Painting the Mice: Why Research Integrity & Compliance Affects all of Us

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Agenda

- Research Misconduct
- Federal Fraud
  - Grant Funding
- Reputational Harm
  - Erosion of public trust
  - Community harm
- The Role of Research Integrity & Compliance
  - Where to find us
  - What we do
  - How to get in touch

What is research misconduct?

1. Data fabrication: making up data or results and recording or reporting them
2. Data falsification: Altering values so that a desired outcome is found
3. Grant Fraud: deceiving the grantor about their spending of the award funds
4. Publication Fraud
    - “Shotgunning”: Submitting a paper for publication that is under review at another journal
5. Plagiarism
    - Using another author’s exact language without giving appropriate credit
    - Textual recycling or self-plagiarism
6. Authorship fraud
    - Gift Authorship: Accepting authorship credit on a paper without making a substantive contribution (ghost authorship is the opposite)

Plagiarism & Authorship Fraud are the most common

A passage in Gay's 2001 article described Bobo and Gilliam's study using nearly identical wording to theirs. The passage was preceded by a citation but did not directly quote any of the similar language.

Claudine Gay, 2001

In the most complete research to date, Bobo and Gilliam (1990) find that African Americans in areas of high black empowerment—as indicated by control of the mayor's office—are more active than either African Americans in low empowerment areas or whites of comparable socioeconomic status. Empowerment, they conclude, influences black participation by contributing to a more trusting and efficacious orientation toward politics (see also Abney and Hutcheson 1981; Howell and Fagan 1988) and by greatly increasing black attentiveness to political affairs. As for whites, the findings suggest that they pay less attention to local politics when blacks control local offices but do not become generally less trusting and efficacious as a result.

The Effect of Black Congressional Representation on Political Participation (p. 590)

Lawrence D. Bobo and Franklin D. Gilliam, 1990

(p. 377) The results show that blacks in high-black-empowerment areas—as indicated by control of the mayor's office—are more active than either blacks living in low-empowerment areas or their white counterparts of comparable socioeconomic status. Furthermore, the results show that empowerment influences black participation by contributing to a more trusting and efficacious orientation to politics and by greatly increasing black attentiveness to political affairs.

(p. 383) The level of black empowerment does not, however, consistently influence whites' feelings of trust and efficacy. In sum, whites tend to pay less attention to local politics when blacks control local offices but do not become generally less trusting or efficacious as a result.

Neri Oxman (academic married to vociferous critic of Claudine Gay)

Claus Mattheck

But a tree also arranges its material sensibly within the narrower limits of its possibilities: trees loaded on one side by wind become elliptical in the wind direction. An elliptical cross-section, however, has a moment of inertia [equation] where (a and b) are the semi-axes of the ellipse.
Thus, if the tree now deposits all its building materials in the zone of highest bending stress (tension side and compression side) by forming particularly wide annual rings there, this buildup goes into the third power of the larger semi-axis b in Eq. (4), while a widening in the direction of the small semi-axis is only linear.
The tree thus forms a non-circular cross-section which is stiffest against the prevailing bending load, and is characterized by smaller stresses than a uniformly circular cross-section with an identical external bending moment.
As we shall see later, root cross-sections may even assume nearly the shape of an I-beam which we know from civil engineering (Fig. 3), in which hardly any wood forms in the zone of neutral bending ($r = 0$).

Neri Oxman

The tree arranges its material sensibly within the narrower limits of its possibilities: trees loaded laterally on one side by wind become elliptical in the wind direction. Thus, if the tree now deposits all its building materials in the zone of highest bending stress (tension side and compression side) by forming particularly wide annual rings there, this buildup goes into the third power of the large axis (the longitudinal axis describing the trunk), while a widening in the direction of the small axis is only linear. The tree thus forms a non-circular cross-section which is stiffest against the prevailing bending load, and is characterized by smaller stresses than a uniformly circular cross-section with an identical external bending moment. Root cross-sections may even assume nearly the shape of an I-beam, in which hardly any wood forms in the zone of neutral bending.
Here the component is forced into an optimization of shape (Mattheck 1998).

But probably the most egregious…

1. Data fabrication: Making up data or results and recording or reporting them

2. Data falsification: Altering values so that a desired outcome is found

3. Grant Fraud: Deceiving the grantor about their spending of the award funds


GREENLAND (DENMARK)
ALASKA (USA)
CANADA
UNITED STATES OF AMERICA
MEXICO
COLOMBIA
VENEZUELA
PERU
BRAZIL
BOLIVIA
PARAGUAY
ARGENTINA
URUGUAY
FALKLAND ISLANDS (UK)
SOUTH GEORGIA (UK)
ICELAND
FAROE ISLANDS
SWEDEN
FINLAND
NORWAY
UNITED KINGDOM
IRELAND
POLAND
BELARUS
UKRAINE
FRANCE
SPAIN
PORTUGAL
ITALY
GREECE
ROMANIA
BULGARIA
TURKEY
MOROCCO
ALGERIA
LIBYA
EGYPT
IRAQ
IRAN
SAUDI ARABIA
OMAN
YEMEN
MAURITANIA
MALI
NIGER
CHAD
SUDAN
ERITREA
ETHIOPIA
SENEGAL
BURKINA FASO
GUINEA
GHANA
COTE D'IVOIRE
NIGERIA
CAMEROON
CENTRAL AFRICAN REPUBLIC
UGANDA
KENYA
SOMALIA
GABON
CONGO
DEMOCRATIC REPUBLIC OF THE CONGO
TANZANIA
ANGOLA
ZAMBIA
ZIMBABWE
NAMIBIA
BOTSWANA
SOUTH AFRICA
MADAGASCAR
RUSSIA
KAZAKHSTAN
MONGOLIA
CHINA
AFGHANISTAN
PAKISTAN
INDIA
NORTH KOREA
SOUTH KOREA
JAPAN
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Dr. Anil Potti, Duke University

- Grant: American Cancer Society $729,000
- Promised that 80% of patients enrolled in his drug trials would find the right drug
- All trials suspended
- Patients filed suit against Duke which settled for an undisclosed amount

Dr. Craig Rimes, Pennsylvania State University

- Grants: NIH & NSF
- $3 million
- Claimed his research on converting carbon dioxide into energy “could save the world”
- The judge in the case said that such a fraud would “undermine the integrity of the grant system”
- Sentenced to 3.5 years in prison & fined $660,000

Dr. Annarosa Leri, Harvard University

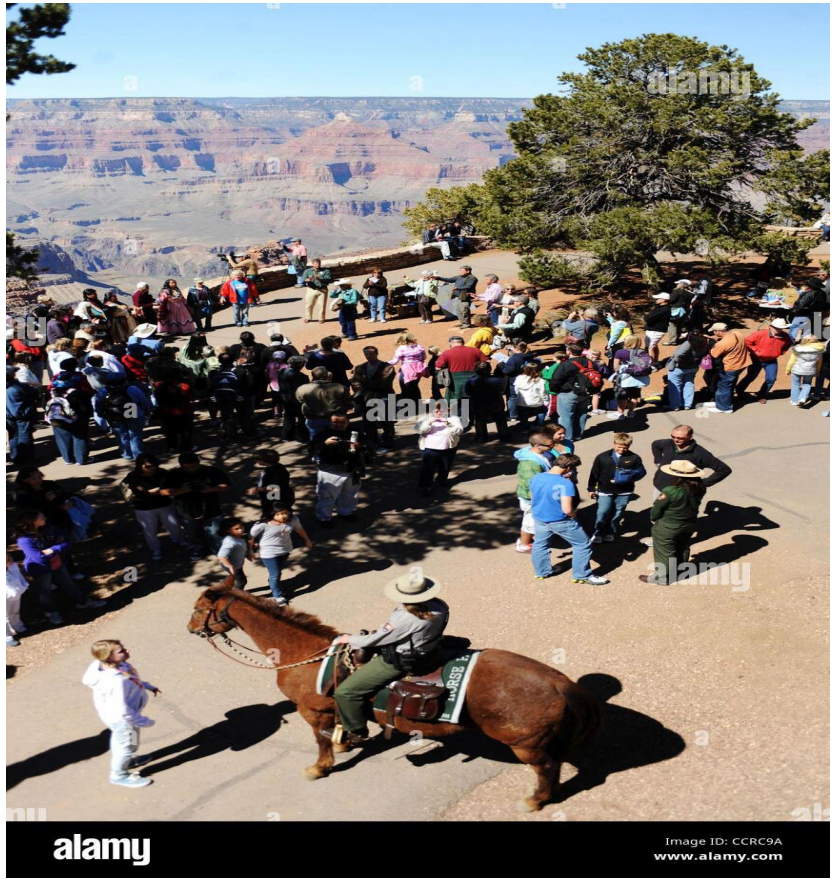
- Grants: NIH
- $42 million
- Claimed to have found regenerative properties in heart stem cells but admitted to falsifying data
- Harvard Medical School required to pay $10 million to NIH in a settlement

Dr. Luke Van Parijs, MIT

- Grants: NIH
- $$ - exact amount unknown
- Claimed that he could use a virus to cause blood cancer in mice and then be able to block it
- MIT had to return all spent grant money to NIH

Arizona State University & the Havasupai

- In 1989 members of the Havasupai tribe donated blood to find out if they had a genetic marker that had been found for another tribe which would account for their high rate of diabetes. No link was found.
- In 2003, a member of the tribe discovered that the blood samples were being used in multiple additional studies about the tribe that focused on inbreeding, alcoholism, schizophrenia and tribal origin

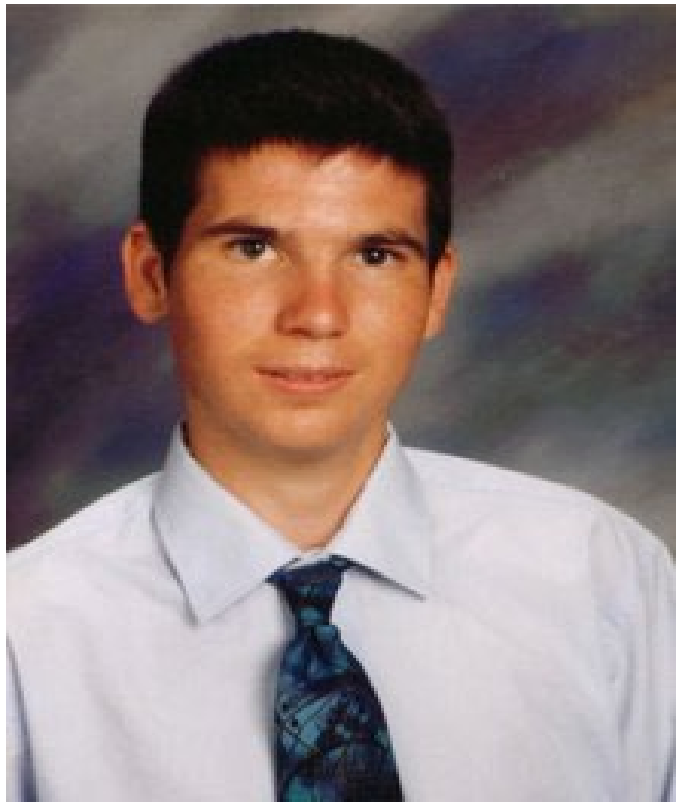


Continued…

- The theories generated from these data conflicted with many of the core beliefs of the tribe
- ASU fought to keep the case out of the Arizona courts – ultimately unsuccessfully
- *Havasupai Tribe vs. the Arizona Board of Regents* spent 7 years in litigation and in 2010, it was reported that ASU spent upwards of $1.7 million to defend itself
- The Havasupai agreed to a settlement of $700,000 and a host of reparation actions

Jesse Gelsinger, 18-year-old college student

- Joined a clinical trial for gene therapy at University of Pennsylvania linked to a disease that he had been born with and had survived
- He died 4 days after he had been injected with a viral vector of massive organ failure
- The FDA found that the university had failed to report two patients who had serious side effects and deaths of monkeys in an earlier animal trial
- Significantly set back gene therapy research



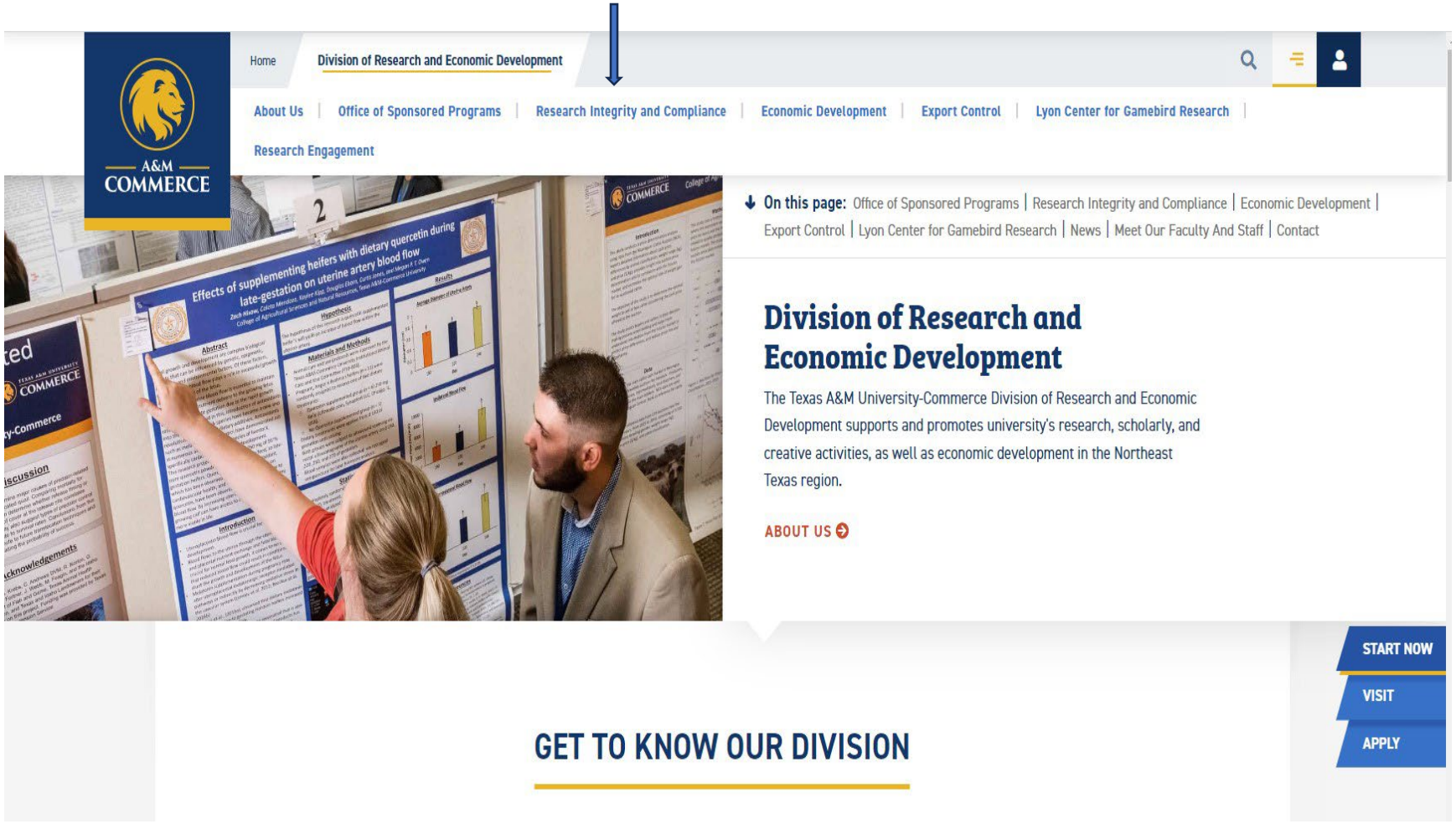
Scott Reuben, Tufts University

- Dr. Reuben admitted to undertaking NONE of the clinical trials that he had published over 13 years – this included a lot of the work on the use of NSAIDs after surgery which is now in question
- His case was described as “one of the longest-running and widest-ranging cases of academic fraud”
- He got six months in federal prison; 3 years supervised release and over $400,000 in fines

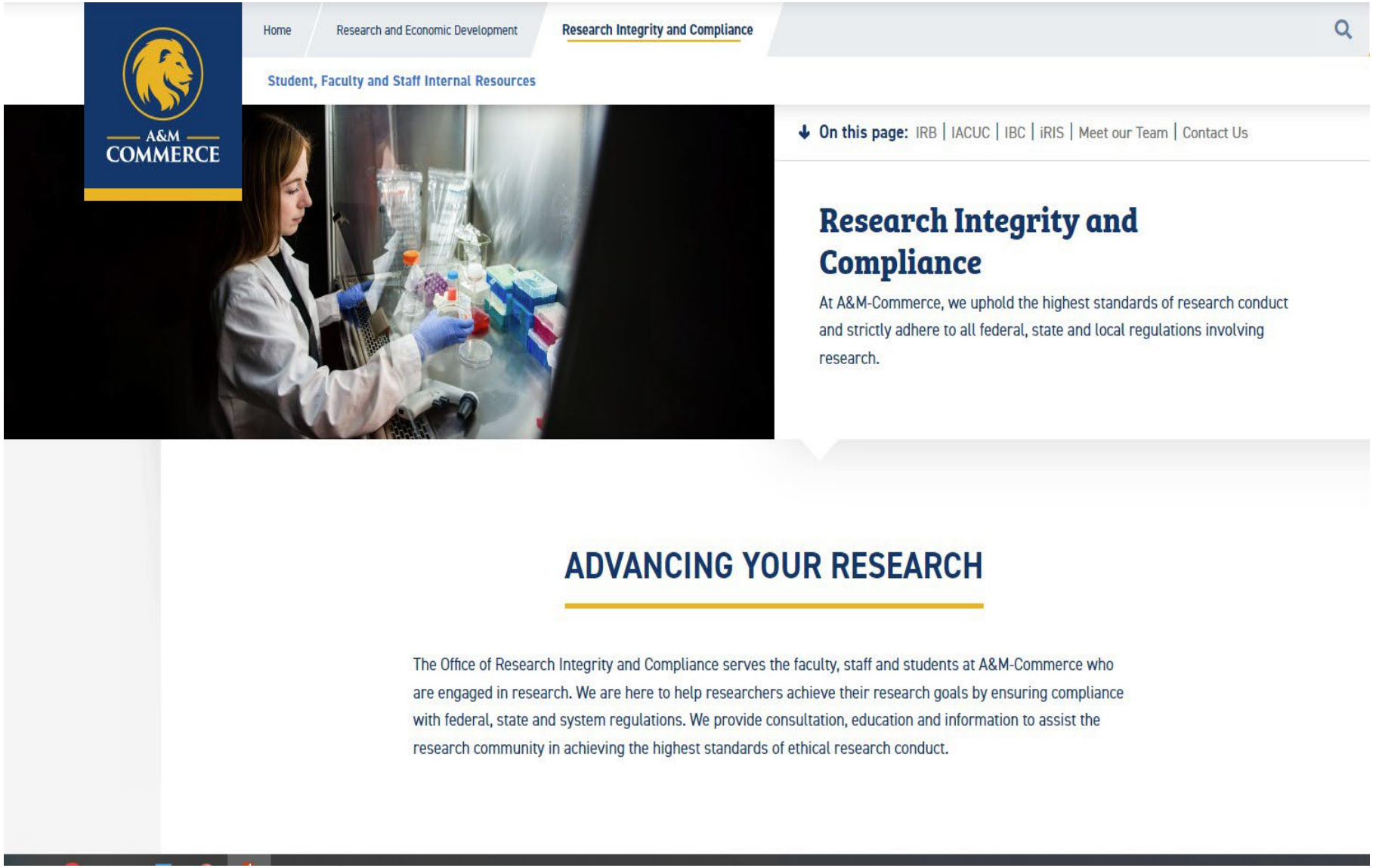
“You forgot to attach your IRB…”

- The Scott Reuben case was discovered by a routine audit in the research integrity and compliance office
- He was presenting a research study in an internal conference during the hospital’s Research Week. The officer couldn’t find any approval from the IRB.
- They discovered it was because he had never asked for IRB approval because he had never conducted the study!

Who are we and where can you find us?



Right here!


A&M
COMMERCE
Home
Research and Economic Development
Research Integrity and Compliance
Student, Faculty and Staff Internal Resources
On this page: IRB | IACUC | IBC | iRIS | Meet our Team | Contact Us
Research Integrity and Compliance
At A&M-Commerce, we uphold the highest standards of research conduct and strictly adhere to all federal, state and local regulations involving research.
ADVANCING YOUR RESEARCH
The Office of Research Integrity and Compliance serves the faculty, staff and students at A&M-Commerce who are engaged in research. We are here to help researchers achieve their research goals by ensuring compliance with federal, state and system regulations. We provide consultation, education and information to assist the research community in achieving the highest standards of ethical research conduct.

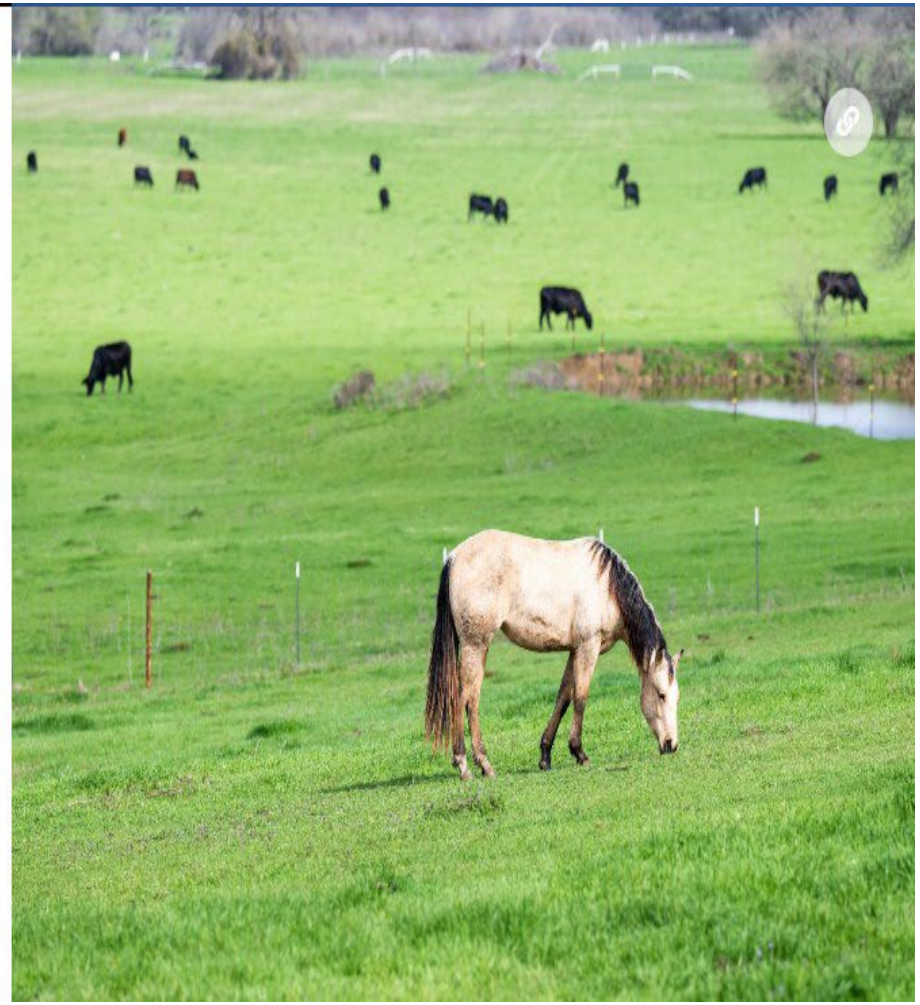
There are three compliance committees at the university: The IRB

The IACUC

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

The Institutional Animal Care and Use Committee (IACUC) reviews and oversees all research, clinical and teaching activities that involve animals. Faculty, staff and students must submit an IACUC Protocol prior to beginning any activities that involve animals.

LEARN MORE



The IBC

THE INSTITUTIONAL BIOSAFETY COMMITTEE

The Institutional Biosafety Committee (IBC) reviews and oversees all research, clinical and teaching activities involving biological agents that can affect human and environmental health. This includes approving safety and training procedures and ensuring National Institutes of Health (NIH) guidelines are followed.

LEARN MORE

Roles of the Research Integrity & Compliance

1. ***OUR CRITICAL ROLE:*** To serve our faculty and staff who are undertaking research – how can we help them meet their ethical needs & obligations?

2. To support our compliance committees in the work they do for their colleagues.

3. To offer education opportunities to campus personnel that meet their needs.

Come by and see us!

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Thank you!

Comments or Questions?