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Tools for Preventing Research Misconduct: iThenticate - Live now!

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Research Compliance
and Regulatory Affairs

Research Administration

In this presentation

- RM Management @ Emory
- Recognizing & Preventing RM
 - IThenticate
- Outcomes of Research Misconduct Investigations
- Authorship and Plagiarism
- Building a Culture of Integrity





Managing Research Misconduct @ Emory

Research Misconduct

Research Misconduct is defined as “fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.”

According to NIH ORI:

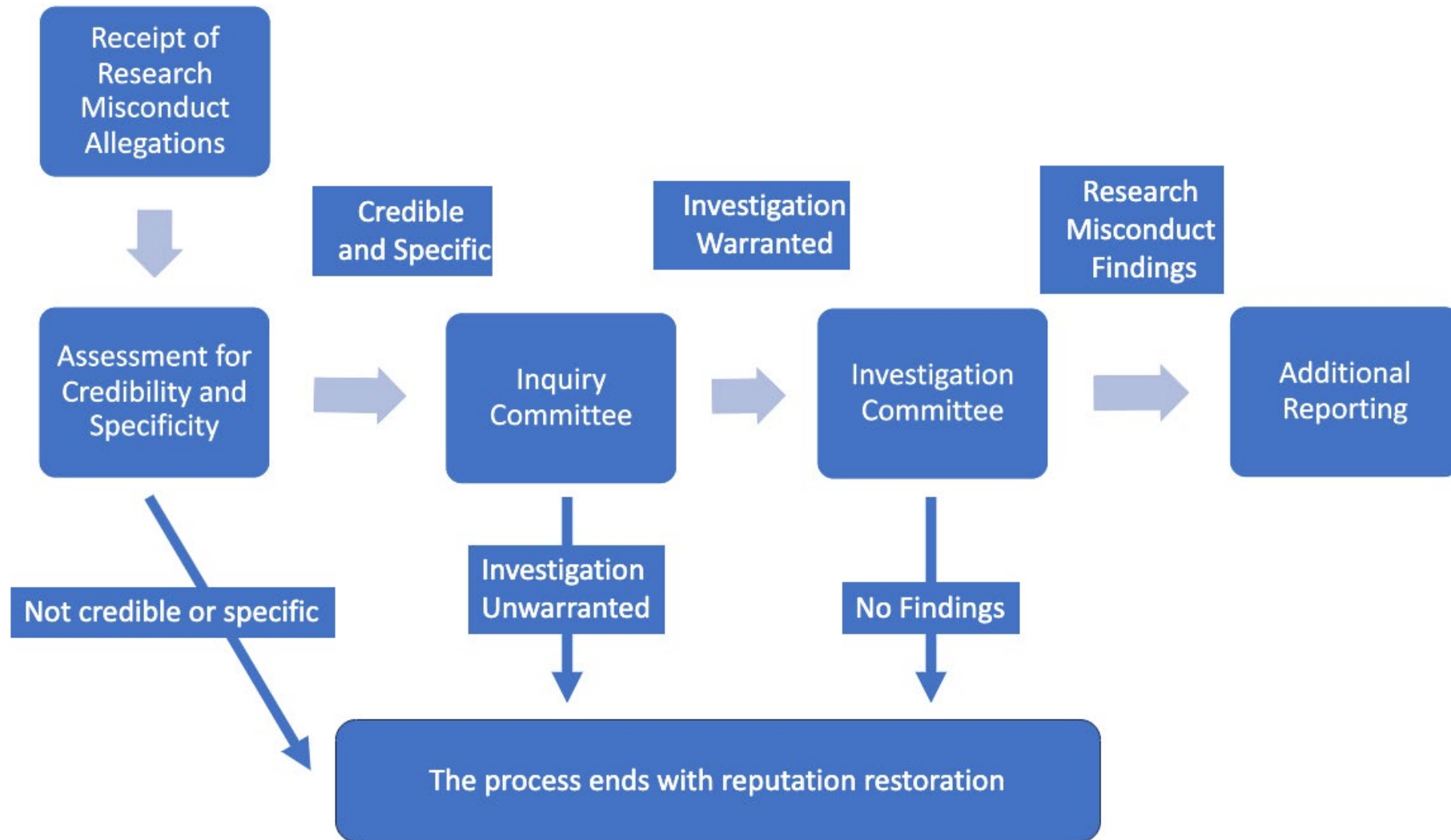
- Fabrication occurs when researchers **make up** the data used to support their findings, or the sources of information used.
- Falsification involves “**manipulating** research materials, equipment, or processes, or changing or omitting data or results such that the research is **not accurately represented** in the research record.”
- Plagiarism occurs when researchers **use the ideas**, information, processes, or results produced by others but do **not provide appropriate credit**.
- Research misconduct does not include honest error or differences of opinion.



Policy 7.8

- Policy 7.8 on Research Misconduct has been updated with information in the policy streamlined for better readability and make it more accessible
- The policy details the process of reviewing allegations
- Research Integrity Team @ Emory defined in policy





Recognizing Research Misconduct



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Time

- Usable data is only created to meet a deadline
- Research procedures are completed faster than usual



Results

- If data appears too good to be true
- Data cannot be replicated



Lack of Transparency

- Raw data does not exist or cannot be accessed
- Materials and protocols are hidden
- Research is completed when no one is around

Be Cautious!

You submit an NIH grant application not aware that the data and/or text included by others were falsified and/or plagiarized.

Are you liable for research misconduct?

YES

Decisions by an ALJ on a recent case established that a PI and/or corresponding author, can be liable for research misconduct even if he/she was completely unaware of any falsification or plagiarism.

From Research Misconduct & Detrimental Research Practices: Overview & Case Studies
at <https://grants.nih.gov/learning-center/conference/precon-events/research-misconduct>

Avoid AI Copyright & Authorship Issues

RCRA Infographic

An RCRA infographic on best practices for AI use in authorship to prevent copyright and plagiarism concerns is

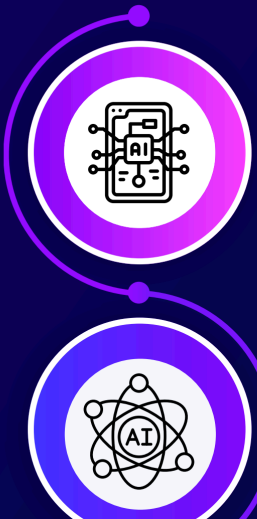
at: <https://rcra.emory.edu/includes/documents/sections/program-effectiveness/ai-authorship.pdf>

AI Publisher Disclosure Guidelines

Emory resources related to publisher statements on AI are available

at: <https://guides.libraries.emory.edu/AI/publishing>.

AI Authorship, Copyright & Plagiarism - Best Practices



ACCOUNTABILITY

AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased, so applying the AI technology should be done with human oversight and control and all work should be reviewed and edited carefully. Any section of a manuscript written by a language processing system (NLP) system should be checked by a domain expert for accuracy, bias, relevance, and reasoning.

TRANSPARENCY

Because NLP systems may be used in ways that may not be obvious to the reader, researchers should disclose their use of such systems and indicate which parts of the text were written or co-written by an NLP system.

Publisher Statements on AI

More publishers are now establishing guidelines and policies surrounding AI and its use in scholarly publishing. These policies are subject to change and adapt to new developments.

- Springer Nature, Jan 24, 2023: [Tools such as ChatGPT threaten transparent science; here are our ground rules for their use](#)
- Science, Jan. 26, 2023: [ChatGPT is fun, but not an author](#)
- JAMA Network, Jan. 31, 2023: [Nonhuman "Authors" and Implications for the Integrity of Scientific Publication and Medical Knowledge](#)
- ACS Author Guidelines, updated Feb. 7, 2023: [Authorship, Author List, and Coauthor Notification](#)
- AIP Publishing, Feb. 10, 2023: [On the Use of AI Language Models in Scholarly Communications at AIP Publishing](#)
- Taylor & Francis, Feb. 17, 2023: [Taylor & Francis Clarifies the Responsible use of AI Tools in Academic Content Creation](#)
- Emerald Publishing, Feb. 22, 2023: [Emerald Publishing's stance on AI tools and authorship](#)
- Elsevier, undated: [Publishing Ethics](#)
- Cambridge, [Cambridge University Press policy on AI-generated content](#)

Other organizations involved in scholarly communications have also issued statements and guidelines:

- Committee on Publication Ethics (COPE), Feb. 13, 2023, [Authorship and AI tools](#)
- World Association of Medical Editors (WAME), Jan. 20, 2023, [Chatbots, ChatGPT, and Scholarly Manuscripts: WAME Recommendations on ChatGPT and Chatbots in Relation to Scholarly Publications](#)



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Pre-Publication: Plagiarism Detection

iThenticate is a widely recognized plagiarism detection tool for researchers and authors to check their manuscripts to feel confident that their submission will not be at risk of rejection or damage their reputation.

iThenticate should not be used to check student coursework. [Emory's Turnitin subscription](#) integrated in Canvas is available to all classes for student use.



iThenticate

What is iThenticate?

Plagiarism detecting software used widely as a writing tool to ensure research documents such as manuscripts, grant applications follow proper citation practices

How does the tool work?

Simple and fast, takes a few minutes to upload, compare and generate a report

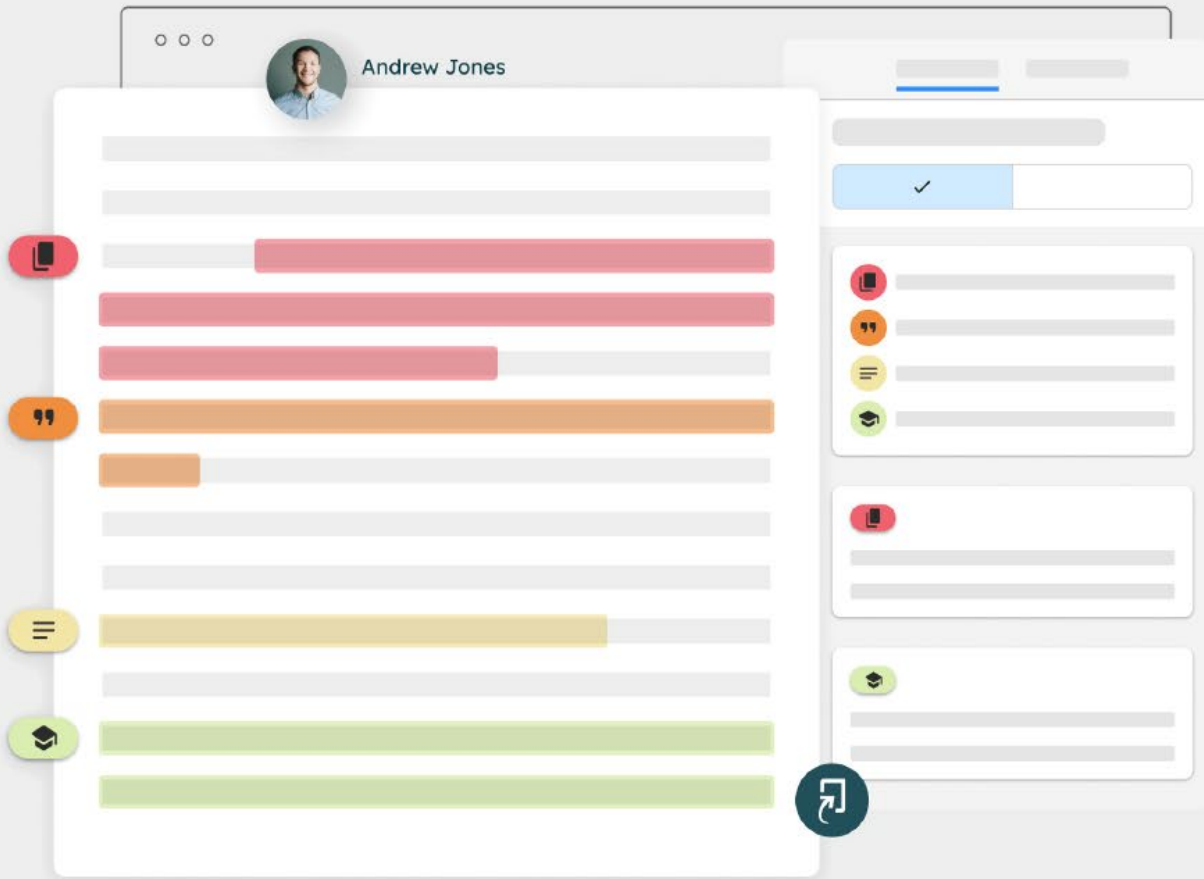
Who uses iThenticate?

Harvard, Stanford, UC Berkeley, U of Florida, UNC, Duke, MIT, Columbia, JHU, U of Chicago etc etc

Demo Link

<https://www.ithenticate.com/demo>

iThenticate Report Features



- ✔ **Compare against scholarly publications**
For the most accurate similarity results
- ✔ **Identify AI-generated content**
To protect the integrity of your high stakes content
- ✔ **See match groups & sources**
Categorised and color-coded matches providing at-a-glance insight
- ✔ **Refine options**
Automatic exclusions to help see critical matches

iThenticate Report Analysis

- x High overall similarity score
- x Verbatim copies of strings of text at sentence, paragraph or section level
- x High percentage similarity to a single source

The screenshot displays the iThenticate report interface. At the top, it shows the date and time (25-Oct-2017 10:32AM), the document statistics (5610 words, 13 matches, 3 sources), and the overall similarity score (9%). The main content area is divided into sections: Title, ABSTRACT, and INTRODUCTION. The ABSTRACT section contains a paragraph of text with several lines highlighted in red, indicating matches. The INTRODUCTION section also contains a paragraph of text with a line highlighted in red. On the right side, there is a 'Match Overview' panel showing three matches: 1. Internet (394 words, 7% similarity, www.molbiolcell.org), 2. Internet (94 words, 2% similarity, is.landesbioscience.com), and 3. Publications (6 words, <1% similarity, "Investigators at University of Virginia target molecular cell biology.", Proteomics Weekly, Jan 10 2011 Issue). At the bottom, there is a 'Primary Sources' panel showing the same three matches with their respective word counts and similarity percentages.

ArcArticle iThenticate

ORIGINALITY REPORT

9%

SIMILARITY INDEX

PRIMARY SOURCES

1	www.molbiolcell.org Internet	394 words — 7%
2	is.landesbioscience.com Internet	94 words — 2%
3	"Investigators at University of Virginia target molecular cell biology.", Proteomics Weekly, Jan 10 2011 Issue Publications	6 words — < 1%

EXCLUDE QUOTES OFF
EXCLUDE BIBLIOGRAPHY ON

EXCLUDE MATCHES OFF

How it Works?

Please note that iThenticate does NOT determine if Plagiarism has occurred; it will help you ensure that inadvertent errors are not made before publishing your scholarly work.



How to obtain an account



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Current process

- If you are a faculty member you can request an account at [Fill | Turnitin Application](#)
- After requesting it, you will receive an email with a link to set up the account.
- You have 7 days from the date you receive the link to create your account.

Plagiarism Case



Developmental geneticist Terry Magnuson resigned as vice-chancellor for research at the University of North Carolina at Chapel Hill after a federal investigation found evidence of plagiarism in one of his National Institutes of Health grant applications.

According to the [U.S. Office of Research Integrity](#), he engaged in research misconduct by intentionally, knowingly, or recklessly plagiarizing text” from two guides, material from a company that makes sequencing kits, and a [review article](#).

Outcomes of Research Misconduct Investigations



In deciding Research Misconduct, the committee needs to conclude that the RM was done knowingly, recklessly, or intentionally. Also, the committee/ORI has ruled out that the RM was an honest error



Claims that a practice is uncommon are not exempt from being substantiated as RM



Common Consequences:

- Certifications
- Assurances
- Prohibited from serving
- Debarment

Your Role: See Something, Say Something.



See Something



Say Something



Report Any
Research/Data
Integrity Concerns
to...



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Questions?



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