advanced Team Physician Course December 3-6, 2009 Phoenix, Arizona

ACSM Team Physician, Course, Part I

ACSM's 14th Health & Fitness Summit & Exposition April 7-10, 2010

ACSM's 57th Annual Meeting and World Congress on Exercise is Medicine"

Columbia, South Carolina James R. Whitehead Executive Vice President

ACSM National Center

Indianapolis, Indiana

February 24-28, 2010 Las Vegas, Nevada

Austin, Texas

June 2-5, 2010

Baltimore, Maryland

Bristol, UNITED KINGDOM Gregory W. Heath, DHSc, MPH, FACSM

University of Tennessee at Chattanooga Chattanooga Tennessee

Melinda M. Manore, Ph.D., R.D., FACSM

College of Health and Human Sciences

Atlanta, Georgia

Michigan State University East Lansing, Michigan President Barack Obama The White House Washington, DC 20500

Dear Mr. President:

On behalf of the more than 35,000 members and certified professionals of the American College of Sports Medicine (ACSM), I am writing to thank you for highlighting the importance of covering routine checkups and preventive care, like mammograms and colonoscopies, in your speech on Wednesday, Sept. 9, 2009, before a joint session of Congress.

However, we believe that prevention and wellness is much more than just clinical preventive services and should include initiatives designed to encourage healthy lifestyles, including increasing physical activity and improving nutrition. As you know, five of the costliest illnesses and conditions – cancer, cardiovascular disease, diabetes, lung disease, and strokes – can be prevented through a combination of healthy lifestyles and essential screenings.

ACSM is the largest sports medicine and exercise science organization in the world. Its members have applied their knowledge, training, and dedication in sports medicine and exercise science to promote healthier lifestyles for people around the globe. In addition to improving the health of citizens worldwide, our members' research has also proven that fitness increases worker productivity and job performance.

You may be interested to know that for more than two years ACSM has been spearheading an innovative program to prevent illness and disease. The Exercise is Medicine™ program, launched in conjunction with the American Medical Association, is designed to encourage America's patients to incorporate physical activity and exercise into their daily routine. Exercise is Medicine™ specifically calls on doctors to prescribe exercise to their patients, which is the kind of initiative that will help you achieve your goal of stepping up efforts to advance the cause of healthy living.

We thank you once again for your commitment to providing leadership on this issue and we look forward to working with you to ensure that healthy lifestyles, including increased physical activity and better nutrition play a much more prominent role in the future than it has in the past.

Sincerely,

AMERICAN COLLEGE
of SPORTS MEDICINE,
LEADING THE WAY

Street Address: 401 W. Michigan St.

Mailing Address: P.O. Box 1440 Indianapolis, Indiana, 46206-1440 USA

Telephone: (317) 637-9200 FAX: (317) 634-7817 Web Site: www.acsm.org Federal I.D. Number: 23-6390952 James M. Pivarnik, FACSM

James M. Prisonik

President

American College of Sports Medicine

cc:

Nancy-Ann DeParle, White House Office of Health Reform Kathleen Sebelius, HHS Secretary

Standard of Determination for Research Misconduct

- There be a **significant departure** from accepted practices of the relevant research community; <u>and</u>
- The misconduct was committed intentionally, knowingly, or recklessly; and
- The allegation be proven by a preponderance of the evidence

"I tend not to believe people. People lie. The evidence doesn't lie."

Gil Grissom, CSI



Serious Deviation from Common Practice

??????????????????

Serious Deviation from Common Practice

- Stealing, destroying, or damaging the research property of others with the intent to alter the research record
- Listing someone's name as an author on a publication, without his/her knowledge or permission

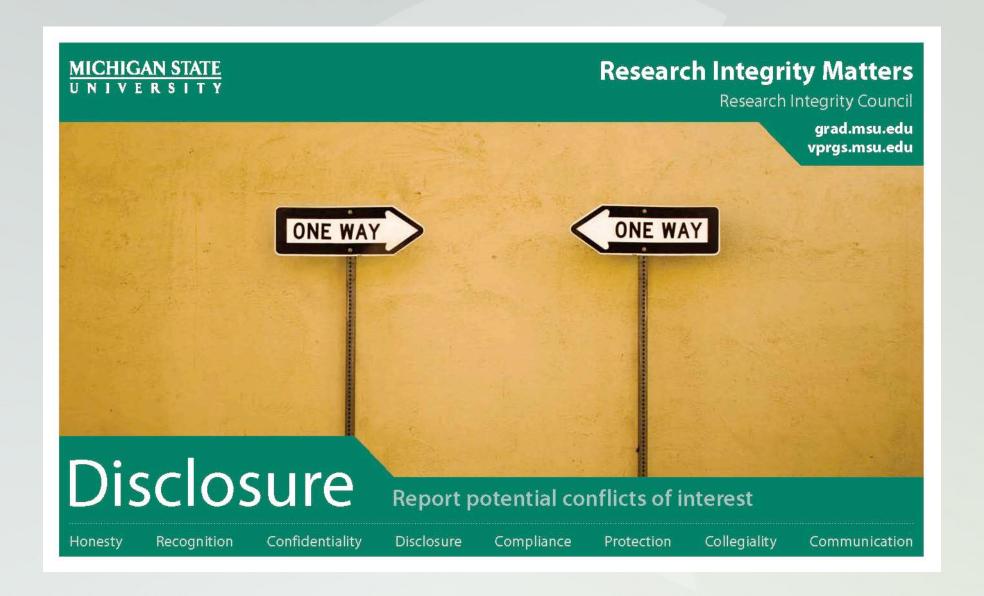
Serious Deviation from Common Practice

- Misrepresenting background information, including biographical data, citation of publications, or status of manuscripts
- Abuse of confidentiality: taking or releasing the ideas or data of others which were shared with the legitimate expectation of confidentiality, e.g., stealing ideas from others' grant proposals, award applications, or manuscripts for publication when one is a reviewer for granting agencies or journals

Question

Do we deal with any other bad things?

Sometimes







• "Unacceptable Research Practices" means practices that do not constitute Misconduct but that violate applicable laws, regulations, or other governmental requirements, or University rules or policies, of which the Respondent had received notice or of which the Respondent reasonably should have been aware, for proposing, performing, reviewing, or reporting Research or Creative Activities.

What about individuals who are always on the edge?



• "Questionable Research Practices" means practices that do not constitute Misconduct or Unacceptable Research Practices but that require attention because they could erode confidence in the integrity of Research or Creative Activities.



Question

• What percentage of potential allegations coming to our office is associated with some sort of previous conflict between/among the parties involved?

■ ~ 90%!!

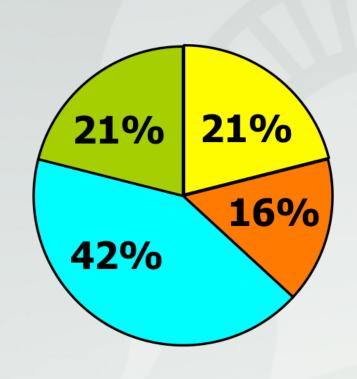
What's the Score?

We average about 6-10 new cases per year

What's the Score?

- Every case undergoes a Preliminary Assessment
 - Approximately 1/3 cases end there
- Of the 2/3 of cases that move on,
 - 1/3 end with an Inquiry
 - 2/3 move on to a full Investigation

Allegations of Research Misconduct, Received at MSU, 2007 – 2012



- Falsification
- Fabrication
- Plagiarism
- SeriousDeviation

Causes of research misconduct? (Davis et al, 2007)

- Individual
- Situational
- Organizational
- Structural
- Cultural

Hypothetical, of course

- Falsification/fabrication of data by a student
 - Complainant was faculty, and students
- Lab supervision could have been better

- Plagiarism in a dissertation by a student
 - Complainant was external to MSU
- Dissertation committee may not have provided proper oversight

- Serious Deviation and Plagiarism by a student
 - Complainants were faculty members
- Possible prior acts by Respondent drove the Allegation

- Plagiarism by a faculty member
 - Complainant was a student
- Case complicated by "agreements" made among administrators, faculty member, and student, that are not clearly understood by all parties

- Unacceptable Research Practices by faculty member
 - Complainant was a student
- Graduate Dean helped student secure another lab for doing the right thing



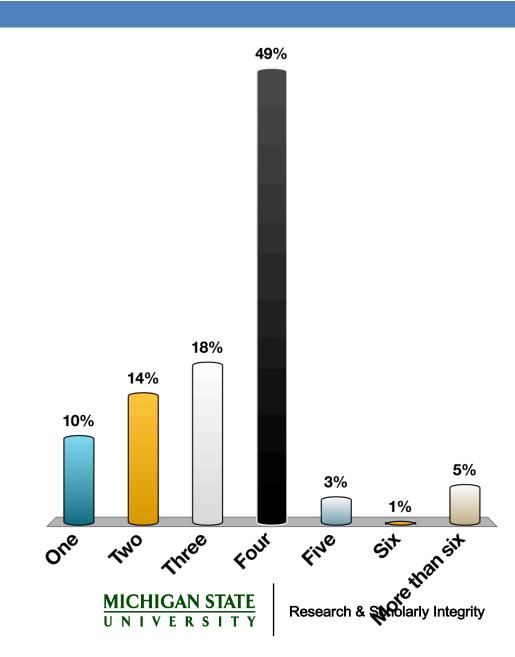
Thank you...Any Questions?



How many RCR Workshops have you attended, including tonight's?



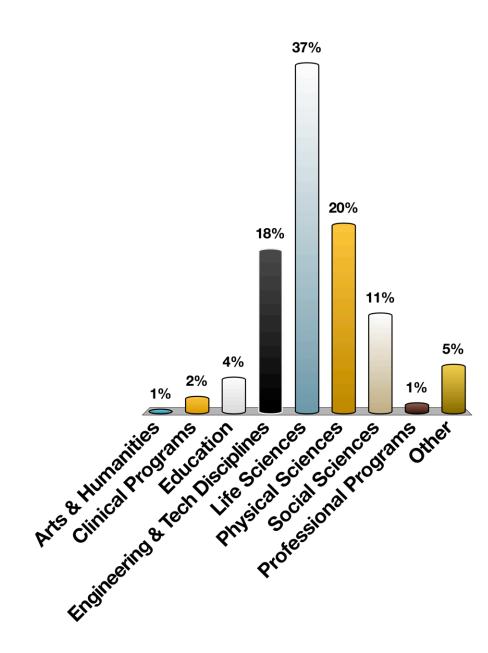
- ı. One
- 2. Two
- 3. Three
- 4. Four
- 5. Five
- 6. Six
- 7. More than six



Which of the following describes best your disciplinary academic affiliation



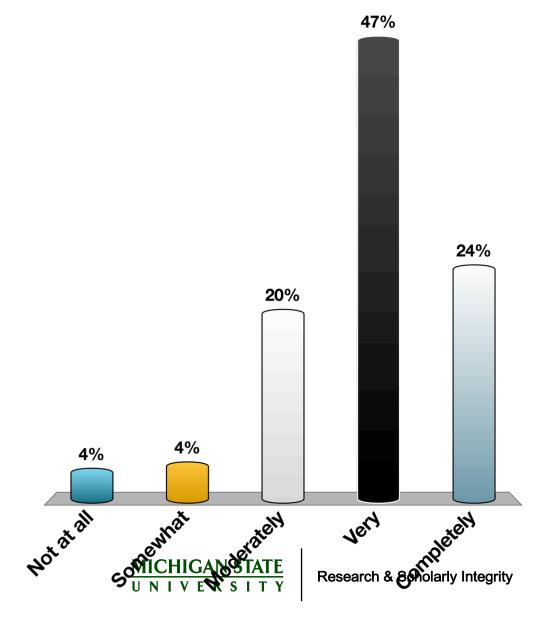
- Arts & Humanities
- 2. Clinical Programs
- Education
- 4. Engineering & Tech Disciplines
- 5. Life Sciences
- 6. Physical Sciences
- 7. Social Sciences
- 8. Professional Programs
- 9. Other



I understand and could explain what constitutes Research Misconduct at MSU.



- Not at all
- Somewhat
- Moderately
- 4. Very
- 5. Completely

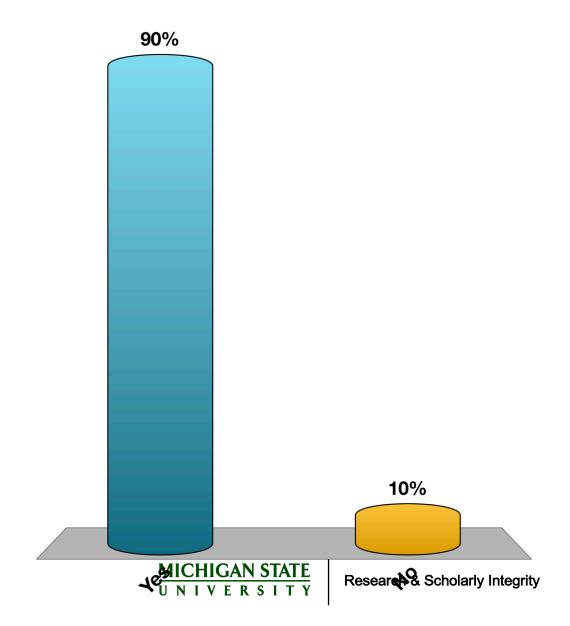


Do you feel that you have an obligation to report acts by others that you observe & know to violate University policies or Research Integrity Guidelines?



1. Yes

2. No

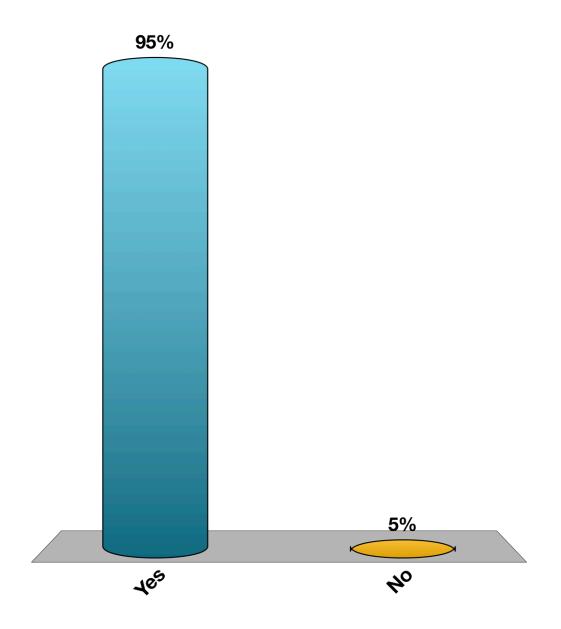


Would you report violations of academic integrity if it could be done anonymously?



1. Yes

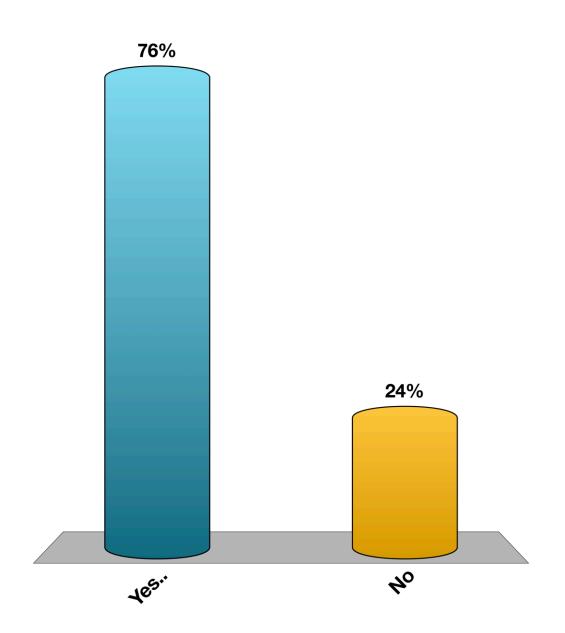
2. No



Would you report violations of academic integrity if it could NOT be done anonymously?



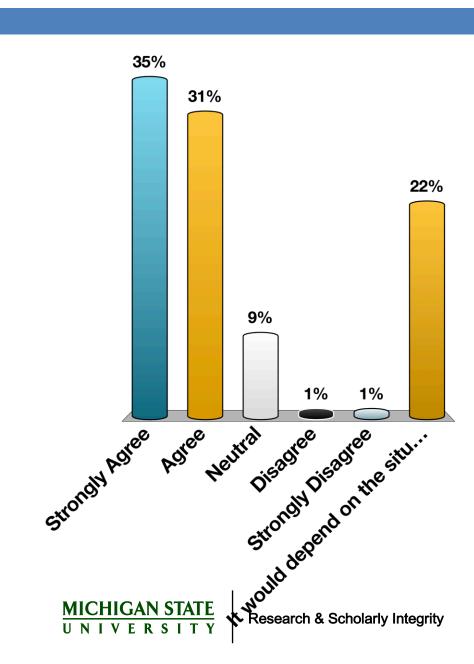
- 1. Yes..
- 2. No



I would report a fellow student to the RIO if I believed s/he committed research misconduct.



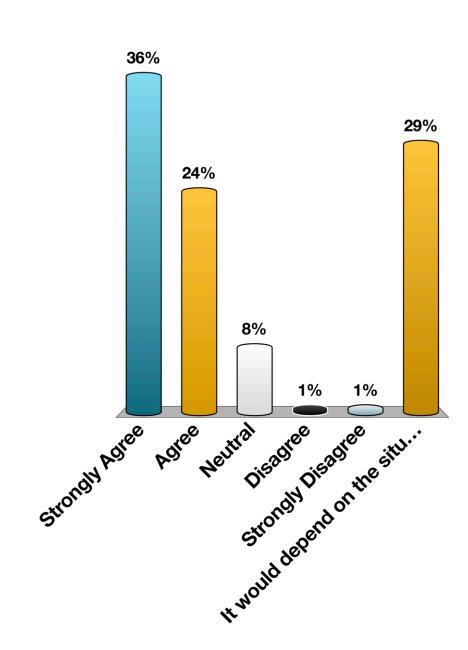
- Strongly Agree
- 2. Agree
- 3. Neutral
- Disagree
- Strongly Disagree
- It would depend on the situation



I would report a faculty member who was not my major professor to the RIO if I believed s/he committed research misconduct.



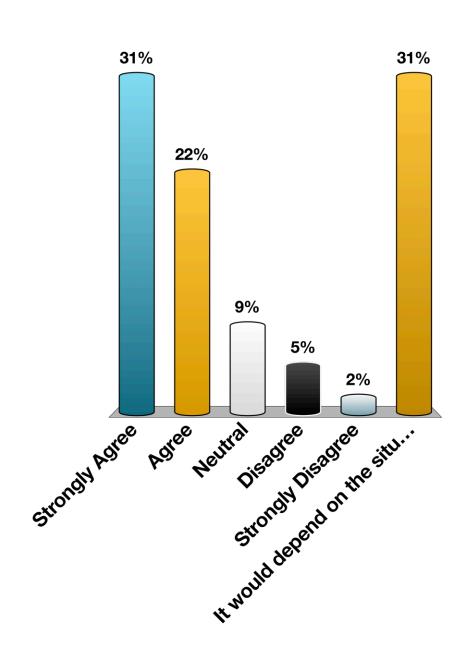
- 1. Strongly Agree
- 2. Agree
- 3. Neutral
- 4. Disagree
- 5. Strongly Disagree
- 6. It would depend on the situation



I would report my major professor to the RIO if I believed s/he committed research misconduct.



- 1. Strongly Agree
- 2. Agree
- Neutral
- 4. Disagree
- 5. Strongly Disagree
- 6. It would depend on the situation



Do you have direct knowledge of situations at MSU that you believe would constitute Research Misconduct based on tonight's explanations?



- 1. Yes
- 2. No

