



Center for Musculoskeletal Research

## **IND 593-1: Art of Science**

### **Course Co-Directors:**

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Office hours: By appointment

**Course Website:** Blackboard

**Prerequisites:** Graduate standing or permission

### **Course Description:**

This course covers a variety of topics related to the pursuit of scientific inquiry in the context of contemporary biomedical research. The goal is to give students a broad overview of the skills required to be a successful modern scientist and to make students aware of the resources available to acquire those skills. Lectures address a range of topics, including strategies for preparing a manuscript, peer-review, intellectual property, the inner workings of the NIH, and career planning. Lectures are designed for real time interaction, and student/fellows are encouraged to contribute to the discussion.

**Attendance:** Since this class is graded in part on participation, attendance is mandatory. Students are expected to arrive on time, fully attend and participate in ALL class sessions. Extenuating circumstances causing absence should be discussed with the instructor **before** the absence occurs, not post-facto. If you must miss a class, you can make it up by submitting a two-page paper on the topic for that day.

### **Assessment and Grading Criteria:**

50% Attendance/participation

50% Completion of three 500-word reflections on how the topics covered in this course have enhanced and facilitated your professional development as a scientist. Reflections are due by December 14, 2022 and can be submitted under the "Assignments" tab on Blackboard.

**E-mail:** You should only use email as a tool to set up a one-on-one meetings with Dr. Nichols, Dr. Muthukrishnan, or the course lecturers. Your message should include at least two times when you would like to meet and a brief (one-two sentence) description of the reason for the meeting. Emails sent for any other reason will not be considered or acknowledged. Participation in class discussions asking questions is strongly encouraged during class. For more in-depth discussions, please plan to meet in person (via Zoom). Our conversations should take place in person rather than via email, thus allowing us to get to know each other better and fostering a more collegial and effective learning atmosphere (Courtesy of S.S Duvall, Salem College).

**Academic Integrity:** Academic integrity is a core value of the University of Rochester. Students who violate the University of Rochester University Policy on Academic Honesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since academic dishonesty harms the individual, other students, and the integrity of the University, policies on academic dishonesty are strictly enforced. For further information on the University of Rochester Policy on Academic Honesty, please visit the following website:

[http://www.rochester.edu/college/honesty/docs/Academic\\_Honesty.pdf](http://www.rochester.edu/college/honesty/docs/Academic_Honesty.pdf)

Students in this course are expected to conduct themselves in an honest and ethical manner, as well as to respect the intellectual work of others. Students should complete all required readings and work on their own, though open discussions with others regarding course content and issues raised in the case studies is always encouraged. Any writing assignment completed in lieu of an approved absence must represent the student's own work, with any ideas or text taken from others being appropriated identified and cited.

**Accommodations for students with disabilities:** Students needing academic adjustments or accommodations because of a documented disability must contact the Disability Resource Coordinator for the school in which they are enrolled (see link below for contact information). <http://www.rochester.edu/eoc/DisabilityCoordinators.html>

**Textbook:**

No textbooks are assigned for this course.

**Time & Place:**

Mondays 1:00-1:50 pm

Room changes each week (listed below)

**Lecture Schedule:**

<b>Date</b>	<b>Lecture Title</b>	<b>Presenter</b>	<b>Room</b>
9/12/22	Career Fate Determination	Alissa Clark	G-9425 (Class of '62 auditorium)
9/19/22	Intellectual Property and Entrepreneurship	Ben Miller, PhD	1-9576 (Ryan Case Method Room)
9/26/22	The F31/F32 Fellowship Application	Anne Nichols, PhD, and Trainee Panel	1-9576 (Ryan Case Method Room)
10/3/22	Publish or Perish: Step by Step Process for Writing a Manuscript	Gowri Muthukrishnan, PhD	1-9576 (Ryan Case Method Room)
10/10/22	Fall Break	none	none
10/17/22	Roadmap to the NIH	Edward Schwarz, PhD	2-6424 (SMD Large auditorium)
10/24/22	Peer review: Being a constructive Critic & Responding to a critique	Jennifer Jonason, PhD	G-9425 (Class of '62 auditorium)
10/31/22	The Art of Constructive Feedback and Mentoring Up	Panel Discussion	2-6424 (SMD Large auditorium)
11/7/22	Considerations for Careers in Industry	CMSR Alumni Panel	1-7619 (Lower Adolph)
11/14/22	Managing Grad School and Beyond	CETL	G-9425 (Class of '62 auditorium)
11/21/22	Building your Professional Network	CMSR Faculty Panel	G-9425 (Class of '62 auditorium)
11/28/22	Social Media for Scientists	Chia-Lung Wu, PhD and URM Communications	G-9425 (Class of '62 auditorium)
12/5/22	Scientific Communication	Dina Markowitz, PhD	G-9425 (Class of '62 auditorium)