

# Ethics in Life Science

## Class 1: Introductions, Values and Overview of Ethics

### Learning Objectives

Students can:

- articulate the key values and conventions that they try to live by and appreciate the commonalities and differences among the group.
- compare/contrast the differences between common ethical perspectives
- make connection between individual specific values and how they align to these ethical perspectives.
- Appreciate the bases for the rules and regulations scientists are expected to adhere to and determine how they a) will likely ascribe to one of these ethical perspectives and b) how it relates back to their own personal values
- Appreciate a hierarchy of values

### Assignment:

Below are some readings that will get you thinking about the major "systems of ethics" or "ethical theories" that philosophers have argued about throughout history.

[Moral Relativism Vs. Moral Absolutism \(Links to an external site.\)](#)

[Deontology vs Utilitarianism; the Eternal Battle \(Links to an external site.\)](#)

[Philosophy and Psychology Agree, Yelling at People Who Aren't Wearing Masks Won't Work \(Links to an external site.\)](#)

1. Select five items from the list that represent your highest values. [you may substitute a different value if your favorite is not listed].
2. Select five items from the list that represent the highest values of your institution.

In both of your selections consider what these values say about your own and your institution's ethical theories.

Optional: For this and all successive class sessions, suggest one or two readings that might be important for the entire class. For each, provide a link and a sentence or two explaining your recommendation.

### Resources:

[Moral Relativism Vs. Moral Absolutism \(Links to an external site.\)](#)

[Deontology vs Utilitarianism; the Eternal Battle \(Links to an external site.\)](#)

[Philosophy and Psychology Agree, Yelling at People Who Aren't Wearing Masks Won't Work \(Links to an external site.\)](#)

Madelyn Burley-Allen, *Listening; The Forgotten Skill* A self Teaching Guide, 2<sup>nd</sup> edition 1995

Explains the importance of listening and has many exercises to improve listening skills

## **Class 2: Othering (inclusion and exclusion), Humor, Beliefs, and Biases**

### **Learning Objectives:**

Students can

- Understand humor as a tool for othering as well as for leadership and community building
- Understand tools for being an upstander
- Consider how othering supports or undermines feelings of belonging
- Identify ways that our daily behaviors contribute to or are examples of othering
- Consider how confirmation bias can mislead us

### **Assignment:**

Read: Please read either [1] or [2] on "Othering" and please read [3] on "Humor in the Workplace".

### **Othering**

[1] The Problem of Othering: Towards Inclusiveness and Belonging  
<http://www.otheringandbelonging.org/the-problem-of-othering/> (Links to an external site.)

[2] Us vs them: the sinister techniques of 'Othering' – and how to avoid them  
<https://www.theguardian.com/inequality/2017/nov/08/us-vs-them-the-sinister-techniques-of-othering-and-how-to-avoid-them> (Links to an external site.)

### **Humor in the Workplace**

(Links to an external site.) [3] Sarcasm, Self-Deprecation, and Inside Jokes: A User's Guide to Humor at Work  
[https://www.hbs.edu/faculty/Publication%20Files/Sarcasm,%20Self-Deprecation,%20and%20Inside%20Jokes%20A%20User's%20Guide%20to%20Humor%20at%20Work\\_e970f8bd-679a-4a66-a431-ee2fde0e24bc.pdf](https://www.hbs.edu/faculty/Publication%20Files/Sarcasm,%20Self-Deprecation,%20and%20Inside%20Jokes%20A%20User's%20Guide%20to%20Humor%20at%20Work_e970f8bd-679a-4a66-a431-ee2fde0e24bc.pdf) (Links to an external site.)

Write:

1. **Othering:** Prepare a list of ways that people from non-majority groups might be welcomed into our lab or department.

2. **Humor:**

A) Watch this short clip from the Big Bang Theory. <https://www.youtube.com/watch?v=VK->

[b1CtIAw&list=RD0TSht3i7wgA&index=15](#) (Links to an external site.) Notice in the clip how insults were delivered through humor. Have you ever felt or witnessed humor as a put down in your own life? Please provide that story here. If you would prefer not to share a real-life example, then please come up with a plausible fictitious one.

B) We would like to discuss your scenarios in class. Please answer "YES" or "NO" to the following question: May we share this story anonymously in class?

**3. Your recommendation? (optional):** If you can think of a book or article on othering, bias, inequities, etc. that should be on everyone's reading list, please put it here.

## Resources:

### Reading Material from Assignment

[1] The Problem of Othering: Towards Inclusiveness and Belonging  
<http://www.otheringandbelonging.org/the-problem-of-othering/> (Links to an external site.)

[2] Us vs them: the sinister techniques of 'Othering' – and how to avoid them  
<https://www.theguardian.com/inequality/2017/nov/08/us-vs-them-the-sinister-techniques-of-othering-and-how-to-avoid-them> (Links to an external site.)  
(Links to an external site.) [3] Sarcasm, Self-Deprecation, and Inside Jokes: A User's Guide to Humor at Work  
[https://www.hbs.edu/faculty/Publication%20Files/Sarcasm,%20Self-Deprecation,%20and%20Inside%20Jokes%20A%20User's%20Guide%20to%20Humor%20at%20Work\\_e970f8bd-679a-4a66-a431-ee2fde0e24bc.pdf](https://www.hbs.edu/faculty/Publication%20Files/Sarcasm,%20Self-Deprecation,%20and%20Inside%20Jokes%20A%20User's%20Guide%20to%20Humor%20at%20Work_e970f8bd-679a-4a66-a431-ee2fde0e24bc.pdf) (Links to an external site.)

### Addition Reading Material

[4] Can Humor Hurt?  
<https://pro.psychcentral.com/can-humor-hurt/> (Links to an external site.)

[5] Teasing  
<http://www.bettyphillipspsychology.com/id74.html> (Links to an external site.)

[6] When Humor Hurts  
<https://medium.com/thrive-global/when-humor-hurts-9eec91e0530> (Links to an external site.)

[7] How to Respond to the 'Just Kidding' excuse  
<https://herviewfromhome.com/how-to-respond-to-the-just-kidding-excuse/> (Links to an external site.)

[8] What Is Your Responsibility as a Bystander to a Colleague Having Problems?  
<https://app.box.com/file/515967791108> (Links to an external site.)

[9] Hands-on guide to strategies, approaches, and interventions to address social injustice comments  
<https://wie.engineering.illinois.edu/files/2018/10/responding-to-microaggressions-and-bias.pdf> (Links to an external site.)

[10] Cultural Differences in Humor Perception, Usage, and Implications  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6361813/> (Links to an external site.)

[11] Why teasing is the Lowest Form of Humor  
<https://www.theodysseyonline.com/why-teasing-is-the-lowest-form-of-humor> (Links to an external site.)

[12] Responses to Racist Comments  
[https://education.up.edu/files/2018\\_interruptions.pdf](https://education.up.edu/files/2018_interruptions.pdf) (Links to an external site.)

[13] Essay on Racist Humor  
[https://www.researchgate.net/publication/277021474\\_Racist\\_Humor/link/5a9ce1a90f7e9be3796825cc/download](https://www.researchgate.net/publication/277021474_Racist_Humor/link/5a9ce1a90f7e9be3796825cc/download) (Links to an external site.)

[14] Examples of Bullying, Harassment, Discrimination, and Victimization  
<https://www.sheffield.ac.uk/hr/guidance/eamp/dignityatwork/examples> (Links to an external site.)

#### Campus Resources:

[1] Report a Concern  
<https://investigations.uoregon.edu/>Links to an external site.

[2] Employee Responsibility:  
<https://investigations.uoregon.edu/employee-responsibilities>Links to an external site.

[3] Employee Training  
<https://investigations.uoregon.edu/employee-training>Links to an external site.

### **Class 3: Scientific Excellence**

#### **Learning Objectives:**

Students can

- Articulate views and values that describe scientific excellence and how the ideas are shaped by culture, race, religion, gender, religion, economics, politics
- Identify how different perspectives and priorities contribute to criteria for excellence
- Consider how concept of excellence will affect who is in the profession and how well they will be supported
- Identify ways that our daily behaviors contribute to messaging on what we consider excellent and worthy of support and how this messaging might affect BIPOC communities differentially.
- Reflect upon what sorts of research gets funded or published and what kind of science is seen as valued?

## Assignment:

Please look through the resources pages in this modules and choose 3-4 to read. Then answer the following:

### Assignment:

1. Prepare a short list of criteria that you would want included in any assessment of whether your research could be considered excellent.
2. What defines an excellent career? Prepare a short list of accomplishments you hope to achieve by the time you retire.

## Resources:

- [1] Science needs to redefine excellence  
<https://www.nature.com/articles/d41586-018-02183-y> (Links to an external site.)
- [2] Point of View Effects How Science is Done  
<https://www.scientificamerican.com/article/point-of-view-affects-how-science-is-done/> (Links to an external site.)
- [3] Diversity in Science; Why it is Essential for Excellence  
<https://www.scientificamerican.com/article/diversity-in-science-why-it-is-essential-for-excellence/> (Links to an external site.)
- [4] A link to a series of articles on diversity in science:  
<https://www.scientificamerican.com/report/how-diversity-empowers-science-and-innovation/> (Links to an external site.)
- [5] The NIH agenda for women's health (1993)  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568152/?page=1> (Links to an external site.)
- [6] The Problem of Colonial Science  
<https://www.scientificamerican.com/article/the-problem-of-colonial-science/> (Links to an external site.)
- [7] Unintended Biases  
[https://sfdora.org/wp-content/uploads/2020/09/DORA\\_UnintendedCognitiveSystemBiases.pdf](https://sfdora.org/wp-content/uploads/2020/09/DORA_UnintendedCognitiveSystemBiases.pdf)
- [8] The Influence of Affirming Kindness and Community on Broadening Participation in STEM Career Pathways  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5898245/> (Links to an external site.)
- [9] Meaning of Excellence and Excellence in research  
<https://ktwop.files.wordpress.com/2014/02/walloe-on-exellence.pdf> (Links to an external site.)
- [10] Women have Disrupted Research on Bird Song and their Findings Show How Diversity can Improve all Fields of Science

[https://theconversation.com/women-have-disrupted-research-on-bird-song-and-their-findings-show-how-diversity-can-improve-all-fields-of-science-142874?utm\\_medium=email&utm\\_campaign=Latest%20from%20The%20Conversation%20for%20September%2011%202020%20-%201729116709&utm\\_content=Latest%20from%20The%20Conversation%20for%20September%2011%202020%20-](https://theconversation.com/women-have-disrupted-research-on-bird-song-and-their-findings-show-how-diversity-can-improve-all-fields-of-science-142874?utm_medium=email&utm_campaign=Latest%20from%20The%20Conversation%20for%20September%2011%202020%20-%201729116709&utm_content=Latest%20from%20The%20Conversation%20for%20September%2011%202020%20-) (Links to an external site.)

[11] Discouraged by Peer Excellence: Exposure of Exemplary Peer Performance Causes Quitting

[https://scholar.harvard.edu/files/todd\\_rogers/files/discouraged\\_by\\_peer\\_excellence\\_2016.pdf](https://scholar.harvard.edu/files/todd_rogers/files/discouraged_by_peer_excellence_2016.pdf) (Links to an external site.)

[12] We Strive For Excellence

<https://prizmah.org/when-we-strive-excellence-what-do-we-lose> (Links to an external site.)

[13] A Bad Fit?

[https://www.insidehighered.com/news/2020/07/14/study-concept-faculty-fit-hiring-vague-and-potentially-detrimental-diversity-efforts?utm\\_source=Inside+Higher+Ed&utm\\_campaign=4c95c1fd20-DNU\\_2020\\_COPY\\_02&utm\\_medium=email&utm\\_term=0\\_1fcbc04421-4c95c1fd20-197662925&mc\\_cid=4c95c1fd20&mc\\_eid=f244bbd82f](https://www.insidehighered.com/news/2020/07/14/study-concept-faculty-fit-hiring-vague-and-potentially-detrimental-diversity-efforts?utm_source=Inside+Higher+Ed&utm_campaign=4c95c1fd20-DNU_2020_COPY_02&utm_medium=email&utm_term=0_1fcbc04421-4c95c1fd20-197662925&mc_cid=4c95c1fd20&mc_eid=f244bbd82f) (Links to an external site.)

[14] Big Science has a Buzzword Problem

<https://www.nature.com/news/big-science-has-a-buzzword-problem-1.21354> (Links to an external site.)

## **Class 4: Research Misconduct**

### **Learning Objectives:**

- To identify research misconduct, specifically fabrication, falsification, and plagiarism
- To understand why and how scientists find themselves committing research misconduct (the slippery slope)
- To know your responsibility for reporting research misconduct and the steps involved if you observe it; learn how whistleblowers are protected.
- To understand the procedure for how University of Oregon proceeds with allegations of research misconduct
- To understand the consequences of research misconduct on your career
- To explore means to prevent misconduct and promote professional and responsible culture of research practice

## Assignment:

The Office of Research Integrity (ORI) is a federal agency that, like their name sounds, is focused on research integrity for all Public Health Services (PHS) such as Center for Disease Control (CDC), Food and Drug Administration (FDA), the National Institute of Health (NIH) and several others.

The ORI developed an interactive movie called "The Lab" that takes a look at how you might find yourself in a position witnessing research misconduct and what you should do along the way.

Please watch/interact with the following movie: <http://ori.hhs.gov/thelab> (Links to an external site.) (Links to an external site.).

### Questions to Address:

1. Which character did you select for this exercise?
2. What do you feel was the most difficult conflict this person faced?
3. What was an example of a scenario in the video when you personally felt uncertain about the right thing to do?
4. Optional. Write your own brief fictional case study, a 2 minute challenge, involving a conflict of research integrity.

### Resources:

[1] Report Allegations of Misconduct at UO  
<https://research.uoregon.edu/manage/research-integrity-compliance/allegations-research-misconduct>

[2] [Guidelines and Policies for Conduct of Research- NIH](#)

## Class 5: Human Subject Research

### Learning Objectives:

- Explore rationale for research using human subjects
- Understand the policies regulating the use of human subjects in research, and explore why these are crucial to conducting an ethical research program.
- Explore ethical dilemmas in human experimentation
- Consider the ethical responsibilities scientists have to minorities, to the poor, to the sick, to children, and to people of disabilities.

### Assignment:

Please respond to the case study.

*You have started a pilot study of the possible relationship between Neanderthal genes and tissue susceptibility to certain SARS viruses, following up on what may be a coincidental association you have observed. Your 50 samples from volunteers are all deidentified. Though unintended, your algorithm also found sequence in one of the samples indicative of Huntington's disease. What do you do? What ethical issues arise with this new dilemma?*

## Resources

[1] Genome Editing Revolution; My Whirlwind Year with CRISPR

[https://www.nature.com/news/genome-editing-revolution-my-whirlwind-year-with-crispr-1.19063?utm\\_source=Nature+Briefing&utm\\_campaign=458284e180-briefing-dy-20201009&utm\\_medium=email&utm\\_term=0\\_c9dfd39373-458284e180-44208409](https://www.nature.com/news/genome-editing-revolution-my-whirlwind-year-with-crispr-1.19063?utm_source=Nature+Briefing&utm_campaign=458284e180-briefing-dy-20201009&utm_medium=email&utm_term=0_c9dfd39373-458284e180-44208409)

[2] Beecher Ethics and Clinical Research

[https://www.observatoribioetica.org/wp-content/uploads/2016/09/Beecher\\_Ethics\\_and\\_Clinical\\_Research\\_1966.pdf](https://www.observatoribioetica.org/wp-content/uploads/2016/09/Beecher_Ethics_and_Clinical_Research_1966.pdf)

[3] The Immortal Life of Henrietta Lacks (A review of the book)

[https://www.researchgate.net/publication/275036914\\_The\\_Immortal\\_Life\\_of\\_Henrietta\\_Lacks](https://www.researchgate.net/publication/275036914_The_Immortal_Life_of_Henrietta_Lacks)

[4] Don't Ignore Genetic Data from Minorities

[https://www.nature.com/articles/d41586-020-02547-3?utm\\_source=Nature+Briefing&utm\\_campaign=44f6a8b6bc-briefing-dy-20200911&utm\\_medium=email&utm\\_term=0\\_c9dfd39373-44f6a8b6bc-44208409](https://www.nature.com/articles/d41586-020-02547-3?utm_source=Nature+Briefing&utm_campaign=44f6a8b6bc-briefing-dy-20200911&utm_medium=email&utm_term=0_c9dfd39373-44f6a8b6bc-44208409)

[5] Human tissue removed for medical tests is 'personal property' of institution, not person it came from: ruling

<https://nationalpost.com/news/canada/human-tissue-removed-for-medical-tests-is-personal-property-of-institution-not-person-it-came-from-ruling>

[6] The Privacy Debate Over Research With Your Blood and Tissue

<https://theconversation.com/the-privacy-debate-over-research-with-your-blood-and-tissue-71523>

[7] Chapter 9: History of Prison Research Regulation

[https://bioethicsarchive.georgetown.edu/achre/final/chap9\\_4.html](https://bioethicsarchive.georgetown.edu/achre/final/chap9_4.html)

[8] Critical Considerations for Reviewing AIAN research

[https://dpcpsi.nih.gov/sites/default/files/Critical\\_Considerations\\_for\\_Reviewing\\_AIAN\\_Research\\_508.pdf](https://dpcpsi.nih.gov/sites/default/files/Critical_Considerations_for_Reviewing_AIAN_Research_508.pdf)



[9] Belmont Report

[https://en.wikipedia.org/wiki/Belmont\\_Report](https://en.wikipedia.org/wiki/Belmont_Report)

[10] The Little Known History of the Forced Sterilization of Native American Women

<https://daily.jstor.org/the-little-known-history-of-the-forced-sterilization-of-native-american-women/>

[11] Sterilization of Native American Women

[https://en.wikipedia.org/wiki/Sterilization\\_of\\_Native\\_American\\_women](https://en.wikipedia.org/wiki/Sterilization_of_Native_American_women)

[12] Constructing identities: the implications of DTC ancestry testing for tribal communities

<https://dpcpsi.nih.gov/sites/default/files/dpcpsi/document/Constructing%20identities-%20the%20implications%20of%20DTC%20ancestry%20testing%20for%20tribal%20communities.pdf>

[13] Beyond Belmont: Ensuring Respect for AI/AN Communities Through Tribal IRBs, Laws, and Policies

<https://dpcpsi.nih.gov/sites/default/files/Beyond%20Belmont%20Ensuring%20Respect%20for%20AI%20AN%20Communities%20Through%20Tribal%20IRBs%20Laws%20and%20Policies.pdf>

[14] U.S. Public Health Service Syphilis Study at Tuskegee

<https://www.cdc.gov/tuskegee/index.html>

[15] What is a Human Challenge Trial and How Does it Expedite Vaccine Development?

<https://acrnet.org/2020/05/12/what-is-a-human-challenge-trial-and-how-does-it-expedite-vaccine-development/>[15]

[16] Opinion: For now, it's unethical to use human challenge studies for SARS-CoV-2 vaccine development

<https://www.pnas.org/content/early/2020/10/27/2021189117>

## **Class 6: Animal Subject Research**

### **Learning Objectives:**

- Explore rationale for research using animal subjects
- Understand the policies regulating the use of animal subjects in research

- Explore the ethical and moral reasons for these policies
- Explore ethical dilemmas in animal experimentation.

### **Assignment:**

For next year: Supply students with case studies of Montes' so we can discuss them at the end of his talk

### **Resources:**

NIH Office of Laboratory Animal Welfare (OLAW):

<http://grants.nih.gov/grants/olaw/olaw.htm> (Links to an external site.)  
(Links to an external site.)

US Government Principles

<http://grants.nih.gov/grants/olaw/references/phspol.htm#USGovPrinciples> (Links to an external site.)

(Links to an external site.)

The PHS Policy on Humane Care and Use of Laboratory Animals

<http://grants.nih.gov/grants/olaw/references/phspol.htm> (Links to an external site.)

(Links to an external site.)

The Guide for the Care and Use of Laboratory Animals

[http://www.nap.edu/catalog.php?record\\_id=12910](http://www.nap.edu/catalog.php?record_id=12910) (Links to an external site.)

USDA: The Animal Welfare Act (AWA), regulations and policy manual

[http://www.aphis.usda.gov/animal\\_welfare/awa\\_info.shtml](http://www.aphis.usda.gov/animal_welfare/awa_info.shtml) (Links to an external site.)  
(Links to an external site.)

(Links to an external

site.)[http://www.aphis.usda.gov/animal\\_welfare/downloads/awa/awa.pdf](http://www.aphis.usda.gov/animal_welfare/downloads/awa/awa.pdf) (Links to an external site.)

(Links to an external

site.)[http://www.aphis.usda.gov/animal\\_welfare/downloads/Animal%20Care%20Blue%20Book%20-%202013%20-%20FINAL.pdf](http://www.aphis.usda.gov/animal_welfare/downloads/Animal%20Care%20Blue%20Book%20-%202013%20-%20FINAL.pdf)

## **Class 7: Experimental Design and Data Presentation**

### **Learning Objectives:**

- Examine appropriate ways of presenting image and numerical data
- Understand how to avoid verification bias and experimental bias
- Differentiate appropriate from inappropriate uses of Photoshop in data presentation
- Discuss inappropriate use of statistics (like p-hacking, dropping outliers)

## Assignment:

### Reading Assignment

- Do you collect microscopy images or run gels? Then be sure to read "What's in a picture. The temptation of Image Manipulation" found in this module. This paper, put out by JCB, lays out the do's and don'ts.
- Do you use or plan to use statistics in your analysis? Then be sure to read one of the two articles in this module on statistics.

### Writing Assignment

- Using your research as an example, imagine you are mentoring an incoming student in your lab. Identify at least one place in your data collection or analysis where, if not thought through properly, another person collecting or interpreting the same data as you, could miss something that would bias those results. What precautions have you learned to take?
- You will be divided into breakout rooms to share what you have come up with. We will then reconvene as a class and discuss the main ways in which scientists have to think about avoiding bias. The goal of this activity is to get ideas from one another about how to over-come obstacles in data interpretation.
- Please upload this as a word document and be sure to include a piece of your data in some form (microscopy image, a graph, table, statistical analysis etc...) so that the rest of the group can follow along. Please let me know if you have a reason for not wanting to share your data.
- Deadline is noon on Wednesday so I have a chance organize before class.

## Resources:

[1] What's in a picture? The temptation of image manipulation

<https://rupress.org/jcb/article/166/1/11/34064/What-s-in-a-picture-The-temptation-of-image>

[2] Science Forum: Ten common statistical mistakes to watch out for when writing or reviewing a manuscript

<https://elifesciences.org/articles/48175>

[3] The misuse and abuse of statistics in biomedical research

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4401313/>

[4] Experimental Design Conditions

[https://hbctraining.github.io/rnaseq-cb321/lessons/experimental\\_planning\\_considerations.html](https://hbctraining.github.io/rnaseq-cb321/lessons/experimental_planning_considerations.html) (Links to an external site.)

[5} Outliers: To Drop or Not to Drop

<https://www.theanalysisfactor.com/outliers-to-drop-or-not-to-drop/>

## **Class 8: Data Management**

### **Learning Objectives:**

- Know what makes a good lab notebook and the essential components they should contain for the kind/s of notebook you may keep (written or electronic)
- Understand the importance of proper data management and integrity for research
- Examine professional standards of data management, data retention, sharing, ownership, documentation, storage

### **Assignment:**

#### Reading Assignment:

Please read the NIH guidelines found in this module that lay out their expectations for written and electronic notebooks.

#### Assignment:

A. Go to your lab notebook and look through it. Answer here "yes," "no," or "some" to each of these questions below on this lab notebook checklist below. Don't worry, I won't judge! This is more an opportunity to self-reflect.

B. For those points you answered "Some" or "No," is there a reason why not? Are you running into any complications with the way you manage your data? If so, please articulate your question here. We may be able to get your questions answered.

C. Data management issues aren't always easy to tackle and keeping records comes with organizational challenges. In breakout rooms this week we will be doing another brainstorming and sharing of ideas. Upload a section from either your written notebook (a scanned pdf) or a link to your electronic notebook of a page/s you feel particularly proud of and explain why. Maybe you have a system for filing and linking movie data to your notebook? Maybe it's the general readability of it? Whatever it is, please provide it here and be ready to share it in breakout rooms this week. This will be a good opportunity for your fellow students to get ideas, learn and be inspired!

### **Resources:**

#### NIH Guidelines

Guidelines for SCIENTIFIC RECORD KEEPING in the Intramural Research Program at the NIH

<https://canvas.uoregon.edu/courses/162946/modules/items/2725084>

### Campus Help:

Data Services on campus can help you with your data questions and needs.

Website: <https://library.uoregon.edu/data-services>

### Contact:

- <https://library.uoregon.edu/data-services/contact>
- [dataservices@uoregon.edu](mailto:dataservices@uoregon.edu)

### Consult:

- <https://library.uoregon.edu/research-data-management/consultations>

### Train:

- <https://library.uoregon.edu/research-data-management/training-workshops>

### Supplemental Reading

[1] “[T]he data and findings...are unreliable.” Authors explain how a refutation came to be published in the same journal as the original

<https://retractionwatch.com/2018/07/24/the-data-and-findings-are-unreliable-authors-explain-how-a-refutation-came-to-be-published-in-the-same-journal-as-the-original/#more-68925>

[2] A top Cornell food researcher has had 15 studies retracted. That’s a lot.

<https://www.vox.com/science-and-health/2018/9/19/17879102/brian-wansink-cornell-food-brand-lab-retractions-jama>

[3]. Goodman, A. et al., 2014. Ten Simple Rules for the Care and Feeding of Scientific Data P. E. Bourne, ed. PLoS Computational Biology, 10(4), p.e1003542. Available at:

<http://dx.plos.org/10.1371/journal.pcbi.1003542>

## **Class 9: Publication Process**

### **Learning Objectives:**

- Explore the responsibilities of authors, reviewers and editors during the publication process.
- Discuss criteria of authorship
- Discuss benefits and potential problems of BioRxiv
- Discuss rewards and possible conflicts with collaborative science

### **Assignment:**

On Wednesday, we will be discussing the variety of ethical concerns that come up during the publication process. The Council of Scientific Editors helps to ensure the integrity of the publication process. They have a detailed description of what the role and responsibilities are of all members involved and the guidelines for dealing with conflict of interest, honest mistakes, as well as outright misconduct.

If your last name begins with a A-E bullet point the editors' responsibilities laid out in 2.2. If your name begins with an F-Q then bullet point the responsibilities of the authors in 2.1, and lastly if your name begins with R-Z, bullet point the responsibilities of the reviewers as discussed in 2.3.

<http://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-on-publication-ethics/>

## **Class 10**

### **Assignment:**

**Create a Short Case Study, a 2 Minute Challenge, on the Topic of “Lab Culture”**

For our final class, we ask that you develop and write a 2 Minute Challenge that describes a scenario that could take place in the lab setting and that deals with professional behavior. Your goal is to find a situation that is “gray” in nature, that can be seen from different perspectives, and to include prompt questions in your scenario that we can discuss as a class. Our goal as a class is to facilitate a safe environment where we can discuss substantive issues even if they are of a sensitive nature. We would like to use a number of your 2 Minute Challenges as prompts for class discussion.

Professional behavior in the lab is a broad topic (see ideas below). We believe that you will benefit more if your 2 minute challenge leaves room for multiple points of view and is not too closely aligned to your own identity. You are welcome to work with one or more partners.

See the 2-minute study challenge and framework here as an example. [https://ethicscenter.web.illinois.edu/wp-content/uploads/2018/01/data\\_2MC\\_smoking\\_gun.pdf](https://ethicscenter.web.illinois.edu/wp-content/uploads/2018/01/data_2MC_smoking_gun.pdf) (Links to an external site.)

### **Ideas of Situations or Professional Behaviors that Affect the Lab Environment**

- Going out for drinks during the day, and returning to lab
- Different views of Work-life balance and expectations of number of hours spent in lab

- Culturally nuanced communication in group meetings or one-on-one (interruptions, afraid to speak, dismissal of ideas)
- Mentor or other students' handling of mistakes made by a member of the group.
- In-group humor or cultural appropriation
- How identities like gender, gender identity, race and different cultural background, influence communication styles and can be misinterpreted.
- How religious objections to various theories, to human or animal testing, to working on particular days might influence experiments or lab cohesion.
- How accusations of privilege or cultural insensitivity can influence the lab environment.
- How excellence is affected by diversity and inclusion
- Affect of odors, such as perfume or body odors, on close lab environment.

**Consent and Anonymity:** I would like to copy and paste your case studies to a separate file and include them in the powerpoint WITHOUT your name on them. If you would elect that your case study is NOT used in this or in future classes please let me know. Please choose a following option and include it at the end of your paragraph.

- A) I am okay with my case study being used anonymously in this class and in future classes.  
 B) I do not wish for my case study to be used anonymously in this class or in future classes.

**Due at 12:00 pm next Wednesday** to give me time to assemble the case studies.

## **Resources:**

HHMI workplace policies: <https://hhmicdn.blob.core.windows.net/policies/Workplace-Behavior>

### **Campus Help:**

Student Conflict Resolution: <https://scrc.uoregon.edu/Links to an external site.>

Bias Response Team: <https://dos.uoregon.edu/biasLinks to an external site.>

Office of Investigations and Civil Rights

Compliance: <https://investigations.uoregon.edu/employee-responsibilitiesLinks to an external site.>