



**Academic conduct:  
truth in reporting and conflict of interest**



## Responsible Conduct of Research

- Researchers have an obligation to honor the trust that their colleagues place in them
- Researchers have an obligation to themselves
- Researchers have an obligation to act in ways that serve the public

By considering all these obligations—toward other researchers, toward oneself, and toward the public—a researcher should make responsible choices..



# The Treatment of Data

**Short story:** In 2002, the editors of the Journal of Cell Biology began to test the images in all accepted manuscripts to see if they had been altered in ways that violated the journal's guidelines. About a quarter of the papers had images that showed evidence of inappropriate manipulation.

Researchers who manipulate their data fail to fulfill all three of the obligations described.

- What consequences that misleading or inaccurate data might cause?
- Have you read papers with inaccurate data or results?



# Competing Interests, Commitments, and Values

Researchers have many interests, including personal, intellectual, financial, and professional interests. These interests often exist in tension; sometimes they clash.

Conflicting interests arise in many ways:

- financial interests VS academic interests
- publication record VS make field progress

Can you think of any other conflicts?

Have you met any conflicts before?



# Truth in Reporting

We should tell the truth, the whole truth and nothing but the truth.

Research is a collective action. Our work can affect and direct the efforts of the entire community. Misleading this effort can cause a lot of harm. From small to bigger we observe three types of problems

- Mistakes that slip through the cracks because of a lack of due diligence
- Fixed/Skewed results that omit these touch ups in reporting
- Direct dishonesty in either results or how they are obtained

How is this principal affecting your life? Do you think there is an inherent free rider problem with the truth principal? Does this create a conflict of interest?



# Responding to Suspected Violations of Professional Standards

Contact the person and inform that there is a suspected violation. Contact the relevant Associate Dean or Designated Academic Integrity Representative(DAIR) from your department for issues within BU.

Every school or college shall designate an Assistant or Associate Dean with responsibility for administering the procedures set forth in BU's academic Code.

Every school or college shall also designate one (1) or more faculty or staff persons as a DAIR. The DAIR does not represent any party, nor is the DAIR an arbitrator or mediator between faculty/staff and student.



# Allocating Credit | Main advice: Talk with your Advisor

How do we give credit? First author(s), co-authors or acknowledgments. Who gets which?

Golden Rule: Every involved party should know their positions upfront. Better to talk about it before than after

- Ordering of names for most fields depends on contribution. (For some it is alphabetical)
- Co-authors have to have directly contributed to the paper substantially at least in one way.
  - Problem formulation
  - Data Collection
  - Experiment design
  - Running experiments
  - Analysis of the results
  - Writing

Does the lab director gets co-authorsip on all papers? Does the student “owe” their advisor a paper?

Source: [The slides of David S. Touretzky](#)



# Allocating Credit | Main Advice: If in doubt Acknowledge

How do we give credit? First author(s), co-authors or acknowledgments. Who gets which?

- Acknowledge people who have helped you in the process.(It costs nothing and is good manners)
  - Contributed a good idea
  - Provided pointers to papers
  - Helped debug some tricky code
  - Helped with illustrations/type setting
  - Porovided some significant resource(data, money, compute)

Acknowledge your funding agency.





## Allocating Credit | Discussion

Scenario 1: You did a group project for a class. You took the idea and the code as basis and future explored it yourself, finally turning everything into a paper. The original experiments from the project are also included in the paper but you have also developed the idea and further explored the topic yourself. Should you include your group members from that class in the paper?

Scenario 2: Your advisor shared an idea she/he had (or was invited to write a paper for a journal) and you followed it up with her/his guidance(did the experiments etc.). What should the authorship be?



# Intellectual Property

Borrowing sentences without attribution is plagiarism. **Always cite sources.**

Paraphrasing isn't the solution. If you took the idea from somewhere always give what is due(CITE)

Cite other people's work freely and often. Too many citations is rarely a problem, but one missing citation can be a headache.



# Intellectual Property

Cite other's work to

- Avoid antagonizing your reviewers by failing to acknowledge their contributions.
- Demonstrate your mastery of the literature
- Make new friends
- Encourage others to cite your work in return
  - Get your work noticed



## Intellectual Property | BU Policy

Intellectual property belongs to the school if it is within work for school or has used school resources  
Books and articles, lectures, syllabi, visual materials, and other teaching materials are owned by the faculty member authoring them

Where there is disagreement between the individual and the University as to ownership rights the burden of demonstrating that intellectual property was created outside the scope of University employment and without any significant use of Boston University Resources is on the individual



# Intellectual Property

- Read the papers you are citing. Know what you are referring to.
- If you are citing a citation do it the right way

Smith:

Rat head direction cells with cosine tuning curves have been found in parietal/retrosplenial cortex (Chen, 1989).

Jones, **wrong way**:

... There is evidence for a similar mechanism in the parietal/retrosplenial cortex of rats (Chen, 1989).

Jones, **right way**:

... There is evidence for a similar mechanism in the parietal/retrosplenial cortex of rats (**Smith, 2005, citing** Chen, 1989).

Chen (1989) turns out to be an unpublished PhD thesis that Jones has never seen, and wouldn't comprehend if he had.

Source: [The slides of David S. Touretzky](#)



**Thanks!**