

Current Topics and Best Practices in Research Ethics

UCSF Winter/Spring 2025 RCR for Basic Sciences Postdocs

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Basic Course Information

Session	Topic	Lecture	Breakout Room Discussion
1	Rigor and Reproducibility in Research: Are We in Crisis?	Wed, Jan 15, 2025 2:30 pm - 3:30 pm Byers Auditorium Mission Bay	Wed, Jan 15, 2025 3:40 pm - 4:45 pm Genentech Hall Classrooms Mission Bay
2	Research - Misconduct and Social Responsibility	Wed, Jan 22, 2025 2:30 pm - 3:30 pm Byers Auditorium Mission Bay	Wed, Jan 22, 2025 3:40 pm - 4:45 pm Genentech Hall Classrooms Mission Bay
3	Responsible Data Management	Wed, Jan 29, 2025 2:30 pm - 3:30 pm Byers Auditorium Mission Bay	Wed, Jan 29, 2025 3:40 pm - 4:45 pm Genentech Hall Classrooms Mission Bay
4	Human Subjects Research and Laboratory Animals	Wed, Feb 5, 2025 2:30 pm - 3:30 pm Byers Auditorium Mission Bay	Wed, Feb 5, 2025 3:40 pm - 4:45 pm Genentech Hall Classrooms Mission Bay
5	Authorship, Publication, and Peer Review	Wed, Feb 12, 2025 2:30 pm - 3:30 pm Byers Auditorium Mission Bay	Wed, Feb 12, 2025 3:40 pm - 4:45 pm Genentech Hall Classrooms Mission Bay
6	Racism in Science	Wed, Feb 19, 2025 2:30 pm - 3:30 pm Zoom	Wed, Feb 19, 2025 3:40 pm - 4:45 pm Zoom
7	Ethical Behavior in Mentoring Research Trainees	Wed, Feb 26, 2025 2:30 pm - 3:30 pm Zoom	Wed, Feb 26, 2025 3:40 pm - 4:45 pm Zoom
8	UCSF Postdoc Trainee Ethics and Compliance Conflicts of Interest	Wed, Mar 5, 2025 2:30 pm - 3:30 pm Zoom	Wed, Mar 5, 2025 3:40 pm - 4:45 pm Zoom

***Faculty Facilitated In-Person and Zoom Discussion Sections**

Each postdoc/student will be assigned a faculty facilitator for the session.

Postdocs/students will be notified of which faculty facilitator group to join and receive the room assignment or Zoom link for their discussion sections at least a week prior to when the section is held. Postdocs/students are strongly encouraged not to have laptops open doing other assigned work during live sessions and to keep video cameras on throughout Zoom sessions during discussion groups out of respect for peers and faculty speaker/facilitators.

Instructional Team

Faculty Advisor & Faculty Lecturers

Jason Cyster, PhD, Faculty Advisor
Lecturers UCSF Faculty

Jason.Cyster@ucsf.edu
E-mail: [individual faculty members](#)

UCSF Program Director

Chequeta D. Allen, EdD Assistant Dean, Office for Postdoctoral Scholars
E-mail: Chequeta.Allen@ucsf.edu

UCSF Faculty Lecturers

Suzanne Dufault, PhD	Suzanne.Dufault@ucsf.edu
Jayanta Debnath, PhD	Jayanta.Debnath@ucsf.edu
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Faculty Discussion Section Leaders

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Aparna Lakkaraju, PhD	Aparna.Lakkaraju@ucsf.edu
Julie Saba, MD, PhD	Julie.Saba@ucsf.edu

Required Materials

Pre-Reading and Course content in the UCSF CLE for access in advance of each lecture and breakout discussion group.

Attendance and engagement are required and will be monitored. Attendance in all lectures and breakouts is required and participation in in-class activities is expected to be 75% or higher. Postdocs/students are required to be respectful to peers and faculty in expressing their in-class or online views and comments in response to questions and topics posed. Postdocs and students are required to complete assigned readings in advance before each lecture. Postdocs and students are required to participate in any Zoom lectures or breakout discussion groups with cameras on and focused on session content. If a scheduled lecture or breakout discussion group is missed for any reason such as an emergency or failure to plan, the postdoc or student should speak to the Assistant Dean about whether a make-up session is permitted to continue in the course.

Course Description

The purpose of this course is to ensure that postdoctoral research trainees are well versed with respect to training in responsible conduct of research (RCR). Attendees also gain an understanding of federal, state, and UCSF policies and resources available to further support their research endeavors.

Methods of Instruction:

- Course meetings include lectures, case studies, and group discussions.
- Discussion section meetings include case studies and interactive group discussions in smaller groups based on prompts provided by each faculty lecturer.

Learning Outcomes

In this course, you will:

- Learn and share best practices for promoting rigor and reproducibility in research, authorship, and publication, racism in science, and optimal behaviors in mentorship through varied peer engagement activities.
- Discover and practice recommended strategies for promoting diverse and inclusive research communities free of racism, microaggressions, and non-inclusive behaviors.
- Discuss and analyze current ethical research topics surrounding human subjects and animals.
- Review current data management tools and learn best practices for data management along with an understanding of new federal data sharing requirements.
- Learn to identify potential conflicts of interest and how to report and manage them.
- Become familiar with important concepts and reporting requirements for research security, including export controls, dual-use research, foreign influence, and data security on shared drives and devices.
- Employ strategies to avoid authorship disputes and questionable publication practices.
- Understand the importance of peer review and generate responsible peer reviews.

Evaluation of student performance

- Please Plan Ahead. Attendance is required for 100% of live and Zoom sessions, to receive credit for the course. Partial credit for sessions attended to carry over into the 2026 course will NOT be permitted with no exceptions.
- Attendance will be taken during each lecture and discussion section. Postdocs and students should plan to be involved with coursework from 2:30 p.m. until 4:45 p.m.
- If you have not attended 100% of the in-person lectures AND 100% of the breakout sessions or been excused due to an emergency, per course requirements, your final course grade will be FAIL and you will need to repeat the course when it is offered again.

Absence Policy

- If you miss a lecture or breakout session for an emergency purpose (i.e. individual or family health or illness), you will still be required to make up the lecture and submit a completed assignment (summary of lecture or summary of breakout discussion). However, you no longer need to submit documentation of the proof of illness to the instructor. You must first notify OPS for attendance purposes and report to OPS emergencies related to Covid-19 for safety concerns and advise if your emergency will involve an extended circumstance.
- Unrelated to illness, if you miss a lecture or a breakout, you will need to repeat the course at a later date.
- If you are experiencing a COVID-19 illness or related symptoms from Covid-19, and therefore need to quarantine, please stay at home. Let the course instructor AND OPS know via email as soon as possible. We will work with you on the course completion with documentation.

Lecture Topics & Speakers Schedule

Session 1: Rigor and Reproducibility in Research: Are We in Crisis? (60 min)

Suzanne Dufault, PhD, Assistant Professor, Department of Epidemiology and Biostatistics |
Phone: (415) 476-2300 | Email: Suzanne.Dufault@ucsf.edu | <https://suzanne-dufault-phd.netlify.app/>

Jayanta Debnath, PhD, Distinguished Professor and Chair Department of Pathology
Phone: (415) 514-0681 | Email: Jayanta.Debnath@ucsf.edu |
<https://cancer.ucsf.edu/people/debnath.jayanta>

- Types of Scientific Research at UCSF & Societal Expectations of U.S. Scientists
- Rigor and Reproducibility in Research based on the Harvard Radcliffe study on the Reproducibility Crisis shown here: <https://www.youtube.com/watch?v=DEZl0e0J9rs>
- Factors Affecting Reproducibility
- What Good Looks Like - Best Practices in Rigor and Reproducibility
- Beyond History and Analytics - What's in Today's Tool Bag?

Session 2: Responsible and Ethical Research - Misconduct and Social Responsibility (60 min)

Julie Saba, MD, PhD, Professor of Pediatrics, Hematology/Oncology
John and Edna Beck Chair in Pediatric Cancer Research
Phone: (510) 450.7690 | Email: Julie.Saba@ucsf.edu | <https://cancer.ucsf.edu/people/saba.julie>

*Pre-lecture viewing: [Introduction to Research Security](#)

- New Guidance on Foreign Influence and Research Security
- Addressing questionable research practices
- Contemporary Ethical Issues - Overview & Importance of Addressing Conflicts
- Effective Collaboration Practices & Authorship
- Social and Environmental Impacts of Research

Session 3: Responsible Data Management (60 min)

Marina Sirota PhD, Professor & Acting Director, Bakar Computational Health Sciences | Phone: (415) 514-0528 | Email: Marina.Sirota@ucsf.edu | <https://sirotalab.ucsf.edu/#people>

Tomiko Oskotsky, MD, Bioinformatics Programmer, Computational Health Sciences, The Benioff Center for Microbiome Medicine | Phone: 415-476-2695 | Email: Tomiko.Oskotsky@ucsf.edu | <https://microbiome.ucsf.edu/people/tomiko-oskotsky-md>

- Best Practices in Data Management - Qualitative and Quantitative
- New Federal Sharing Requirements
- Developing a Data Management Plan (DMP)
- Open AI, Generative AI, Data Manipulation and Plagiarism
- Data transparency information from Nature and Cell Press journals (refer to comprehensive checklists))
- Data Sharing during PI Transitions
- Getting to Know UCSF & Other Resources

Session 4: Human Subjects Research and Laboratory Animals (60 min)

John Gordon, MD, PhD, Associate Professor in Residence, Department of Medicine | Phone: (415) 353-9888 | Email: John.Gordon@ucsf.edu | <https://cancer.ucsf.edu/people/gordan.john>

*Pre-lecture reading: [A mental health tech company ran an AI experiment on real users. Nothing's stopping apps from conducting more.](#)

- Human subjects research-- COVID-19 Vaccines and CRISPR therapies
- Informed consent monitoring
- Protection of laboratory animals and the role of postdocs in animal welfare
- Approved lab researchers and IACUC protocols
- Policies and best practices on laboratory safety, biosafety, and animal research subjects

Session 5: Authorship, Publication, and Peer Review (60 min)

Mary Helen Barcellos-Hoff, PhD, Professor, Radiation Oncology | Phone: 415-476-8091 | Email maryhelen.barcellos-hoff@ucsf.edu | <https://profiles.ucsf.edu/maryhelen.barcellos-hoff>

*Pre-lecture reading: [From tort law to cheating, what is ChatGPT's future in higher education?](#)

- Best Practices in Authorship and Publication - What Impact Can You Have with Peers?
- Ethics and Ownership of Discoveries
- New Guidance on Text Recycling
- Practicing Responsible Peer Review and Becoming a Reviewer
- Open AI, Generative AI and Plagiarism

Session 6: Racism in Science (60 min)

Tung Nguyen, MD, Stephen J. McPhee, MD Endowed Chair in General Internal Medicine and Professor of Medicine and Associate Vice Chancellor for Research Inclusion, Diversity, Equity, and Anti-Racism | Phone: (415) 353-7900 | Email: Tung.Nguyen@ucsf.edu | <https://medicine.ucsf.edu/people/tung-nguyen#>

Erika Wong, MD, Associate Professor, Pediatrics | Phone: 415-476-5960 | Email: erika.wong@ucsf.edu | <https://profiles.ucsf.edu/erika.wong>

- Racism & Discrimination in Science - the History & Impact
- Developing Inclusive Research Communities
- Creating Inclusive Lab Environments
- How Inclusive Communities Thrive
- Collaborating Across Cultural Barriers

Session 7: Ethical Behavior in Mentoring Research Trainees - What to Expect

Naledi Saul, Director of Career and Professional Development | Phone: (415) 502-1484 | Email Naledi.Saul@ucsf.edu | <https://career.ucsf.edu>

- Appropriate Mentoring and Lab Relationships Between PIs and Postdocs
- Strategies for Having Difficult Conversations
- Resolving Conflicts and Communicating with Impact
- Mentor/Mentee Responsibilities and Relationships
- Mentoring Frameworks and Self-Advocacy

Session 8: UCSF Ethics and Compliance, Conflicts of Interest (COI) (60 min)

Ivana Neff, UCSF Conflict of Interest Unit Manager, Ethics & Compliance | Phone: (415) 476-5566
 | E-mail: Ivana.Neff@ucsf.edu | <https://compliance.ucsf.edu/contacts>

Thomas Lang, PhD, Conflict of Interest Advisory Committee (COIAC) Chair | Phone: 415-476-1323
 | E-mail: Thomas.Lang@ucsf.edu | <https://profiles.ucsf.edu/thomas.lang>

- Understand UCSF COI requirements for Postdocs UPAY585 - personal, professional, financial
- Postdoc Outside Professional Activity at UCSF
- Building a Career-Long Positive Attitude toward Research Ethics
- Reporting UCSF Conflicts of Interest

Discussion Topics Schedule

Session 1: Rigor and Reproducibility in Research: Are We in Crisis?

Session 2: Research Misconduct and Social Responsibility

Session 3: Responsible Data Management

Session 4: Human Subjects Research and Laboratory Animals

Session 5: Authorship, Publication, and Peer Review

Session 6: Racism in Science - Being Inclusive

Session 7: Ethical Behavior in Mentoring Research Trainees

Session 8: UCSF Postdoc Trainee Ethics and Compliance Conflicts of Interest

Additional Online Resources

- [On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition](#)
- [Office for Human Research Protections \(OHRP\)](#)
- [Online Ethics Center for Engineering and Research](#)

Important UCSF Data Resources

- [Data Science & Ed Training Portal](#)
- [UCSF Library Statistics and Big Data Analytics Workshops and Courses](#)
- [Data Science and Open Scholarship \(DSOS\)](#)
- [UCSF Ask an Expert Catalog](#)
- [Parnassus Kalmanovitz Library](#)
- [Mission Bay FAMRI Library](#)

Accommodations for Students with Disabilities

Please contact the Office for Postdoctoral Scholars as soon as possible if you need accommodations, and we will work out the necessary arrangements.

Policy on Violence and Harassment

In the RCR classroom, the expectation is a psychologically safe and participatory community where everyone can fulfill their potential for learning; there is no place for sexual harassment or violence. If your behavior harms another person in this class, you may be removed from the class temporarily or permanently, or from the University. If you or someone you know experiences sexual violence or harassment, there are options, rights, and resources, including assistance with academics, reporting, and medical care.

NIH Requirements for RCR: Updated Guidance

The goals of RCR education and training are to:

- Develop, foster, and maintain a culture of integrity in science.
- Discourage and prevent unethical conduct.

- Empower researchers to hold themselves and others accountable to high ethical standards.
- Increase knowledge of, and sensitivity to, ethical issues surrounding the conduct of research by researchers with diverse backgrounds.
- Improve the ability to make responsible choices when faced with ethical dilemmas involving research.
- Provide an appreciation for the range of accepted scientific practices for conducting research.
- Inform scientists and research trainees about the regulations, policies, statutes, and guidelines that govern the conduct of U.S. Public Health Service-funded research and promote compliance with the same; and,
- Promote a career-long positive attitude toward research ethics and the responsible conduct of research.